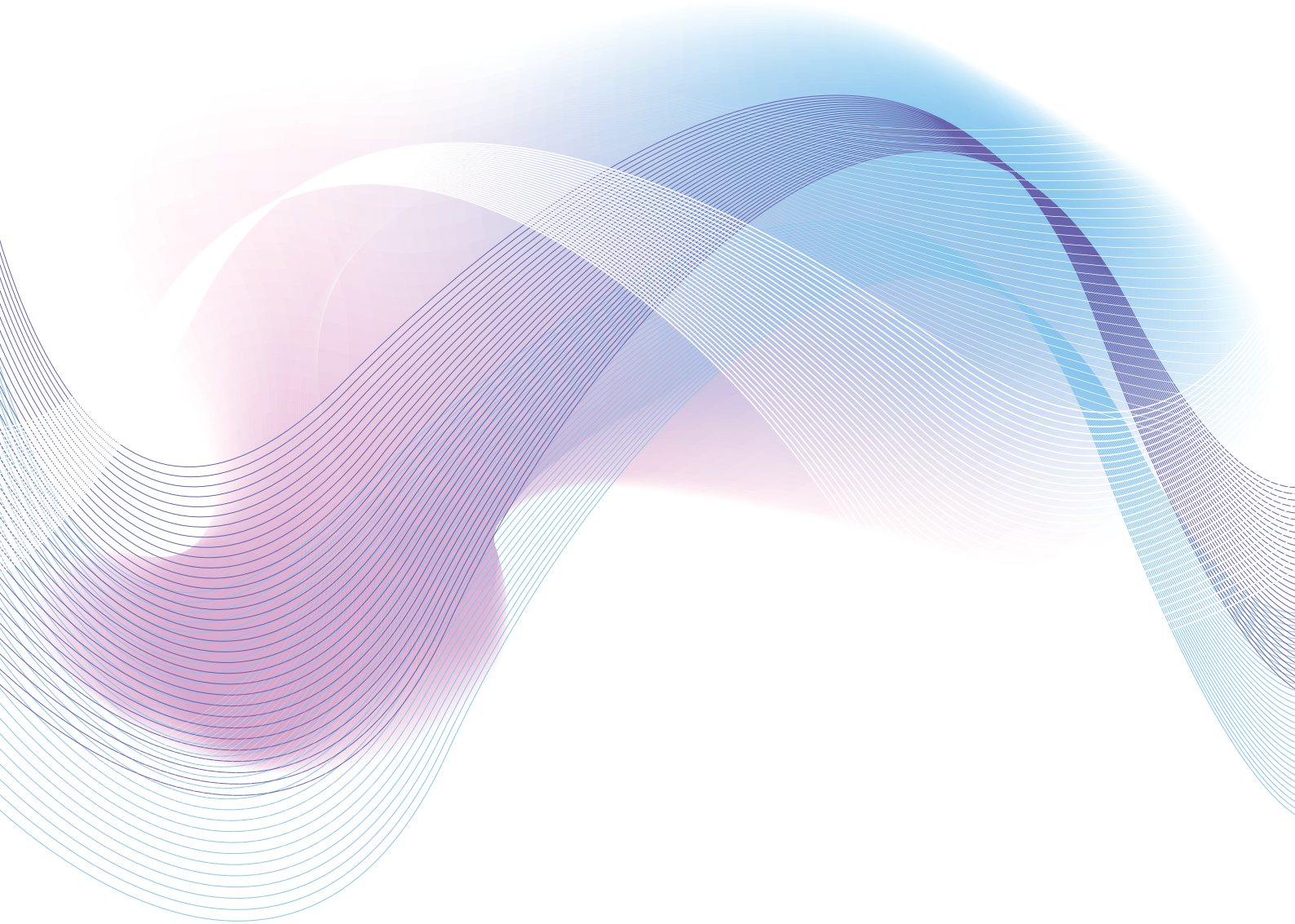
Pension Protection Fund



The Purple Book

DB PENSIONS UNIVERSE RISK PROFILE | 2009

The Pensions Regulator

Purple 2009 gives the most comprehensive picture to date of the risks faced by PPF-eligible defined benefit pension schemes.

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1 Executive summary

This is the fourth edition of the Pensions Universe Risk Profile (The Purple Book), a joint annual publication by the Pension Protection Fund (the PPF) and the Pensions Regulator (the regulator) which focuses on the risks faced by defined benefit (DB) pension schemes, predominantly in the private sector.

1. Introduction

The recession raises risks for DB schemes

The main focus in each year's Purple Book is the position at the end of March for the year in question, and a comparison of how risks have changed over the previous year. The economic and financial market environment deteriorated dramatically over the 12 months to 31 March 2009, not just for the UK but for most major economies, leading to heightened risks for DB pension schemes:

- The UK economy went into recession in the second quarter of 2008 and by the first quarter of 2009 GDP had fallen by 5.0 per cent, with further declines in the second and third quarters.
- The Insolvency Services' company liquidation rate rose from 0.6 per cent in the 12 months to the first quarter of 2008 to 0.8 per cent in the 12 months to the first quarter of 2009 with a further rise to 0.9 per cent by the third quarter.
- Equity markets saw large declines over the year to 31 March 2009 with the FTSE all share index down by 29 per cent and the S&P 500 down 40 per cent.
- Government bond yields fell sharply, 10 year gilt yields falling from 4.4 per cent to 3.2 per cent while 10 year AA corporate bond yields declined from 5.6 per cent to 4.8 per cent.
- The Bank of England reduced its policy rate from 5.25 per cent to 0.5 per cent, the lowest for 300 years and embarked on quantitative easing.

Table 1.1 | Economic and financial environment

	End of March 2006	End of March 2007	End of March 2008	End of March 2009	End of October 2009
GDP growth year-on-year	3.2%	2.4%	2.2%	-5.0%	-5.1%*
Insolvency rate – in 12 months to	0.70%	0.60%	0.60%	0.80%	0.9%*
FTSE All-share	3,487	3,848	3,550	2,509	3,342
10 year gilt yield	4.4%	5.0%	4.4%	3.2%	3.7%
10 year AA corporate bond yield	4.9%	5.5%	5.6%	4.8%	4.7%
Bank of England policy rate	4.5%	5.25%	5.25%	0.5%	0.5%

Source: Office for National Statistics, the Insolvency Service, Bloomberg

*Figures are for Q3 2009

The recession increased the risk of insolvency for companies sponsoring DB schemes while financial market movements worsened scheme funding.

The position of markets at 31 March 2009 was only a little better than the lows for equity markets and gilt yields seen on 3 March 2009. Since 31 March 2009, growth has returned to a number of economies, equity markets have seen strong recoveries and gilt yields have also risen.

Purple 2009 covers almost all eligible schemes

Much of the analysis of the 2009 Purple Book ('Purple 2009') is based on new information from scheme returns issued in December 2008 and January 2009 and returned to the regulator by 31 March 2009. This data covers 6,885 PPF-eligible DB schemes - some 97 per cent of the total number and some 99 per cent of estimated total liabilities. The 2009 dataset is similar in size to that used for the Purple Book 2008 and significantly larger than the datasets used in the first two Purple books (5,772 and 5,892 respectively). The availability of a larger dataset reflects, among other factors, improvements to the design of the scheme return intended to permit better data validation procedures.

Comparisons are made not only with the Purple Books for 2006, 2007, and 2008 but also with the extended Purple 2006, 2007, and 2008 datasets, covering 7,751, 7,542 and 7,262 schemes respectively. These extended datasets more fully reflect the universe of PPF-eligible schemes in each year. Their construction became possible each year following the submission and cleaning of further scheme information as part of the PPF levy invoicing and collection processes. The decline in the eligible universe reflects such factors as scheme mergers, schemes transferring into the PPF and better information on eligibility. Purple 2009 also includes comparisons of the funding position of DB schemes in the 2009 dataset at 31 March 2009, 31 March 2008, 30 March 2007 and 31 March 2006. The publication puts all of this information into context by using other data sources to look at trends in key variables.

The Purple Books have been based on the most comprehensive datasets extracted from the DB pensions' universe to date, representing a step change in available information, particularly for small and medium-sized schemes. The publications have focused on the risk of scheme members not receiving promised benefits and of claims on the PPF. These in turn depend on two key elements, namely the risk of the sponsoring employer becoming insolvent and the extent of scheme underfunding. The main focus of this publication is risk as at 31 March 2009. Since then risks will have eased somewhat given the impact of improving financial markets and signs of insolvencies falling back. As time goes on, the Purple data will provide important information on trends in DB pension schemes. Comments and suggestions for improvement of the Purple Book are again welcome.

2. The data

- In Purple 2008, the PPF-eligible defined benefit (DB) universe was estimated to be 7,400, while the analysis covered a sample of 6,898 PPF- eligible schemes.
- The set of 6,898 schemes has now been augmented to produce an extended Purple 2008 dataset, covering a total of 7,262 schemes. This gives a best estimate of the eligible universe for the 2008/09 levy year of approximately 7,300 schemes.
- Comparisons of some of the key analyses using the Purple 2008 and the extended Purple 2008 datasets show that most of the findings are little affected.
- In Purple 2009 we have been able to use a dataset of 6,885 PPF-eligible schemes, covering around 97 per cent of the universe of schemes and 99 per cent of estimated liabilities. This is a similar sample to that used in Purple 2008 and much larger than the samples used in Purple 2007 and Purple 2006 (comparable figures for the Purple 2007 dataset are 76 per cent of schemes and 90 per cent of estimated liabilities).
- The scheme return data for these schemes include valuation information on scheme assets and liabilities, asset allocation, the participating employers, scheme type and status, membership details, the trustees and their advisers.
- Further information has come from electronic forms completed on the regulator's Exchange system covering items such as deficit reduction contributions (DRCs) and contingent assets.
- The scheme return valuation data has been used to produce estimates of section 179 (s179) funding for the Purple 2009 dataset at common dates (31 March 2006, 30 March 2007, 31 March 2008 and 31 March 2009) for comparison.
- Because of different datasets, the figures shown for funding levels as at 31 March 2008 in Purple 2009 are different from those shown for the same date in Purple 2008.
- Liabilities on a s179 basis are, broadly speaking, what would have to be paid to an insurance company to take on the risk of paying PPF compensation in the event of employer insolvency.
- Although both the PPF and the regulator use many measures of insolvency risk for analysis and modelling, the main focus in Purple is on the insolvency failure scores supplied by Dun & Bradstreet (D&B). The failure scores are designed to predict the likelihood of a company ceasing operations without paying all creditors over the next 12 months. D&B failure scores are used in the PPF's risk-based levy calculations.

3. Scheme demographics

- The proportion of schemes open to new membership and new accrual continues to decline. Open schemes constitute 27 per cent of the Purple 2009 sample, down from 31 per cent in 2008 and 36 per cent in 2007.
- Thirty seven per cent of scheme members were members of open schemes at 31 March 2009, down from 44 per cent at 31 March 2008 and 50 per cent at 30 March 2007.

- Scheme memberships for the Purple 2009 sample totalled 12.4 million. The largest category of scheme memberships is deferred (43 per cent). Thirty-six per cent are current pensioner memberships, and 21 per cent are members actively employed by the sponsor of their pension scheme.
- As scheme size increases, there is a tendency for the proportion of pensioner members of a scheme to increase.
- Schemes sponsored by firms in the manufacturing sector continue to dominate the Purple sample, constituting 27 per cent of s179 liabilities compared with the sector's 12 per cent share of economic output.

4. Scheme funding

- The s179 information for the Purple 2009 dataset of 6,885 schemes is rolled forward from the dates given in the scheme return to 31 March 2009 and rolled back to 31 March 2008, 30 March 2007, and 31 March 2006.
- Movements in financial markets have resulted in large changes in funding between the four dates.
- The aggregate funding position on a s179 basis has deteriorated from a surplus of £12.3 billion (a funding level of 101.5 per cent) at 31 March 2008 to a deficit of £200.6 billion (a funding level of 79.5 per cent) at 31 March 2009. At 30 March 2007, there was an aggregate surplus of £87.4 billion, a funding level of 111.4 per cent.
- The average full buy-out funding level has decreased from 62.9 per cent at 31 March 2008 to 57.7 per cent at 31 March 2009.
- Funding on the accounting (FRS17) basis has also deteriorated from 100.9 per cent at 31 March 2008 to 93.5 per cent at 31 March 2009.
- As in Purple 2008, liabilities and deficits have also been estimated using the Technical Provisions (TP) measure. These are the deficits that pension schemes must remove as part of the scheme funding process.
- The deficit on the TP basis was £329 billion at 31 March 2009, up from £98 billion at 31 March 2008, with the funding ratio falling from 89.7 per cent to 70.3 per cent. The TP estimates should, however, be taken as illustrative since they are largely based on relevant ratios of TPs to s179 liabilities for sub-samples of the Purple dataset.
- Each of the four funding measures deteriorated between 31 March 2008 and 31 March 2009. This was not the case between 30 March 2007 and 31 March 2008 when funding on the FRS17 measure improved while the three others deteriorated. The improvement on the FRS17 measure reflected the impact of higher corporate bond yields, as a result of the financial crisis, on discount rates.
- Size of scheme remains an important indicator of funding level, with very large and very small schemes by number of members showing materially higher levels of funding than those of intermediate sizes.
- Mature schemes (those with a higher proportion of liabilities relating to pensioners) also show higher funding levels.

5. Funding sensitivities

- All the funding sensitivities in this chapter are on a s179 basis.
- Changes in estimated market conditions and financial and demographic assumptions since January 2003 have caused the monthly aggregate funding position of pension schemes to vary by around £375 billion (with the greatest surplus in June 2007 at £173.4 billion and the greatest deficit in March 2009 at £200.6 billion).
- The estimated number of schemes in deficit was at its lowest point in June 2007 at around 3,000 schemes (around 43 per cent of the dataset) and peaked in March 2009 at around 5,900 (around 85 per cent).
- Since March 2009, a recovery in equity markets and rising bond yields have resulted in an improvement in aggregate scheme funding of £77.6 billion by the end of October. In addition, the change in actuarial assumptions which took effect at the end of October improved the estimated funding position by a further £70.5 billion[1]. These together meant that the aggregate deficit fell to £52.5 billion.
- An increase in longevity, such that the experienced mortality is now equivalent to that of an individual two years younger, would increase schemes' liabilities by around five per cent (£51 billion).
- If the assumed rate of inflation increases by 0.1 per cent, with nominal interest rates unchanged, then the s179 liabilities for schemes increase by approximately 0.9 per cent or £9 billion.
- A 0.1 per cent (10 basis points) reduction in gilt yields raises scheme liabilities by 2 per cent and raises scheme assets by 0.4 per cent. A 2.5 per cent rise in equity markets raises scheme assets by 1 per cent.
- Broadly a 0.1 per cent change in gilt yields is equivalent in its impact on scheme funding at 31 March 2009 to a 6.4 per cent change in equity prices compared with 3.4 per cent at 31 March 2008 in Purple 2008.
- The increased sensitivity to changes in gilt yields reflects the fact that at the end of March 2009 the aggregate deficit was much larger together with the low absolute level of bond yields (so that a 10 basis point change is a bigger percentage change in bond yields).
- The sensitivities do not take into account any possible hedging of interest rates, inflation, equities or longevity.

6. Insolvency risk

- The UK recession, which started in the second quarter of 2008, resulted in a steep rise in the level of corporate liquidations.
- The level of liquidations in the third quarter of 2009 was over 50 per cent higher than at the low-point in 2007. In the twelve months ending in September 2009 approximately 0.9 per cent of companies went into liquidation compared with a low point of 0.6 per cent in 2007.
- Although company liquidations rose over the first two quarters of 2009 the rate of increase dropped considerably. In the third quarter company liquidations fell by 4.7 per cent quarter-on-quarter compared with quarter-on-quarter increases of over 10 per cent during 2008.

1 For more details see the November PPF 7800 release: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_7800_November_09.pdf.

- The rate of company liquidations to date has not been as severe as in other comparable periods of recession such as the early 1990s.
- The estimated number of schemes entering into the PPF assessment period rose in the fourth quarter of 2008 and first quarter of 2009. Since then it has fallen, in a similar way to the decline in company liquidations for the whole economy.
- The weighted average one-year ahead insolvency probability, derived from Dun & Bradstreet (D&B) failures scores, was 0.4 per cent as at 31 March 2009. Comparisons with earlier years are difficult because of changes in D&B rating methodology.

7. Asset allocation

- Equities and 'gilts and fixed interest' continue to dominate scheme asset allocation. The joint share of equities and gilts and fixed interest has, however, declined from 89.4 per cent in 2006 to 83.5 per cent in 2009.
- In 2009, the share of gilts and fixed interest increased to 37.1 per cent from 32.9 per cent in Purple 2008. Meanwhile, the equity share dropped to 46.4 per cent in Purple 2009 from 53.6 per cent in Purple 2008.
- In 2009, the share of other investments increased to 6.0 per cent from 3.8 per cent in 2008 and 2.5 per cent in 2007.
- Flow data from the Office for National Statistics (ONS) shows a continuing disinvestment in equities, and more recently, disinvestment in bonds.
- As found in earlier Purple Books, more mature schemes tend to invest more heavily in gilts and fixed interest and less in equities.
- Better funded schemes tend to hold a lower percentage of assets in equities.
- There is no evidence of investment patterns differing by the level of estimated insolvency risk.
- A bigger share of total scheme equity holdings is in overseas equities (53.8 per cent) than in UK equities (44.2 per cent). A small proportion of equities are held in unquoted equities.
- In Purple 2008, total scheme holdings of gilt and fixed interest were spread fairly evenly between government (33.2 per cent), corporate (32.6 per cent) and index-linked (33.9 per cent). In Purple 2009, however, government and index-linked securities fell to 29.0 per cent and 32.6 per cent respectively and corporate bonds saw a large increase to 38.3 per cent.
- Looking at simple averages of each scheme's asset allocation, rather than the shares of each asset class in total assets, gives a rather different picture. The share of UK equities is then considerably bigger (57.6 per cent) than that for overseas equities (41.7 per cent), although the gap has narrowed from Purple 2008. The share of government fixed interest securities is considerably higher (45.6 per cent) than the index-linked average (17.1 per cent).
- A comparison between simple averages and weighted averages indicates that smaller schemes have a greater slant within equities to UK equities, and within bonds to conventional government bonds.

8. Risk developments

- The Long-Term Risk Model (LTRM) is the key tool that the Board of the Pension Protection Fund (PPF) uses to understand and quantify the risks it faces over the long-term. It helps the Board of the PPF assess the level of resources required to meet potential future claims.
- There was a marked rise in long-term risk to the PPF between March 2008 and June 2009.
- The escalation of long-term risk is the result of deteriorating scheme funding, a worsening economic outlook, and rising sponsor insolvency probabilities.
- Total weighted deficit (scheme insolvency probability multiplied by scheme deficit) has risen to £481.5 million in Purple 2009 from £268.4 million in Purple 2008.
- The proportion of weighted deficit attributable to schemes with the weakest insolvency probabilities is 20 per cent, down from 36 per cent in 2008.

9. Levy payments to the PPF

- The PPF is expecting to collect £651 million in respect of the levy in the 2008/09 levy year. This is £24 million less than the levy estimate of £675 million announced in November 2007. The final estimate is closer to the initial estimate than in earlier years because of better data, and changes to the timing of setting the levy scaling factor for the 2008/09 levy year.
- The levy raised in 2008/09 is £66 million more than the previous year and more than double that collected in 2006/07.
- The number of schemes paying no risk-based levy was 608, similar to the 590 in 2007/08 (representing approximately nine per cent of the total number of schemes and 10 per cent of total liabilities).
- The top 10 levy payers paid almost the same proportion, 10 per cent of total levy, in 2008/09 as in the previous year.
- Levy paid as a percentage of assets was unchanged in 2008/09 at 0.08 per cent.
- Schemes with sponsoring employers in manufacturing saw the largest increase in levy payments from £181.6 million to £267.8 million, around 40 per cent of the total levy.
- In 2008/09 the risk-based levy was capped at 1.0 per cent of a scheme's s179 liabilities, compared with 1.25 per cent in 2007/08.
- Five hundred and sixty four schemes had their risk-based levy capped in 2008/09, eight per cent of the total. The liabilities of those capped schemes totalled £9.8 billion or one per cent of total liabilities.

10. Schemes in the PPF assessment process

- There were 240 schemes (201,000 members) in the PPF's assessment period as at 31 March 2009, compared with 217 (123,000 members) a year earlier.
- The rise in schemes in assessment reflects 92 new schemes entering and remaining in assessment, 54 schemes transferring into the PPF and 15 being rescued, deemed to be ineligible or withdrawn.
- Where the sponsoring employer's industry is known, just over half the schemes in assessment came from manufacturing (52 per cent) while 11 per cent came from finance, insurance and real estate, and 11 per cent from services.
- As at 31 March 2009, on a s179 basis, the aggregate assets of schemes in assessment totalled £6.6 billion, and aggregate liabilities £9.4 billion. Liabilities averaged £39.1 million per scheme and assets averaged £27.6 million.
- Thirty eight per cent of the schemes in assessment have liabilities below £5 million although schemes this small make up only 27 per cent of the Purple 2009 dataset.
- The aggregate funding level (total assets divided by total liabilities) of the schemes in assessment at 31 March 2009 was 70.5 per cent. This is below both the aggregate funding level of the schemes in the Purple 2009 dataset (79.6 per cent) and the aggregate funding level of the schemes in assessment a year earlier (78.3 per cent).
- The larger schemes in assessment are, on average, better funded than the smaller schemes. Schemes with over £50 million in assets have an average funding level of 77.5 per cent. Those with less than £50 million in assets have an average funding level of 66.5 per cent.
- The asset allocation of schemes in assessment from the scheme return prior to their entering the assessment period showed the largest shares of their assets in equities (45 per cent) and gilts and fixed interest assets (28 per cent). This equity share is lower than the Purple 2009 dataset share of 47 per cent of assets. Once in assessment, schemes tend to follow an investment strategy that is more oriented towards gilts and fixed interest holdings.

11. PPF compensation

- The PPF made its first compensation payments in the 2006/07 financial year following the first scheme transfer in November 2006. A total of £1.4 million was paid out in 2006/07, rising to £17.3 million in 2007/08, and £37.6 million in 2008/09.
- At 31 March 2009, 12,723 members were in receipt of PPF compensation, up from 3,596 a year earlier. Average compensation in payment stood at £3,765 a year. The number of members with compensation not yet in payment (deferred members) as at 31 March 2009 totalled 18,009. For those members, the average compensation accrued was £3,654 a year.
- At 31 March 2009, males constituted 78 per cent of both pensioner and deferred members and received more than 80 per cent of compensation in both categories.
- Spouses and dependants account for 15 per cent of those currently in receipt of compensation, receiving 10 per cent of compensation in payment.
- More than 75 per cent of compensation is attributable to former employees of the manufacturing sector.
- At 31 March 2009, 29 pensioners were affected by the compensation cap (£28,742.69 a year for age 65 in 2009/10 after the 90 per cent scaling).

12. Risk reduction

- The total number of contingent assets (CAs) in place has risen by 30 per cent, from 452 for the 2008/09 levy year to 587 for 2009/10.
- The CAs in place for 2009/10 reduced the respective schemes' levies by a total of around £100 million.
- Schemes in the Purple 2009 dataset (excluding those schemes which were in a PPF assessment period as at 31 March 2009) had certified approximately £26.5 billion of DRCs by 7 April 2009.
- DRC certificates were submitted by schemes to the PPF in order to mitigate their levy bill by enabling a more up-to-date assessment of the schemes funding position.

- The DRCs were not only paid by companies sponsoring the largest schemes; some 50 per cent of the £26.5 billion was paid by employers sponsoring schemes with fewer than 10,000 members.
- MQ5 data from the ONS covering 340 large pension schemes, including 100 local authorities, suggest that special contributions have risen slightly in 2009 following a sharp decline in 2008 from the levels seen in 2006 and 2007.
- The scheme funding requirements introduced by the Pensions Act 2004 (and regulated by the Pensions Regulator) continue to play a key role in DB risk reduction and this is taken into account in the PPF's long-term risk monitoring.
- Schemes continue to reduce investment risk through diversification (with a greater proportion of schemes investing in alternative assets), by shifting from equity to fixed income securities, and through the use of derivatives to hedge inflation and interest rate risk.
- Liability-driven investment (LDI) strategies continue to take root. The National Association of Pension Funds (NAPF) survey data indicate that 26 per cent of schemes had implemented an LDI strategy by 2009, up from 23 per cent in 2008.
- Quarterly surveys by F&C Asset Management suggest that while inflation hedging activity has grown sharply in the second and third quarters of 2009, interest rate hedging has declined.

All the PPF/TPR sourced statistics in this publication are produced in accordance with the UK Statistics Authority Code for official statistics which came into force in January 2009.

All the information contained in the Purple Book is for general interest only and we would like to draw the attention of the reader to the approximate nature of all calculations of an actuarial nature. For more information please see the detailed descriptions of the calculation methodology in each chapter of the text.

2 The data

2.1 Summary

- The main body of the analysis in the Purple Book 2009 ('Purple 2009') is based on new scheme returns for a dataset of 6,885 defined benefit (DB) schemes predominantly in the private sector.
- The dataset covers 97 per cent of schemes in the estimated PPF-eligible universe of around 7,100 schemes, and 99 per cent of the total estimated section 179 (s179) liabilities, and 12.4 million memberships.
- The dataset is similar in size to that used in the Purple Book 2008 (6,898, 93 per cent of the eligible universe) and significantly larger than those used in Purple 2006 and Purple 2007, 5,772 and 5,892 schemes respectively.
- Analysis of the expanded 2008 dataset of 7,262 PPF-eligible DB schemes shows that most findings are little affected, reflecting the fact that the original dataset covered a very high share of total liabilities.

2.2 Introduction

Purple 2009 is based on a sample of 6,885 schemes.

The PPF covers certain defined benefit (DB) occupational schemes and DB elements of hybrid schemes. Some DB schemes will be exempt from the PPF, including:

- unfunded public service schemes;
- public sector schemes providing pensions to local government employees;
- schemes to which a Minister of the Crown has given a guarantee; and
- schemes which began to wind up, or were completely wound up, prior to 6 April 2005.

For a more comprehensive list see 'eligible schemes' on the PPF's website at: www.pensionprotectionfund.org.uk/About-Us/eligibility/Pages/Eligibility.aspx

Purple 2009 uses a dataset of 6,885 PPF-eligible schemes. The dataset is drawn from the universe of DB schemes eligible for protection by the PPF and liable to pay the PPF levies. The members of such schemes may be entitled to compensation should an insolvency event occur in relation to a scheme's employer.

This 2009 dataset covers around 97 per cent of the estimated total PPF-eligible DB universe in terms of numbers of schemes and 99 per cent in terms of liabilities. It covers all large schemes and around 95 per cent of small schemes (under 100 members). The dataset used this year is similar in size to that in 2008 and larger than those used in the 2006 and 2007 Purple Books (5,722 and 5,892 respectively). The availability of a larger sample in 2008 and 2009 reflects such factors as an improved design of the scheme return to include better validation on completion of the form (thereby reducing the need for subsequent correction), together with greater understanding of the data.

The eligible universe in 2009 is now estimated at around 7,100 schemes, down from around 7,300 in 2008 and 7,500 in 2007. The fall in the size of the universe reflects such factors as scheme mergers, schemes' buying out benefits with an insurance company, and schemes' transferring to the PPF.

2.3 Primary sources

Scheme returns are the main primary data source.

The information used in Chapters 3 to 8 of this publication comes from three primary sources, as described below.

Scheme returns provided to the Pensions Regulator

The scheme returns include valuation information on scheme assets and liabilities, asset allocation, employers, scheme type and status, membership details, trustees and their advisers. The scheme returns for this year and last give more detailed information on asset allocation, for example on the split of equities between domestic and overseas, and the division of fixed interest between government bonds, corporate bonds and index-linked.

Most of the analysis in this year's publication is based on new scheme returns issued in December 2008 and January 2009 and returned by 31 March 2009. The 2009/10 levy invoices will, in most cases, be based on information submitted before 1 April 2009.

In this publication, there are also comparisons with the information from the scheme returns:

- issued between June 2005 and June 2006, which formed the basis for the 2006/07 levy and most of the analysis in Purple 2006;
- issued in autumn 2006, which formed the basis for the 2007/08 levy and most of the analysis in Purple 2007; and
- issued between December 2007 and January 2008, which formed the basis for the 2008/09 levy and most of the analysis in Purple 2008.

The returns issued since autumn 2006 have had to be returned by end-March of the following year.

Voluntary form reporting

Electronic forms are available on the Pensions Regulator's website for pension schemes to provide data regarding contingent assets (CAs), valuation results on a s179 basis, deficit reduction contributions (DRCs) and the s179 valuation results following block transfers. The total value of DRC certificates certified before 7 April 2009 included in the funding estimates in Purple 2009 is £26.5 billion, which would raise total scheme assets by around 3 per cent at 31 March 2009. 587 CAs were in place of relevance to the 2009/10 levy with 83 per cent of them being Type A. More information on DRCs and CAs is given in Chapter 12, Risk reduction.

Insolvency failure scores supplied by Dun & Bradstreet (D&B)

D&B failure scores (running from 1 to 100), which cover all the scheme sponsors of PPF-eligible DB schemes, are designed to predict the likelihood that a sponsor 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, (more details on the D&B scores are given in Chapter 6, Insolvency risk.) Internally, the regulator and the PPF employ a wide range of approaches to risk and insolvency probabilities. However, in Purple 2009 the main focus is on D&B failure scores as they are available for the widest range of companies and organisations in the PPF-eligible universe.

The data used in Chapter 9, Levy payments, Chapter 10, Schemes in assessment, Chapter 11, PPF compensation are not based on the scheme return information but are derived from the PPF's business operations.

2.4 The PPF-eligible DB universe

In Purple 2006, the PPF-eligible DB universe was estimated to be 10,800 schemes (based mainly on numbers from the regulator's scheme return register). In Purple 2007, the universe was revised down to 7,800 schemes because review processes (such as preparation for levy invoicing) revealed a large number of schemes that did not fulfil the PPF-eligibility criteria. The two most common reasons for which schemes were determined to be ineligible were: defined contribution (DC) schemes being erroneously described as DB, and schemes in the register having begun or completed wind-up prior to the PPF's commencement in April 2005. Full information on invoices issued and payments made suggested universes in 2007 and 2008 of around 7,500 and 7,300 respectively. Assuming a similar downward trend in the universe in the latest year would point to a 2009 universe of around 7,100. Table 2.1 illustrates how each of the four datasets and universes are split by scheme size (as defined by number of members).

Annex A compares some of the key analyses using the original Purple 2008 dataset of 6,898 schemes and the extended Purple 2008 dataset of 7,262 schemes. The move to the extended dataset has a smaller impact this year than last year, when moving from the Purple 2007 dataset to the extended 2007 dataset, because the Purple 2008 dataset was much more comprehensive. The general conclusion is that most of the findings using aggregates and weighted averages are little affected, reflecting the fact that the original dataset covered a very high share of total liabilities. There were some small effects on simple averages due to the extended data comprising the addition of schemes that were smaller than average. For example, the average scheme membership size fell from nearly 1,800 to around 1,740.

The PPF-eligible universe is estimated to contain around 7,100 schemes in 2009.

Table 2.1 | Distribution of schemes by scheme size (number of members)

Number of members	Less than 100	100-999	1,000-4,999	5,000-9,999	More than 10,000	Total schemes*
Estimated 2006 DB PPF-eligible universe	5,900	3,500	950	200	250	10,800 (7,800)
Purple 2006 dataset	1,812	2,799	756	175	230	5,772
Estimated 2007 DB PPF-eligible universe	2,840	3,570	930	210	250	7800 (7,500)
Purple 2007 dataset	1,858	2,877	802	160	195	5,892
Estimated 2008 DB PPF-eligible universe	2,724	3,341	919	192	224	7400 (7,300)
Purple 2008 dataset	2,468	3,132	884	191	223	6,898
Estimated 2009 DB PPF-eligible universe	2,566	3,226	893	188	227	7,100
Purple 2009 dataset	2,439	3,162	877	180	227	6,885
Purple 2009 dataset as a percentage of 2009 PPF-eligible universe	95.1%	98.0%	98.2%	95.7%	100.0%	97.0%

Source: PPF/The Pensions Regulator
* Final estimates in brackets.

Purple 2009 covers around 97 per cent of schemes and 99 per cent of liabilities.

Table 2.2 | Distribution of s179 liabilities (£ billion) by scheme size*

Number of members	Less than 100	100-999	1,000-4,999	5,000-9,999	More than 10,000	Total liabilities (£ billion)
Estimated 2006 DB PPF-eligible universe	25	82	128	57	464	776
Purple 2006 dataset	8	66	102	67	427	669
Estimated 2007 DB PPF-eligible universe	11	79	118	84	498	790
Purple 2007 dataset	8	70	113	72	448	711
Estimated 2008 DB PPF-eligible universe	12	84	133	92	513	833
Purple 2008 dataset	9	77	130	92	503	811
Estimated 2009 DB PPF-eligible universe	10	79	134	91	519	833
Purple 2009 dataset	9	78	132	87	519	825
Purple 2009 dataset as a percentage of 2009 PPF-eligible universe	95.1%	98.0%	98.2%	95.7%	100.0%	99.0%

Source: PPF/The Pensions Regulator

*All liabilities are calculated on a s179 basis as at 31 March 2006. Caution should be exercised in comparing liabilities due to differences in roll forward methodologies.

NB: The different compositions of schemes in each membership size group means care should be taken in comparing results from the Purple 2006, 2007, 2008 and Purple 2009 datasets.

2.5 Funding estimates

This publication uses data that, as far as possible, reflect the position at a common date, 31 March 2009, for comparison with the position presented at end March in the previous three Purple Books. As explained in Chapter 4, funding comparisons between the Purple 2009, 2008, 2007, and 2006 datasets would be misleading due to the different schemes those datasets include. Consequently, to compare funding positions, Chapter 4, Scheme funding, utilises the Purple 2009 dataset as at 31 March 2009 and the Purple 2009 dataset 'rolled back' to 31 March 2008, 30 March 2007 and 31 March 2006.

The bulk of the analysis uses funding estimates on a section 179 (s179) funding basis. This is, broadly speaking, what would have to be paid to an insurance company to take on the payment of PPF levels of compensation.[2]

For the purpose of this publication, actuaries at the PPF and the Pensions Regulator have also produced FRS17 and full buy-out estimates of the funding position for the Purple 2009 dataset as at the end of March in 2006, 2007, 2008 and 2009. As was the case last year, liabilities and deficits have also been estimated using the Technical Provisions measure. More information on the methodology used in deriving the various estimates is given in Chapter 4, Scheme funding.

2 For calculation of the 2009/10 risk-based levy, the PPF uses estimates of the scheme's funding position on a s179 basis as at 31 March 2008.

3 Scheme demographics

3.1 Summary

- Open schemes constitute 27 per cent of the Purple 2009 sample compared with 31 per cent in 2008.
- Thirty seven per cent of scheme members in the Purple 2009 sample were members of open schemes.
- Scheme memberships for the Purple 2009 sample totalled 12.4 million. The largest category of scheme membership is deferred (43 per cent). Thirty six per cent are current pensioner memberships and 21 per cent are members actively employed by the sponsor of their pension scheme.
- As scheme size increases, there is a tendency for the proportion of pensioner memberships of a scheme to increase.
- Schemes sponsored by firms in the manufacturing sector continue to dominate the Purple sample, constituting 32 per cent of schemes and 27 per cent s179 liabilities compared with the sector's 12 per cent share of economic output.

3.2 Introduction

This chapter describes the composition of the dataset used in this year's Purple Book. It gives figures for the total number of schemes and total scheme membership, as well as giving a breakdown by size, maturity, scheme status and industrial classification.

As noted in Chapter 2, the Purple dataset covers the vast majority of the defined benefit universe. The 6,885 schemes in the sample represent 97 per cent of the estimated 7,100 schemes in the PPF-eligible universe and 99 per cent of total universe liabilities. Any differences between the features of the Purple 2009 dataset and the universe are likely to be small.

Comparisons with previous Purple datasets are with the extended versions unless stated otherwise (see Chapter 2, The data and Annex A for details of the extended 2008 dataset used here). The extended dataset includes data that was unavailable in the previous year.

3.3 Scheme status

As in previous years, scheme status in this Purple Book is split between:

- **open schemes**, where new members can join the scheme and accrue benefits;
- **schemes closed to new members**, in which existing members continue to accrue benefits;
- **schemes closed to future accruals**, where existing members can no longer accrue new years of service; and
- **schemes that are winding up**.

The following analysis does not cover schemes that are wound up since they no longer have members, assets or liabilities.

As noted in previous editions of the Purple Book, significant differences between pure DB schemes and hybrids mean that care should be taken when interpreting aggregate data on pensions. Many larger employers have adopted a strategy of migrating their pension provision towards defined contribution (DC) by opening a DC section in an existing DB scheme. Thus many hybrid schemes may accept new members but no longer provide the opportunity for such members (or indeed existing members) to accrue defined benefits.

In Purple 2006, 40 per cent of memberships were in the open category and 25 per cent were categorised as 'part open'. It was noted that the 'part open' category included a significant number of hybrids where the DB element was closed.

In Purple 2007, the 'part open' category was removed. The percentage of schemes classified as open increased in comparison with Purple 2006. Many hybrid schemes which had previously identified themselves as 'part open' now identified themselves as open.

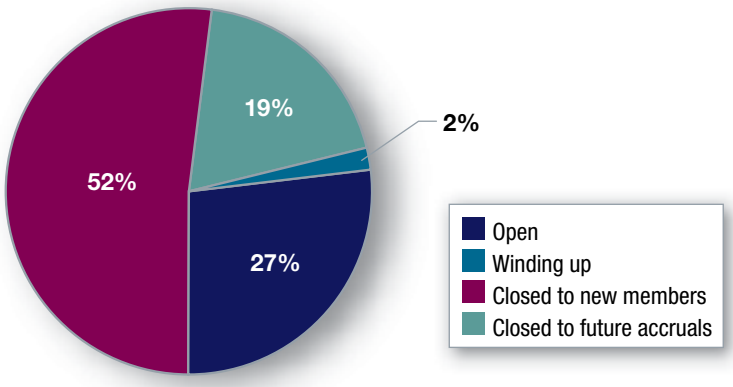
In Purple 2008, and in this year's edition, we have analysed the largest schemes (by membership) in the hybrid category separately so as to adjust the information provided in the scheme return and remove potential misrepresentation caused by hybrid schemes with closed DB sections declaring their status as open. A review of the 100 largest open hybrid schemes (comprising 63 per cent of the total membership of open hybrids in the data) shows that 77 were closed to DB membership or to future accruals. This comprises 63 per cent of the membership of the top 100 open hybrid schemes and 39 per cent of the 2009 total un-amended open hybrid membership of 4,541,087.

In the following analysis and in comparisons with 2008 and 2007 we have amended the status where necessary for schemes in the top 100 open hybrids (by membership) and present all figures accordingly. We have not extrapolated the changes to all hybrids, since smaller scheme behaviours would not necessarily resemble those of larger schemes. In some instances figures are presented with hybrid schemes removed for comparison. Where this has occurred it is mentioned in the accompanying text.

Chart 3.1 shows the distribution of schemes by status as at 31 March 2009, including hybrid schemes.

Open schemes constitute 27 per cent of the Purple 2009 sample.

Chart 3.1 | Distribution of schemes by status



Source: PPF/The Pensions Regulator

Table 3.1 shows the percentage of schemes in each Purple year by scheme status, including hybrid schemes. The steady decline in the proportion of open schemes has continued between March 2008 and March 2009.

Table 3.1 | Distribution of schemes by status (including hybrid schemes)*

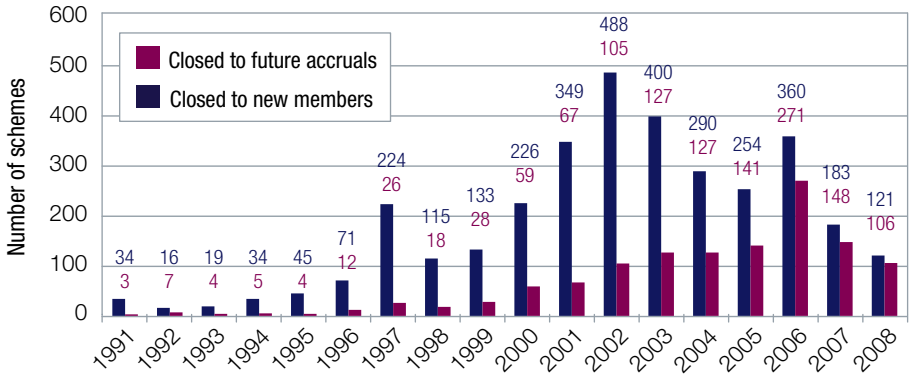
Percentage of schemes	Purple 2006	Purple 2007	Purple 2008	Purple 2009
Open (plus part open in 2006)	41%	36%	31%	27%
Closed to new members	44%	45%	49%	52%
Closed to future accruals	14%	16%	18%	19%
Winding up	1%	2%	2%	2%

Source: PPF/The Pensions Regulator

*Some columns in this and other tables in this Chapter do not sum to 100 per cent due to rounding.

Chart 3.2 shows the year in which schemes in the dataset closed to new members and future accrual.[3] Note that it is not the case that schemes always proceed in a stepwise fashion from 'Open' to 'Closed to new members' to 'Closed to future accruals' and then into 'Winding up'. Schemes may proceed from one status into any of the others.

Chart 3.2 | Distribution of schemes by status (including hybrid schemes)



Source: PPF/The Pensions Regulator

Table 3.2 below shows the distribution of schemes with hybrid schemes removed. A lower proportion of schemes are open to new members, indicating that hybrid schemes are, in general, more likely than pure DB schemes to still accept new entrants.

3 Chart 3.2 only shows the most recent status change. For instance, if a scheme became closed to new members in 2002 before closing to future accruals in 2006, only the 2006 status change is recorded.

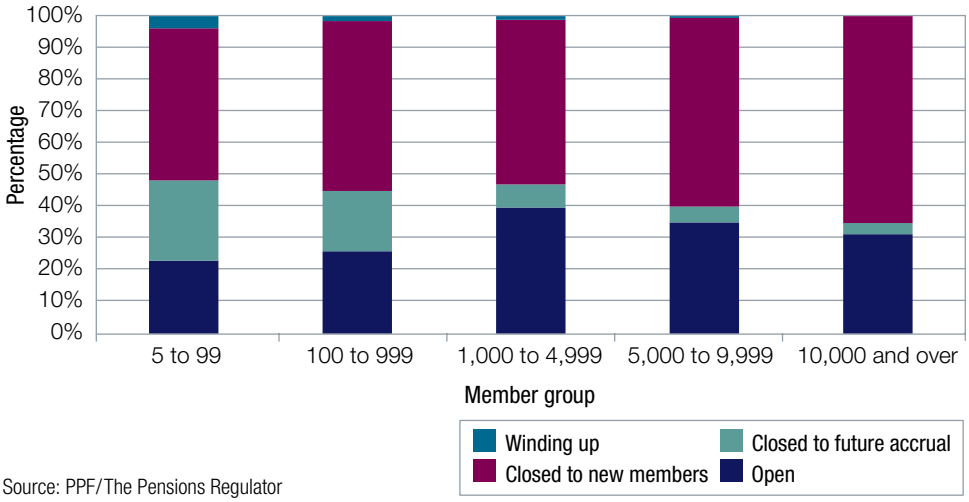
Table 3.2 | Distribution of schemes by status (excluding hybrid schemes)

Percentage of schemes	Purple 2006	Purple 2007	Purple 2008	Purple 2009
Open (plus part open in 2006)	35%	32%	26%	22%
Closed to new members	49%	50%	52%	55%
Closed to future accruals	15%	17%	19%	20%
Winding up	1%	1%	3%	3%

Source: PPF/The Pensions Regulator

Chart 3.3 indicates that larger schemes are more likely to be closed to new members. This is in common with previous Purple datasets. The 1,000 to 4,999 size band has the highest proportion of open schemes at 40 per cent.

Chart 3.3 | Scheme status by member group*



Source: PPF/The Pensions Regulator

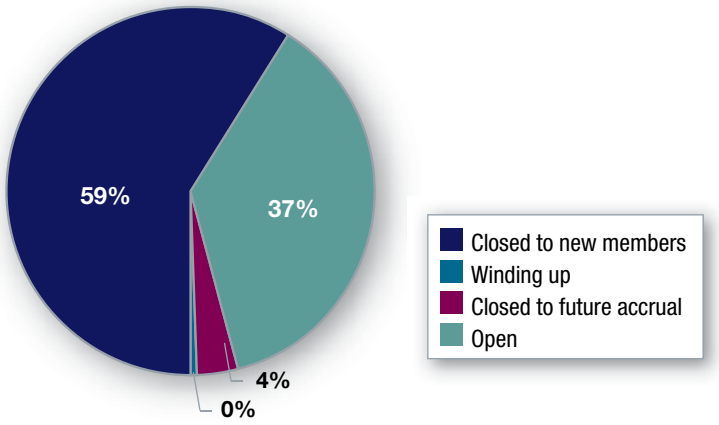
* A small number of schemes with fewer than five members are in the data set (85). These are mostly independently registered sections or schemes which appeared in previous Purple data sets.

3.4 Scheme status and scheme membership

Chart 3.4 shows the distribution of membership by scheme status. These figures show the statuses of schemes as at 31 March 2009 and do not take into account announced or actual closures occurring after that date. In addition, the schemes in the dataset are defined by being drawn from those schemes which are PPF-eligible – when comparing these results with similar data sources it is important to be aware of possible differences in the schemes included within the datasets.

Table 3.3 shows how the proportion of scheme memberships continues to fall. There is a seven percentage point decline in memberships of open schemes since Purple 2008, similar to that observed between Purple 2007 and Purple 2008. Comparison with figures from Purple 2006 is complicated by the presence of the 'part-open' category and its inclusion of hybrids with closed DB sections. However, the declining trend is clear and in line with similar surveys dealing with this subject.

Chart 3.4 | Percentage distribution of members by scheme status



Source: PPF/The Pensions Regulator

Thirty seven per cent of scheme members were members of open schemes in March 2009, down seven percentage points from March 2008.

Table 3.3 | Distribution of membership by scheme status (including hybrid schemes)

Percentage of schemes	Purple 2006	Purple 2007	Purple 2008	Purple 2009
Open (plus part open in 2006)	65%	50%	44%	37%
Closed to new members	33%	46%	52%	59%
Closed to future accruals	2%	3%	4%	4%
Winding up	0%	0%	0%	0%

Source: PPF/The Pensions Regulator

For comparison, Table 3.4 shows the movement in memberships by status for DB schemes only. The figures show little difference when hybrids are removed.

Table 3.4 | Distribution of membership by status (excluding hybrids)

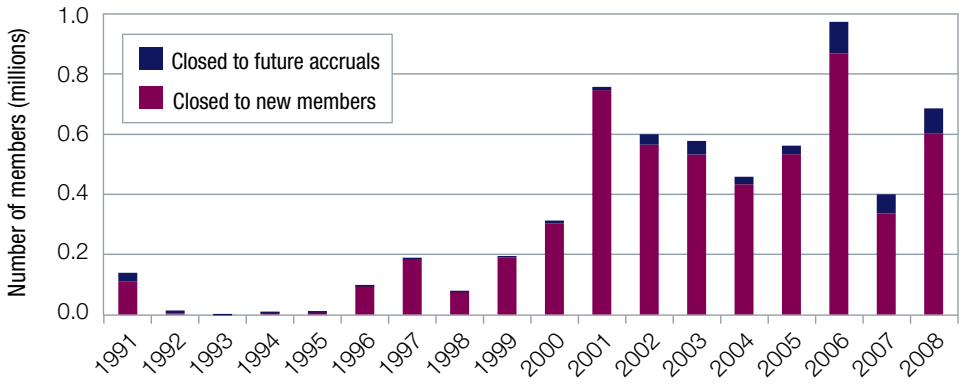
Percentage of schemes	Purple 2006	Purple 2007	Purple 2008	Purple 2009
Open (plus part open in 2006)	64%	56%	46%	38%
Closed to new members	34%	41%	49%	57%
Closed to future accruals	2%	3%	4%	5%
Winding up	0%	0%	0%	0%

Source: PPF/The Pensions Regulator

Chart 3.5 shows the number of members in schemes closing to new members and to future accruals, by year. 2008 saw an increase in the number of members in schemes closing to new members. Since the overall number of schemes closing to new members fell in 2008 (Chart 3.2), the size of these schemes is typically greater than those schemes which closed to new members in 2007.

Tracing the number of members entering closed status by year shows that the schemes closing to future accruals are typically smaller than those closing to new members. A comparison of Charts 3.5 and 3.2 shows that the proportion of members entering closed to future accruals is relatively small when compared with the proportion of schemes entering that status.

Chart 3.5 | Number of members in schemes closing to new members or future accruals.



Source: PPF/The Pensions Regulator

3.5 Scheme membership

The distribution of the 12.4 million total memberships by membership type and scheme status is given in Table 3.5.

Table 3.5 | Memberships by membership type and status as at 31 March 2009 (millions)

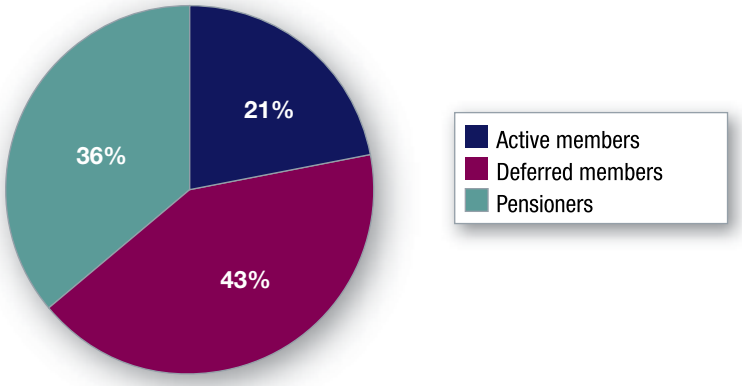
	Open schemes (millions)	Schemes closed to new members (millions)	Schemes closed to future accrual (millions)	Total
Active members	1.29	1.28	n/a	2.57
Deferred members	1.71	3.28	0.34	5.33
Pensioners	1.56	2.72	0.19	4.47
Total	**4.56**	**7.29**	**0.53**	**12.37**

Source: PPF/The Pensions Regulator

This year 21 per cent of members in the dataset are active, a slight fall from last year's figure of 22 per cent. Overall membership figures remain very much as before, with the proportions differing very little both globally and when broken down by size band.

Twenty one per cent of members are active.

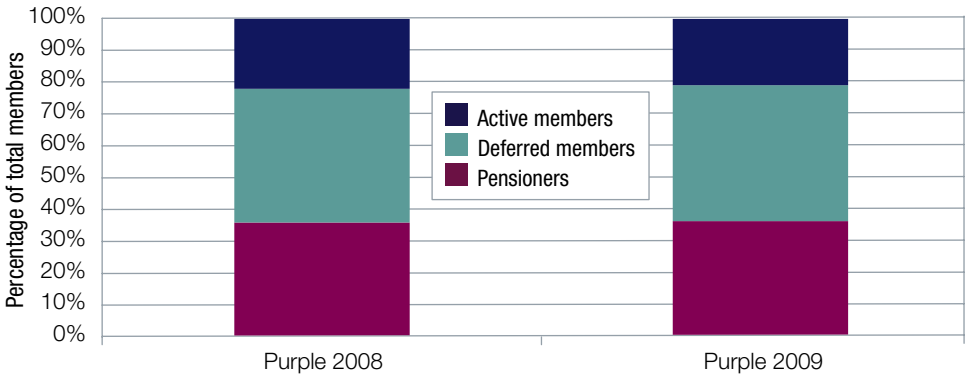
Chart 3.6 | Distribution of member types in Purple 2009



Source: PPF/The Pensions Regulator

Despite a smaller proportion of open schemes, the proportion of active members remains very similar to last year. A significant number of employees still accrue benefits in schemes that are either open or closed to new members.

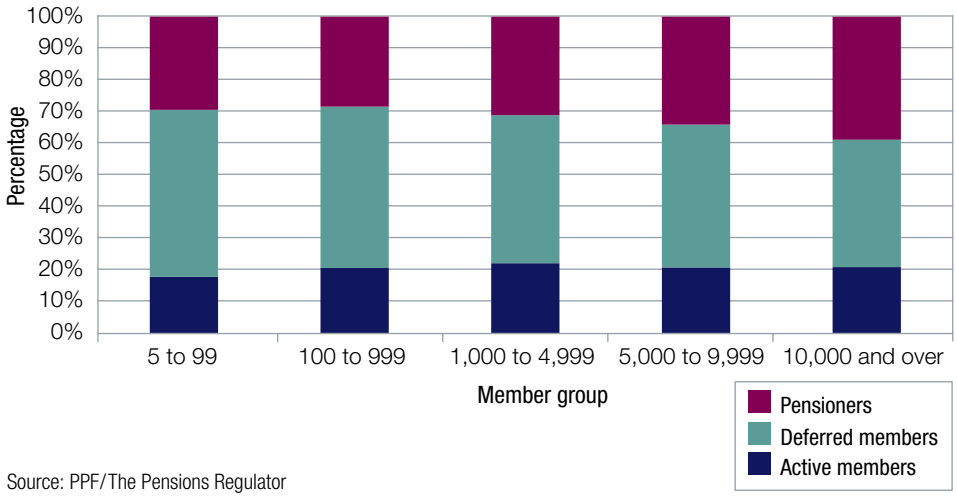
Chart 3.7 | Distribution of members by member types in Purple 2008 and Purple 2009



Source: PPF/The Pensions Regulator

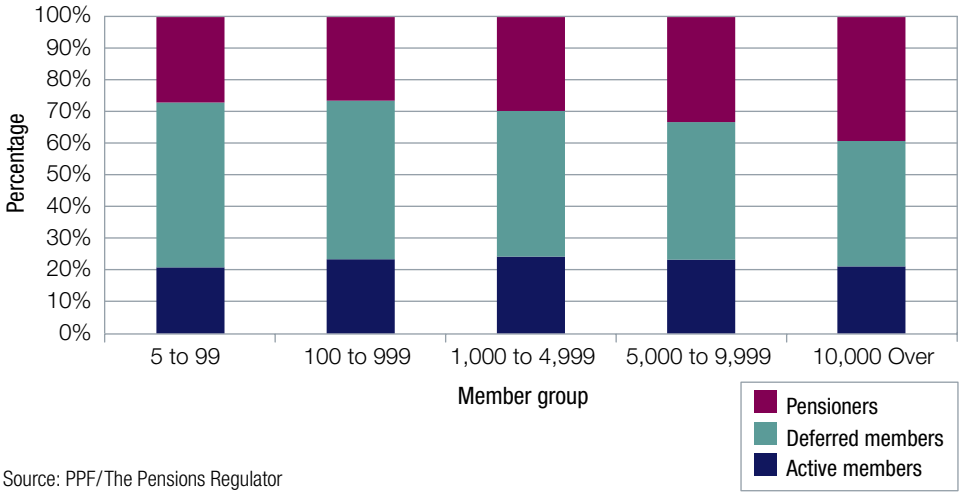
Chart 3.8 shows that pensioner members remain a larger proportion of total scheme membership among larger schemes.

Chart 3.8 | Distribution of member types by member group in the Purple 2009 dataset



Source: PPF/The Pensions Regulator

Chart 3.9 | Distribution of member types by member group in the Purple 2008 dataset

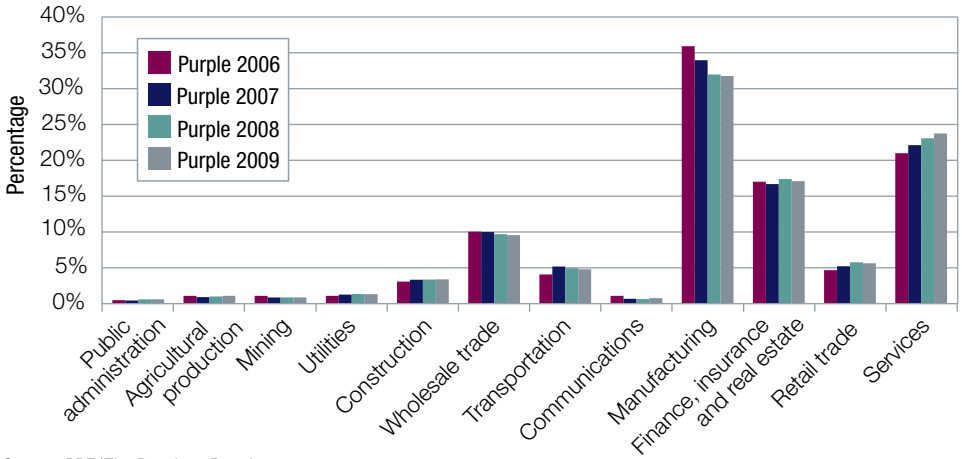


Source: PPF/The Pensions Regulator

3.6 Sample composition by industrial sector[4]

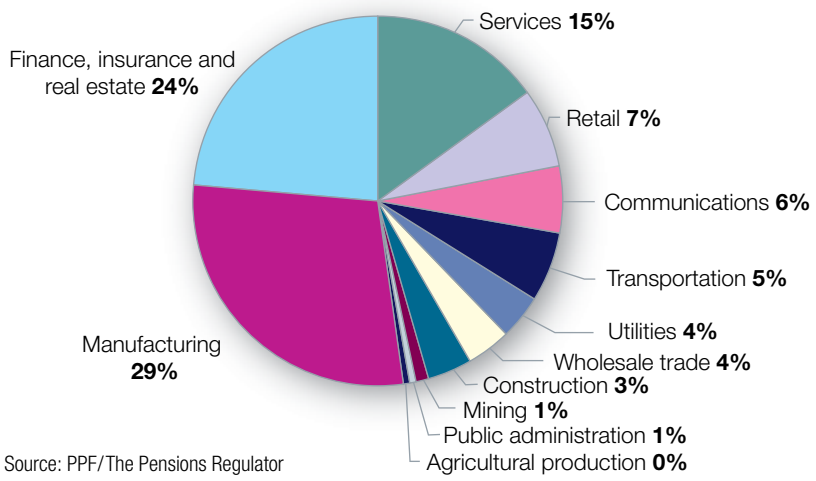
Chart 3.10 shows the distribution of schemes in the Purple 2006, 2007, 2008 and 2009 datasets by industry classification. The proportion of schemes in the Purple datasets classified as manufacturing sector has consistently declined whereas the proportion associated with the services sector has grown.

Chart 3.10 | Proportion of schemes by industry classification



Source: PPF/The Pensions Regulator

Chart 3.11 | s179 liabilities by industry in the Purple 2009 dataset

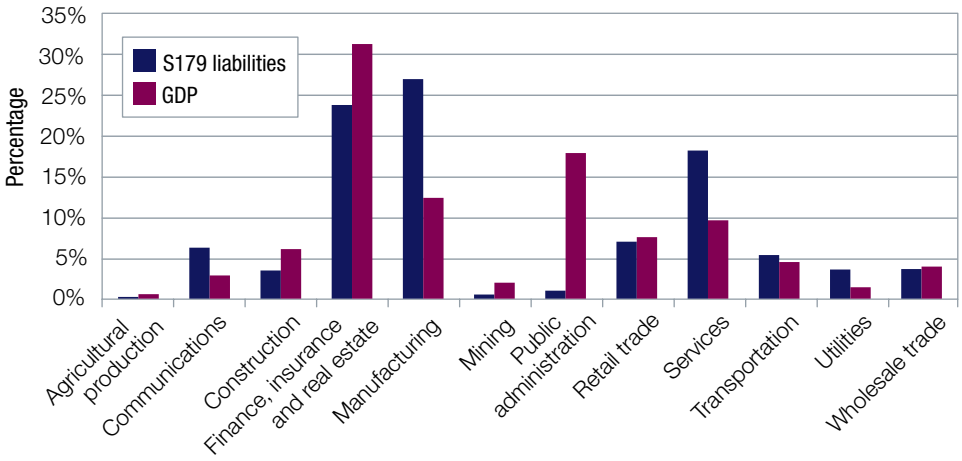


Source: PPF/The Pensions Regulator

4 D&B use the 1972 US Standard Industry Classification (SIC) codes for the purposes of industry classification, so for consistency these SIC codes have been used in analysing the PPF's and the regulator's data in this document. The codes are strictly speaking not comparable with those used in the UK national accounts.

Chart 3.12 compares s179 liabilities by industry with the weights of those industries in overall GDP. This gives an indication of the extent to which these sectors participate in DB pension provision. Manufacturing and services remain overrepresented relative to their share of GDP. Meanwhile, the shares of public administration and of finance, insurance and real estate in the total DB liabilities are lower than their respective shares in the economy.

Chart 3.12 | Comparison of the share of s179 liabilities in the Purple 2009 dataset and the share of GDP by industry



Source: ONS, PPF/The Pensions Regulator

4 Scheme funding

4.1 Summary

- The aggregate funding position of the Purple 2009 dataset on a section 179 (s179) basis has moved from a surplus of £12.3 billion in 2008 to a deficit of £200.6 billion as at 31 March 2009. The aggregate funding ratio on the same basis fell from 101.5 per cent to 79.5 per cent at 31 March 2009.
- The average full buy-out funding level has moved from 62.9 per cent in 2008 to 57.7 per cent in 2009.
- Funding calculated on the FRS17 basis has also fallen from an average funding level of 100.9 per cent in 2008 to 93.5 per cent in 2009.
- The end of March 2009, to which the funding information has been rolled forward, was subject to considerably adverse financial market conditions. The situation has improved since then.

4.2 Introduction

The main focus of this chapter is scheme funding on a s179 basis at 31 March 2009. The s179 basis is broadly speaking what would have to be paid to an insurance company for it to take on the payment of PPF levels of compensation. The information provided in scheme returns is rolled forward to allow a common comparison to be made. This is particularly important when markets are volatile, as asset price movements (combined with different scheme valuation dates) may otherwise obscure underlying funding trends.

As well as providing s179 funding estimates for 31 March 2009, funding estimates for the Purple 2009 dataset are also provided for the end of March in the three preceding years by rolling back the assets and liabilities of the 6,885 schemes.

Comparisons between the Purple 2009, 2008, 2007 and 2006 datasets can be misleading due to the different schemes these datasets include. Consequently, to compare funding positions, this chapter uses the Purple 2009 dataset as at 31 March 2009 and the Purple 2009 dataset 'rolled back' to 31 March 2008, 30 March 2007 and 31 March 2006.

It is important to note that a range of approximations are involved in the roll-forward process. As with the rest of this document, only schemes in the Purple 2009 dataset are included and so the aggregate assets and liabilities for all PPF-eligible schemes are believed to be slightly higher than described here (by about one per cent).

As was the case last year, as well as providing estimates of scheme funding on a s179 basis there are also approximate estimates of funding on three other bases for the end of March of each year:

- FRS17: the measure usually included in company accounts using AA corporate bond yields to discount liabilities;
- Full buy-out: uses a similar gilts-based discount rate as the s179 basis but takes full scheme benefits; and,
- An illustrative Technical Provisions (TP) measure where liabilities calculated under the scheme funding regime are discounted using a prudent discount rate. The discount rate can vary from scheme to scheme.

The focus on the end of March date used for this year's publication is the same as in previous Purple Books. However, it should be noted that funding for the end of March this year was particularly poor. Falls in equity markets and bond yields mean that funding at this time was significantly worse than at any other month-end point in the recent past. Subsequent rises in equity markets and bond yields have led to a significant improvement in funding. For more information see Chapter 5 Funding sensitivities.

4.3 Overall funding

The starting point for the following analysis is the set of s179 valuations submitted by schemes to the PPF (primarily through completion of a scheme return at the request of the regulator). Where these are at dates other than 31 March 2009, assets and liabilities have been adjusted, in line with the published PPF methodology, to allow for changes between the valuation date and 31 March 2009.

All s179 valuations performed on or after 31 March 2008 operate on the basis of the published 'A4' assumptions[5]. These figures form the basis for PPF levy calculations, subject to subsequent adjustments in defined circumstances. Liabilities on other bases have been estimated by applying the PPF transformation methodology, while making alternative assumptions to reflect our assessment of typical FRS17, buy-out and TP bases. This assessment is necessarily subjective and subject to a wide margin of error.

In the case of FRS17 bases, most companies do not have 31 March year-ends and there are few comprehensive surveys of practice available which extend outside listed companies. Calculations are based on the iBoxx yields in common use, while recognising that there is some debate over whether alternative approaches should be adopted which would have produced lower discount rates at 31 March 2009.

In the case of buy-out bases, the calculation is hypothetical, as only small numbers of buy-outs actually occur and the terms achieved are confidential and not necessarily obtainable for other schemes. The s179 basis, adjusted to be suitable for benefits which are not covered by the PPF, is used.

The TP figures in Table 4.1 should be taken as approximate estimates. They use figures in Table 3.1 of *Scheme Funding: An analysis of Recovery Plans*[6] for the weighted average of the ratio of TPs to liabilities on the then current s179 basis for recovery plans in Tranches 1 (1.076), 2 (1.194) and 3 (1.131) to derive the TP estimates for March 2006, 2007, and 2008 respectively in Table 4.1 below. The figure of 1.131 used for 2008 was also used for 2009.

Tables 4.1 to 4.4 show the results of the funding calculations for the years 2006 to 2009. The aggregate funding level on a s179 basis declined from 101.5 per cent at 31 March 2008 to 79.5 per cent at 31 March 2009. The aggregate s179 funding position has deteriorated from a surplus of £12.3 billion to a deficit of £200.6 billion. It should be borne in mind that the end of March 2009 was subject to considerably adverse financial market conditions and that the situation has improved since then.

5 For more information see: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/s179_assumptions_guidance_mar_2008.pdf.

6 For more information see: http://www.thepensionsregulator.gov.uk/pdf/scheme-funding-analysis-2009.pdf.

Funding on a buy-out basis has fallen from 62.9 per cent to 57.7 per cent, with the aggregate deficit increasing from £505.8 billion to £571.2 billion. However as the buy-out figures are based on the full scheme benefits rather the PPF level of compensation, more of the buy-out liabilities are inflation linked in some way. The buy-out figures are therefore more sensitive to real interest rates than nominal ones, and as the former changed by less than the latter between 2008 and 2009, the buy-out funding ratio changed by a lower percentage than the s179 funding ratio over this period.

Funding levels on the FRS17 basis have dropped from 100.9 per cent to 93.5 per cent with the aggregate balance deteriorating from a surplus of £8.1 billion to a deficit of £53.8 billion.

Funding levels on the estimated Technical Provisions basis shows a drop from 89.7 per cent to 70.3 per cent with the aggregate deficit going from £98.4 billion to £329.1 billion.

Table 4.1 | Key funding statistics as at 31 March 2009

	s179	FRS17	Full buy out	Technical provisions
Total number of schemes	6,885	6,885	6,885	6,885
Total assets (£ billions)	780.4	780.4	780.4	780.4
Total liabilities (£ billions)	981.0	834.2	1,351.6	1,109.5
Aggregate funding position (£ billions)	-200.6	-53.8	-571.2	-329.1
Total balance for schemes in deficit (£ billions)	-216.7	-93.2	-572.3	-
Total balance for schemes in surplus (£ billions)	16.0	39.3	1.1	-
Funding level	79.5%	93.5%	57.7%	70.3%

Source: PPF/The Pensions Regulator

Table 4.2 | Key funding statistics as at 31 March 2008

	s179	FRS17	Full buy out	Technical provisions
Total number of schemes	6,885	6,885	6,885	6,885
Total assets (£ billions)	857.0	857.0	857.0	857.0
Total liabilities (£ billions)	844.7	848.9	1,362.7	955.4
Aggregate funding position (£ billions)	12.3	8.1	-505.8	-98.4
Total balance for schemes in deficit (£ billions)	-57.6	-53.4	-507.3	-
Total balance for schemes in surplus (£ billions)	69.9	61.4	1.6	-
Funding level	101.5%	100.9%	62.9%	89.7%

Source: PPF/The Pensions Regulator

Table 4.3 | Key funding statistics as at 30 March 2007

	s179	FRS17	Full buy out	Technical provisions
Total number of schemes	6,885	6,885	6,885	6,885
Total assets (£ billions)	853.0	853.0	853.0	853.0
Total liabilities (£ billions)	765.6	969.2	1,226.1	914.1
Aggregate funding position (£ billions)	87.4	-116.2	-373.1	-61.1
Total balance for schemes in deficit (£ billions)	-25.9	-138.1	-376.8	-
Total balance for schemes in surplus (£ billions)	113.3	22.0	3.7	-
Funding level	111.4%	88.0%	69.6%	93.3%

Source: PPF/The Pensions Regulator

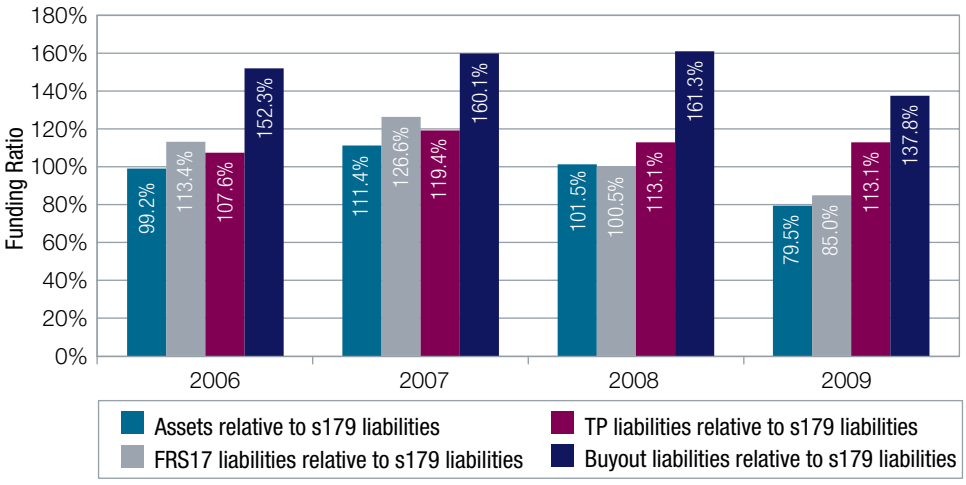
Table 4.4 | Key funding statistics as at 31 March 2006

	s179	FRS17	Full buy out	Technical provisions
Total number of schemes	6,885	6,885	6,885	6,885
Total assets (£ billions)	818.2	818.2	818.2	818.2
Total liabilities (£ billions)	824.8	935.3	1,256.0	887.5
Aggregate funding position (£ billions)	-6.6	-117.0	-437.8	-69.3
Total balance for schemes in deficit (£ billions)	-65.6	-137.8	-439.9	-
Total balance for schemes in surplus (£ billions)	59.0	20.7	2.1	-
Funding level	99.2%	87.5%	65.1%	92.2%

Source: PPF/The Pensions Regulator

Chart 4.1 shows the level of assets, FRS17 liabilities, TP liabilities and buy-out liabilities relative to s179 liabilities for the four Purple years.

Chart 4.1 | Assets, FRS17 liabilities, TP liabilities and buy-out liabilities relative to s179 liabilities, as at the end of March 2006, 2007, 2008 and 2009



Source: PPF/The Pensions Regulator

4.4 Analysis of funding by size of scheme membership

Table 4.5 shows that, for the Purple 2009 dataset, the smallest schemes are most likely to have the highest s179 funding, followed by the largest size category. Sixty three per cent of the liabilities are concentrated in the 227 schemes with more than 10,000 members. Funding levels are significantly lower than those recorded in last year's Purple Book.

Table 4.5 | s179 funding levels by scheme size as at 31 March 2009

Scheme size measured by number of members	Number of schemes in sample	Market value of assets (£ billion)	Total s179 liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level
5 to 99 members	2,439	9.2	10.7	-1.4	87%	84%
100 to 999 members	3,162	68.0	91.3	-23.4	74%	72%
1,000 to 4,999 members	877	115.3	155.4	-40.1	74%	72%
5,000 to 9,999 members	180	81.0	103.7	-22.7	78%	75%
Over 10,000 members	227	506.9	619.9	-113.0	82%	81%
Total	**6,885**	**780.4**	**981.0**	**-200.6**	**80%**	**77%**

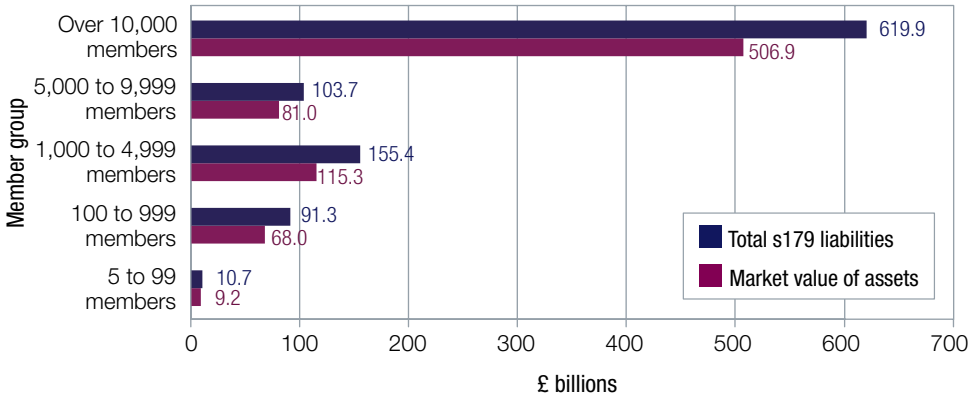
Source: PPF/The Pensions Regulator**

* A small number of schemes with fewer than 5 members are in the data set (85). These are mostly independently registered sections of schemes, or schemes which appeared in previous Purple data sets.

** Note that schemes with unusual funding arrangements were excluded from the simple averages in this table so as to avoid misleading distortions. 25 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

Sixty three per cent of the s179 liabilities are concentrated in the 227 schemes with more than 10,000 members.

Chart 4.2 | Total assets and liabilities on a s179 basis as at 31 March 2009



Source: PPF/The Pensions Regulator

Table 4.6 shows funding levels measured in full buy-out terms.

Table 4.6 | Estimated full buy-out levels by scheme size as at 31 March 2009

Scheme size measured by number of members	Number of schemes in sample	Market value of assets (£ billion)	Total s179 liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level
5 to 99 members	2,439	9.2	14.5	-5.3	64%	62%
100 to 999 members	3,162	68.0	124.1	-56.1	55%	53%
1,000 to 4,999 members	877	115.3	211.9	-96.6	54%	53%
5,000 to 9,999 members	180	81.0	142.2	-61.2	57%	55%
Over 10,000 members	227	506.9	858.8	-351.9	59%	59%
Total	6,885	780.4	1351.6	-571.2	58%	56%

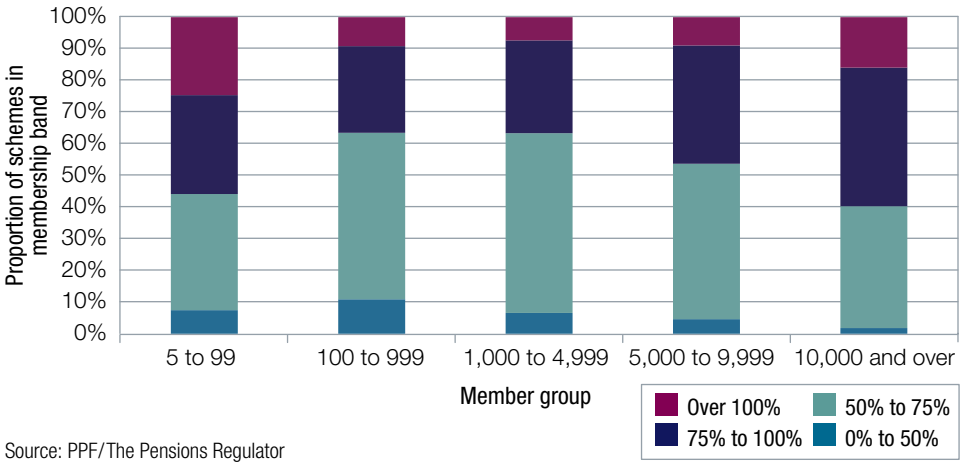
Source: PPF/The Pensions Regulator **

* A small number of schemes with fewer than 5 members are in the data set (85). These are mostly independently registered sections of schemes, or schemes which appeared in previous Purple data sets.

** Note that schemes with unusual funding arrangements were excluded from the simple averages in this table so as to avoid misleading distortions. 25 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

Chart 4.3 shows the distribution of s179 funding bands by scheme size as at 31 March 2009. The pattern is broadly similar to last year's and shows higher-funded schemes occur more frequently in the smallest and largest size bands.

Chart 4.3 | Distribution of s179 funding levels by size of scheme membership as at 31 March 2009

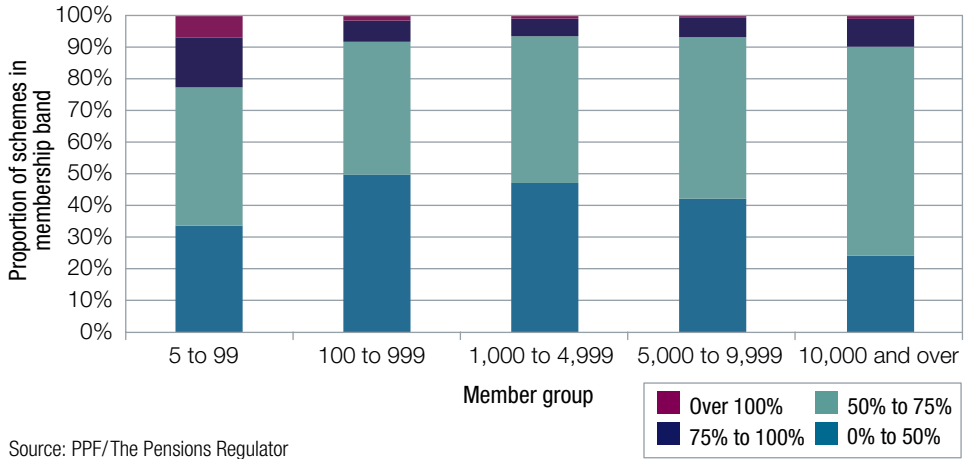


Source: PPF/The Pensions Regulator

Higher-funded schemes occur more frequently in the smallest and largest size bands.

Chart 4.4 shows the distribution of buy-out funding bands by scheme size. The largest proportion of poorly funded schemes is found in the 100 to 999 member group.

Chart 4.4 | Distribution of estimated buy-out levels by scheme size by members as at 31 March 2009



Source: PPF/The Pensions Regulator

4.5 Analysis of funding by size of scheme membership

Table 4.7 shows that more mature schemes show higher relative funding levels. This year the most mature group is the only one to show an average greater than 100 per cent.

Table 4.7 | Analysis of s179 funding levels by scheme maturity as at 31 March 2009

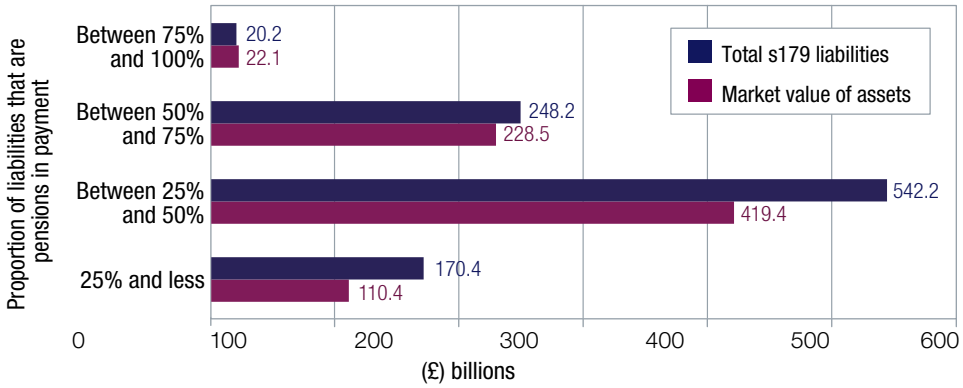
Proportion of s179 liabilities relating to pensioners	Schemes in sample	Market value of assets (£ billion)	Total s179 liabilities (£ billion)	Balance	Weighted average funding level	Simple average funding level
25% and less	2,986	110.4	170.4	-60.0	65%	69%
Between 25% and 50%	2,856	419.4	542.2	-122.8	77%	77%
Between 50% and 75%	863	228.5	248.2	-19.7	92%	94%
Between 75% and 100%	180	22.1	20.2	1.9	109%	115%
Total	**6,885**	**780.4**	**981.0**	**-200.6**	**80%**	**77%**

Source: PPF/The Pensions Regulator

* Note that schemes with unusual funding arrangements were excluded from the simple averages in this table so as to avoid misleading distortions. 25 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

Chart 4.5 shows the distribution of s179 assets and liabilities by scheme maturity. As in previous years the majority of assets and liabilities is found in the 25 per cent to 50 per cent of liabilities to current pensioner category.

Chart 4.5 | Distribution of s179 assets and liabilities by scheme maturity as at 31 March 2009



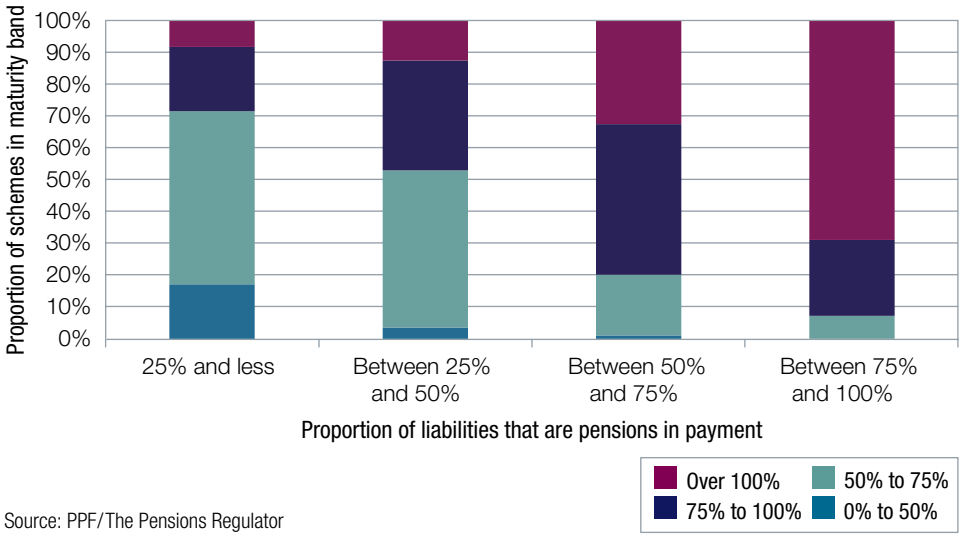
Source: PPF/The Pensions Regulator

As in previous years, the results presented above are likely to be affected by the fact that compensation for pensioners who were above normal retirement age at the date of assessment stands at 100 per cent of benefits accrued, while compensation for those below normal pension age at the date of assessment is 90 per cent of benefits accrued (subject to the compensation cap). Superficially, it might be expected that this would lead to lower levels of s179 funding for very mature schemes. However, it is likely that a greater proportion of pensioners' benefits will have been earned pre-1997. The funding positions of more mature schemes may benefit from the fact that the PPF does not provide indexation in payment on compensation for benefits accrued before 6 April 1997.

In addition, the basis used for assessing PPF liabilities, which is a proxy to a buy-out basis, is likely to show higher apparent funding levels for more mature schemes as a result of the differences between buy-out liabilities and funding targets for mature and immature schemes. Buy-out bases typically use lower discount rates than TPs, and this effect is much more significant in relation to younger members.

Chart 4.6 shows the distribution of funding level groups by scheme maturity, measured as the proportion of s179 liabilities that relate to pensions currently in payment. As in Purple 2008, more mature schemes tend to be better funded.

Chart 4.6 | Distribution of funding levels on a s179 basis by scheme maturity as at 31 March 2009



Source: PPF/The Pensions Regulator

4.6 Analysis of funding by scheme status

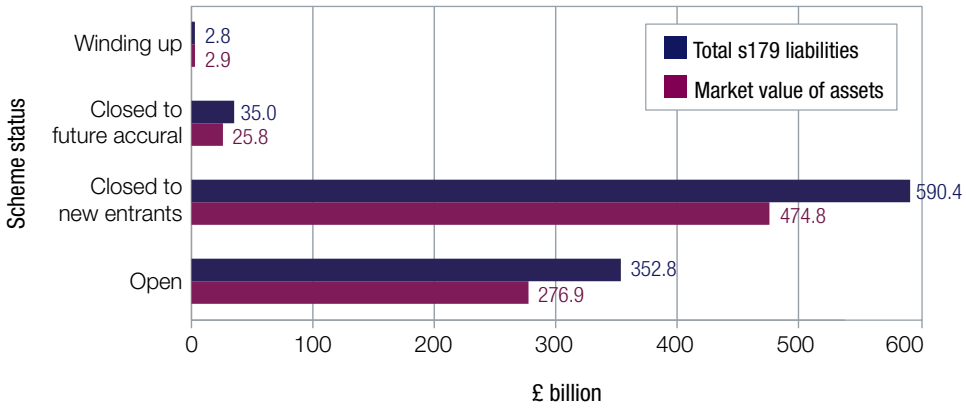
The pattern of funding levels by status differs from last year. Open schemes no longer have stronger funding than schemes closed to new members, as shown in Table 4.8.

Table 4.8 | Analysis of s179 funding levels by scheme status at 31 March 2009

Scheme status	Schemes in sample	Market value of assets (£ billion)	Total s179 liabilities (£ billion)	Balance	Weighted average funding level	Simple average funding level
Open	1,871	276.9	352.8	-75.9	78%	74%
Closed to new entrants	3,568	474.8	590.4	-115.6	80%	77%
Closed to future accrual	1,284	25.8	35.0	-9.2	74%	76%
Winding up	162	2.9	2.8	0.1	103%	100%
Total	**6,885**	**780.4**	**981.0**	**-200.6**	**80%**	**77%**

Source: PPF/The Pensions Regulator
Note that schemes with unusual funding arrangements were excluded from the simple averages in this table so as to avoid misleading distortions. 25 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

Chart 4.7 | Distribution of s179 assets and liabilities by scheme status as at 31 March 2009

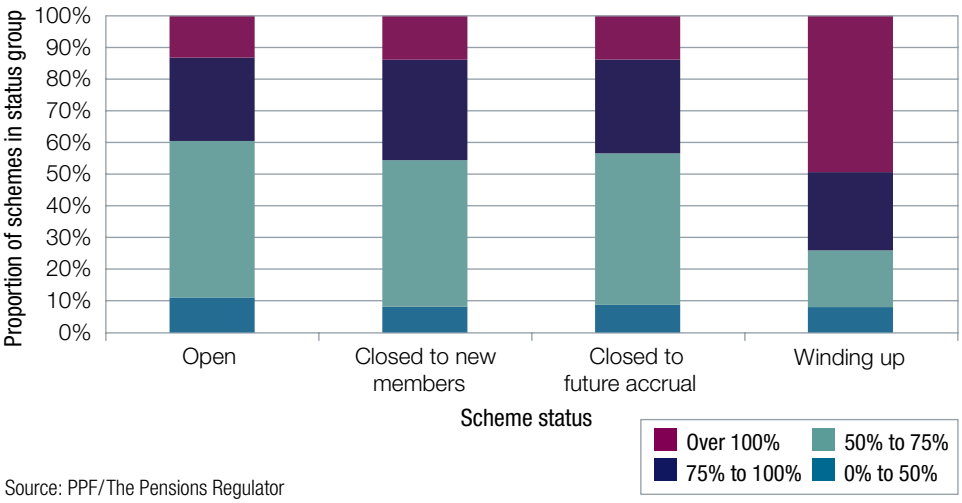


Source: PPF/The Pensions Regulator

Chart 4.8 shows the distribution of schemes by s179 funding levels within scheme status groups as at 31 March 2009.

In contrast with last year's Purple Book, the open category is shown here as encompassing the largest proportion of the zero per cent to 50 per cent funded schemes. The degree of underfunding is greater for all categories compared with last year.

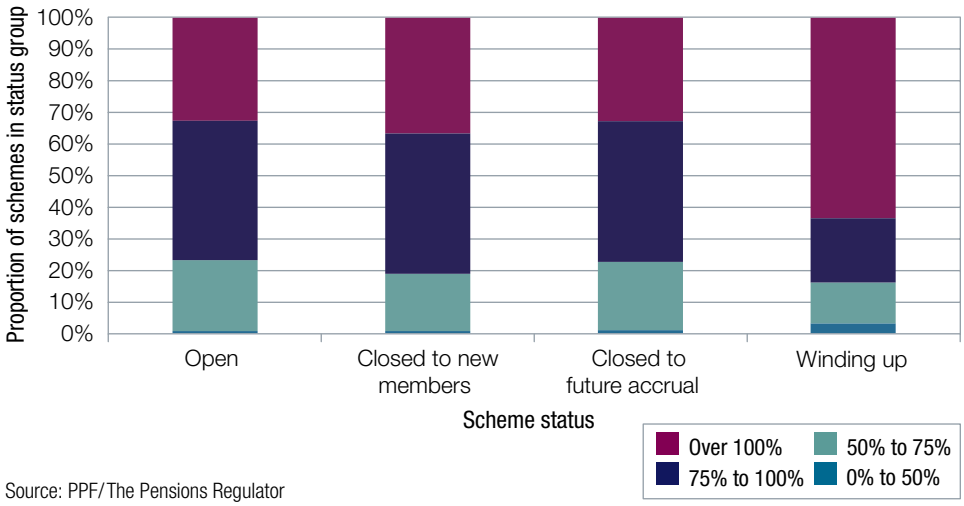
Chart 4.8 | Distribution of schemes by s179 funding levels within scheme status groups as at 31 March 2009*



Source: PPF/The Pensions Regulator

* Note that schemes with unusual arrangements were excluded from the simple averages in this chart so as to avoid misleading distortions. 25 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

Chart 4.9 | Distribution of schemes by s179 funding levels within scheme status groups as at 31 March 2008

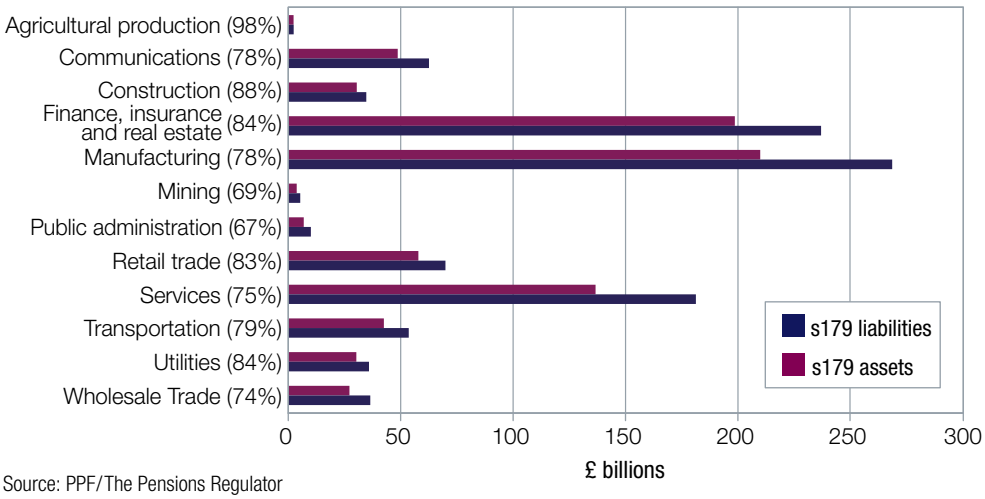


Source: PPF/The Pensions Regulator

4.7 Analysis of funding by employer industry

Chart 4.10 shows that assets and liabilities are greatest in the same three sectors - manufacturing; finance, insurance and real estate; and services, as in previous years.

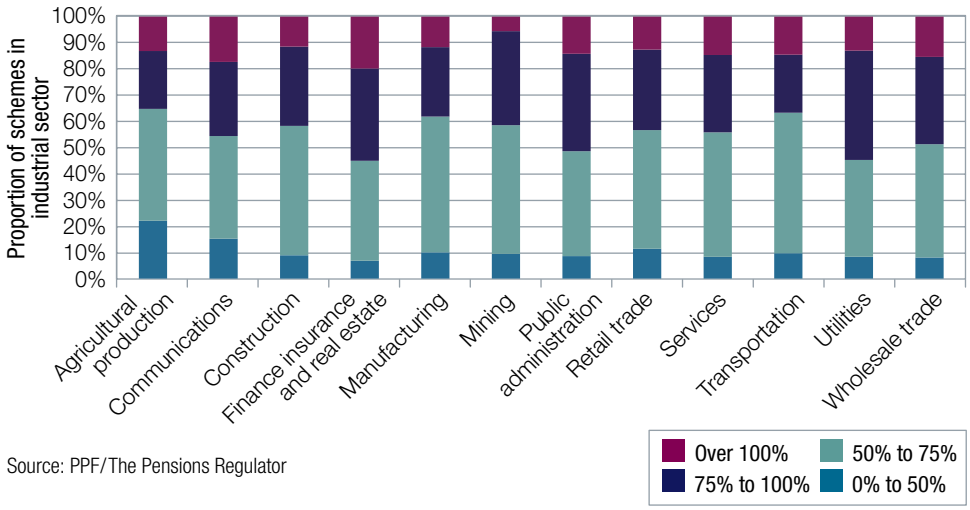
Chart 4.10 | s179 assets and liabilities by industry with overall funding level as at 31 March 2009



Source: PPF/The Pensions Regulator

Chart 4.11 shows the distribution of funding levels by sector. Agricultural production and communications have the largest proportions of schemes funded to less than 50 per cent.

Chart 4.11 | Distribution of s179 funding levels as at 31 March 2009 by industry



Source: PPF/The Pensions Regulator

5 Funding sensitivities

5.1 Summary

- All the funding sensitivities in this chapter are on a section 179 (s179) basis.
- Changes in estimated market conditions and financial and demographic assumptions since January 2003 have caused the monthly aggregate funding position of pension schemes measured on a s179 basis to vary by around £375 billion (with the greatest surplus in June 2007 at £173.4 billion and the greatest deficit in March 2009 at £200.6 billion).
- The estimated number of schemes in deficit on a s179 basis was at its lowest point in June 2007 at around 3,000 schemes (around 44 per cent of the dataset) and peaked in March 2009 at around 5,900 (around 85 per cent).
- Since March 2009, a recovery in equity markets and rising bond yields have resulted in an improvement in aggregate scheme funding of £77.6 billion by the end of October 2009. In addition, the change in actuarial assumptions which took effect at the end of October improved the estimated funding position by a further £70.5 billion[7]. These together meant that the aggregate deficit fell to £52.5 billion.
- An increase in longevity, such that the experienced mortality is now equivalent to that of an individual two years younger, would increase schemes' liabilities by around five per cent (£51 billion).
- If the assumed rate of inflation increases by 0.1 per cent, with nominal interest rates unchanged, then the s179 liabilities for schemes increase by approximately 0.9 per cent or £9 billion.
- A 0.1 per cent (10 basis points) reduction in gilt yields raises scheme liabilities by 2 per cent and raises scheme assets by 0.4 per cent. A 2.5 per cent rise in equity markets raises scheme assets by 1 per cent.
- Broadly, a 0.1 per cent rise in gilt yields is equivalent in its impact on scheme funding at 31 March 2009 to a 6.4 per cent rise in equity prices compared with 3.4 per cent at 31 March 2008 in Purple 2008.
- The increased sensitivity to a rise in gilt yields reflects the fact that, at the end of March 2009, the aggregate deficit was much larger together with the low absolute level of bond yields (so that a 10 basis points change is a bigger percentage change in bond yields).
- The sensitivities do not take into account any possible hedging of interest rates, inflation, equities or longevity.

7 For more details see the November PPF 7800 release: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_7800_November_09.pdf.

5.2 Introduction

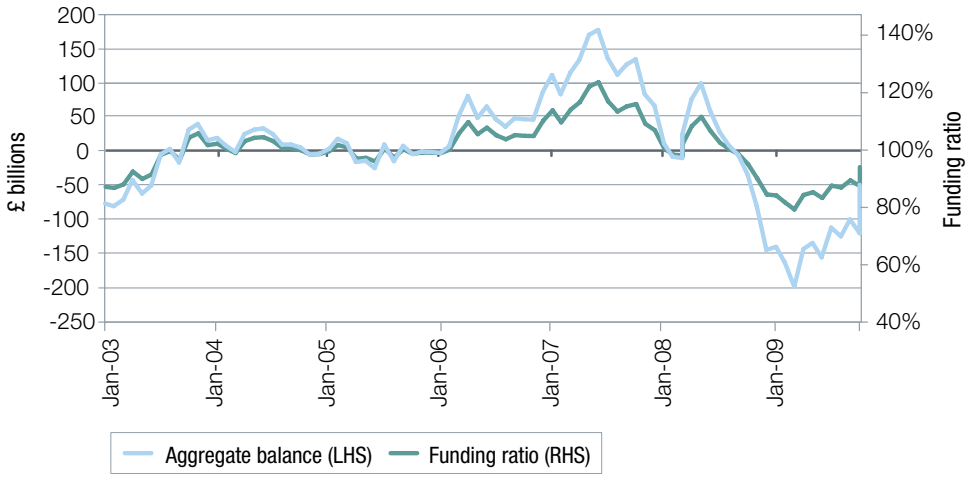
The analysis in Chapter 4, Scheme funding, provides a snapshot of funding at four points in time, the end of March in 2006, 2007, 2008 and 2009. In practice, funding levels are inherently volatile and are susceptible to changes in relation to the following:

- asset values, especially equity prices. These tend to be a more volatile asset class than bonds but demonstrate the potential to offer higher returns (based on very long-term empirical evidence);
- the discount rate used to value liabilities;
- the deficit reduction contributions made by employers;
- inflation;
- the assumptions relating to expected mortality; and
- the actuarial basis adopted[8].

This chapter describes this volatility and sets out various sensitivities[9].

5.3 Aggregate s179 funding[10]

Chart 5.1 | Estimated s179 aggregate balance (assets less liabilities) and funding ratio of pension schemes in the Purple 2009 dataset



Source: PPF/The Pensions Regulator

Funding levels are inherently volatile.

8 PPF changes the actuarial basis periodically in line with market pricing.

9 The focus is on monthly volatility. Purple 2008, page 54, also demonstrated high volatility on a daily basis.

10 Funding levels in this chapter are derived by comparing assets and liabilities in the PPF 7800 and Purple 2009 datasets at 31 March 2009. This ratio is then applied to assets and liabilities at all other dates.

Calculations based on the Purple 2009 dataset show how changes in market conditions since January 2003 have caused the aggregate funding position of pension schemes on a s179 basis to vary considerably, as shown in chart 5.1. The aggregate funding position varied by around £375 billion with the largest deficit to date at £200.6 billion[11] in March 2009 and the greatest surplus at £173.4 billion in June 2007. The funding ratio (total assets divided by total liabilities) was at its highest in June 2007 at 124.0 per cent and at its lowest in March 2009 at 79.6 per cent.

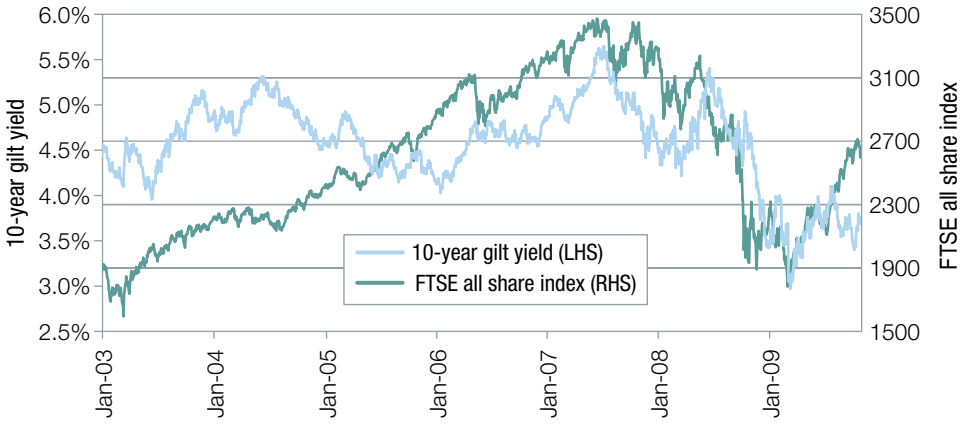
These figures are based on adjustments in the assets and liabilities of individual pension schemes, calculated at their respective valuation dates on an approximate basis, using changes in market indices for principal asset classes and the fixed interest and index-linked gilt yields used to value liabilities.

The approximation does not allow for benefit accrual or payments, actual scheme experience, changes in mortality assumptions, or any scheme hedging. This is consistent with the methodology adopted for the purposes of the PPF 7800 index which has been published by the PPF since July 2007[12].

Changes in market conditions resulted in £375 billion variation in s179 funding.

The s179 valuation estimate as at 31 March 2009 includes deficit reduction contribution (DRCs) certificates submitted to the PPF by 7 April 2009 corresponding to the s179 valuation results used in this estimate. These certificates show DRCs paid since the latest scheme valuation. Earlier DRCs will have been subsumed in the scheme asset figures as at the valuation date. The transformation methodology implicitly assumes that the DRCs are paid on the date to which the valuation result is transformed. Movements in scheme funding are then driven almost entirely by movements in financial markets. To this extent, schemes that have been making large special contributions in recent years (as suggested by the Office for National Statistics (ONS) data in Chapter 12, Risk reduction) will cause the estimated earlier funding figures shown in Chart 5.1 to give too favourable a picture of the 'real' funding position and underestimate the improvement in recent years (further analysis was provided in Purple 2008, page 55).

Chart 5.2 | Movements in stock markets and gilt yields



Source: Bloomberg

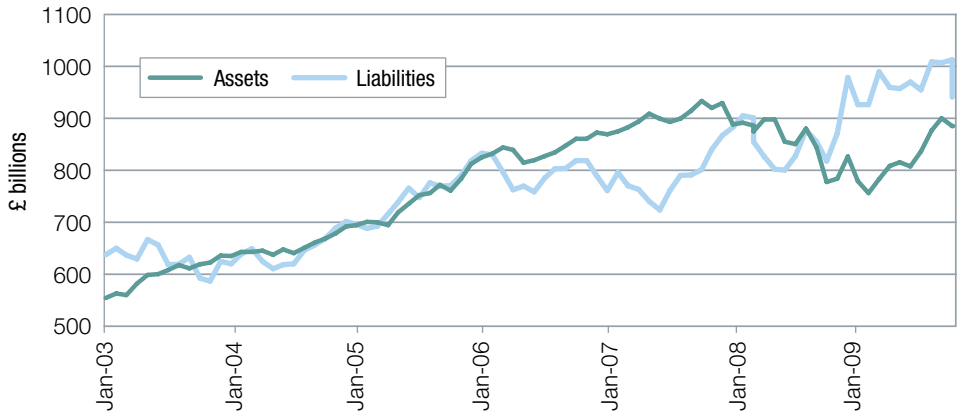
11 These figures are based on actuarial assumptions as at March 2008 for s179 valuations, version A4. More information on version A4 actuarial assumptions is available at: http://www.pensionprotectionfund.org.uk/TechnicalGuidance/Pages/GuidanceValidforPreviousPeriods.aspx.

12 This is available at: http://www.pensionprotectionfund.org.uk/Pages/PPF7800Index.aspx.

The market conditions behind the variation in s179 funding can be seen in Chart 5.2, while Chart 5.3 shows the movements in assets and s179 liabilities that underlie the figures in Chart 5.1. In summary:

- Falling gilt yields and equity markets resulted in a deficit of £83.8 billion in February 2003.
- The period from March 2003 to the end of 2003 saw equity markets and gilt yields rising, leading to the aggregate deficit becoming an aggregate surplus.
- From the end of December 2003 to December 2005 the aggregate funding level remained relatively constant (with a funding variation of around £58 billion) due to the continuing rise in equity levels being largely balanced by falling gilt yields.
- Between early 2006 and June 2007 the aggregate s179 funding position significantly improved as a result of rising gilt yields alongside rising equity markets, with the surplus peaking in June 2007 at £173.4 billion.
- The credit crunch resulted in falling equity markets and gilt yields so that by the end of March 2009 there was an aggregate deficit of £200.6 billion. At the end of March 2008, the actuarial assumptions for calculating s179 liabilities was changed to reflect the lower cost of buy-out resulting from greater competition (captured by higher discount rates in the calculation of liabilities).
- Since March 2009, a recovery in equity markets and rising bond yields have improved aggregate scheme funding by £77.6 billion by the end of October. In addition, another change in actuarial assumptions to reflect developments in the buy-out market took effect at the end of October and improved estimated funding by a further £70.5 billion. These together meant that the estimated aggregate deficit fell to £52.5 billion.

Chart 5.3 | Estimated movements in s179 assets and liabilities of schemes in the Purple 2009 dataset



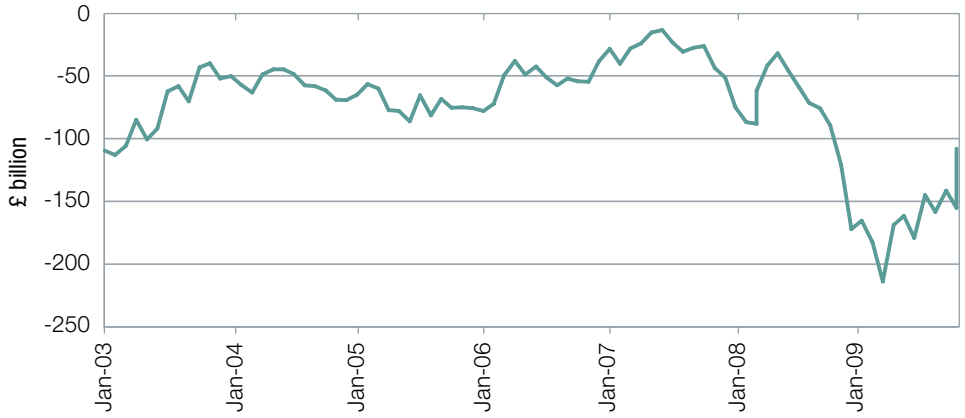
Source: PPF/The Pensions Regulator

5.4 Schemes in s179 deficit

The movements of s179 assets, liabilities and deficits for schemes in deficit are shown in Charts 5.4 and 5.5 since January 2003. Over this period, the smallest deficit of schemes in deficit was £13.2 billion in June 2007 and largest in March 2009 at £216.7 billion. In September 2008 the deficit started to increase sharply, peaking in March 2009. By the end of October 2009, the deficit had improved to £109.0 billion.

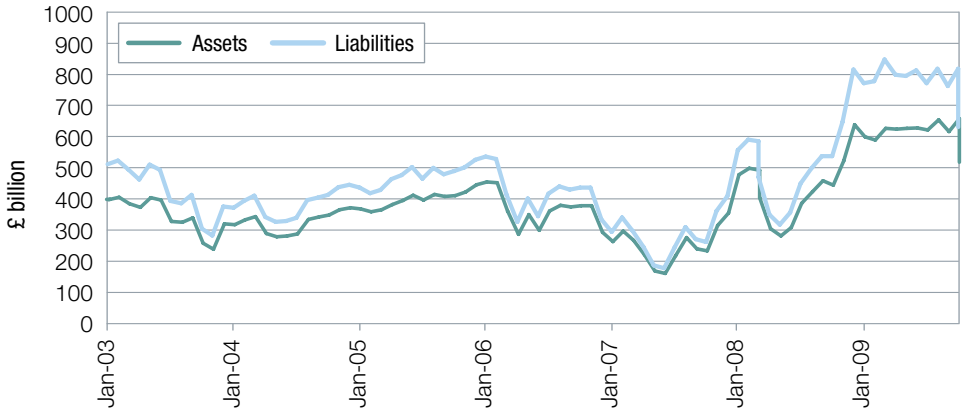
The difference between the largest and smallest aggregate s179 deficits (£203.5 billion) is narrower than in the case of all schemes (£375 billion) because financial market conditions can swing schemes from surplus to deficit, or deficit to surplus. For example, consider a scheme where movements in financial markets result in the funding position moving from a deficit of £30 million to a surplus of £10 million. The aggregate balance improves by £40 million whereas the aggregate deficit for all schemes in deficit only improves by £30 million because at the point the scheme moves into surplus it ceases to be a scheme in deficit. In March 2009, there were estimated to be 5,883 schemes in deficit (around 85 per cent of all schemes) and in June 2007 there were estimated to be 2,984 schemes in deficit (representing 43 per cent of schemes). It should be noted that in Chart 5.5 the changes in actuarial assumptions in March 2008 and October 2009 result in a reduction in the aggregate assets of schemes in deficit because improved estimated funding results in a number of schemes moving from deficit to surplus.

Chart 5.4 | Estimated aggregate s179 assets less aggregate s179 liabilities for schemes in deficit



Source: PPF/The Pensions Regulator

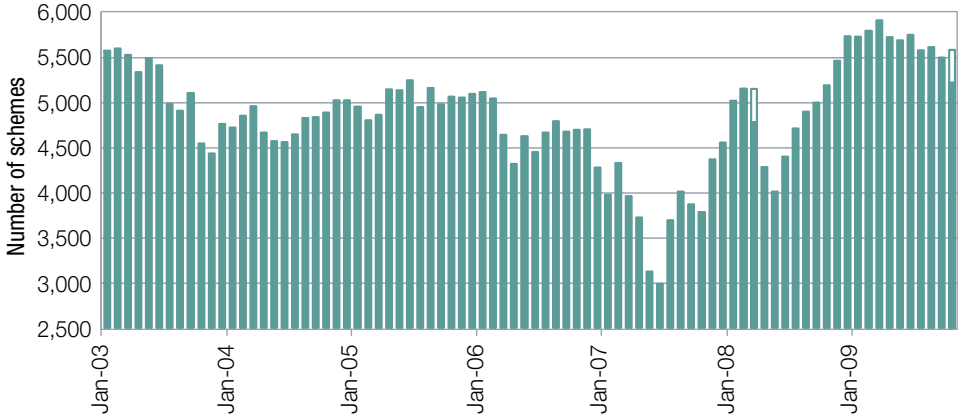
Chart 5.5 | Estimated aggregate s179 assets and s179 liabilities for schemes in deficit



Source: PPF/The Pensions Regulator

Changes in market conditions have resulted in the number of schemes in deficit varying by nearly 3,000.

Chart 5.6 | Estimated number of schemes in deficit each month in the Purple 2009 dataset



Source: PPF/The Pensions Regulator

5.5 Rules of thumb for the aggregate s179 funding position

Table 5.1 | Analysis of expected movement in s179 funding levels from a base aggregate deficit of £201 billion at 31 March 2009

s179 assets less s179 liabilities (£ billions)							
Movements in equity prices	Movements in gilt yields						
	-0.3%	-0.2%	-0.1%	0%	0.1%	0.2%	0.3%
7.5%	-235	-216	-197	-178	-161	-144	-127
5.0%	-243	-223	-204	-186	-168	-151	-134
2.5%	-250	-231	-212	-193	-175	-158	-142
0%	-258	-238	-219	-201	-183	-166	-149
-2.5%	-265	-245	-226	-208	-190	-173	-157
-5.0%	-272	-253	-234	-215	-198	-181	-164
-7.5%	-280	-260	-241	-223	-205	-188	-171

Source: PPF/The Pensions Regulator

Funding has become more sensitive to changes in gilt markets and less sensitive to changes in equity markets.

Table 5.1 relates the sensitivities of the aggregate deficit to instantaneous changes in gilt yields and equity prices at 31 March 2009. From this it can be seen that:

- A 0.1 per cent (10 basis points) reduction or increase in gilt yields[13] increases or reduces scheme funding by around £18 billion.
- A 2.5 per cent increase or decrease in equity markets will increase or reduce scheme funding by around £7 billion.
- So broadly, a 0.1 per cent (10 basis points) rise in gilt yields has a roughly equivalent effect on the aggregate funding position as a 6.4 per cent rise in equity markets.

13 The asset sensitivities reflect the duration of the FTSE UK Gilts All Stocks Index (9.7) and FTSE UK Gilts Index-Linked All Stocks Index (13.0) at 31 March 2009.

Compared with Purple 2008, funding has become more sensitive to changes in gilt yields and a little less sensitive to changes in equity markets. In Purple 2008, a 0.1 per cent rise in gilt yields was roughly equivalent to a 3.4 per cent rise in equity prices. The greater sensitivity to changes in gilt yields in Purple 2009 mainly reflects the fact that at the end of March 2009 the aggregate deficit was much larger together with the low absolute level of bond yields (so that a 10 basis point change is a bigger percentage change in bond yields).

When the changes are combined it can be seen that a 2.5 per cent increase in equity prices coupled with a 0.1 per cent increase in gilt yields as at 31 March 2009, would reduce the aggregate deficit (with all other things being equal) from £201 billion to £175 billion. The equivalent falls in equity prices and gilt yields would lead to a deficit of £226 billion.

Tables 5.2 and 5.3 below show the equivalent sensitivity of s179 assets and liabilities to instantaneous movements in gilt yields and equity indices rebased to 100.

Table 5.2 | Analysis of expected movement in s179 assets from a base of 100 at 31 March 2009

s179 assets relative to a base of 100							
Movements in equity prices	Movements in gilt yields						
	-0.3%	-0.2%	-0.1%	0%	0.1%	0.2%	0.3%
7.5%	104	104	103	103	102	102	102
5.0%	103	103	102	102	101	101	101
2.5%	102	102	101	101	101	100	100
0%	101	101	100*	100	100	99	99
-2.5%	100	100	99	99	99	98	98
-5.0%	99	99	99	98	98	97	97
-7.5%	98	98	98	97	97	96	96

Source: PPF/The Pensions Regulator

*100.4 to one decimal place

Table 5.3 | Analysis of expected movement in s179 liabilities from a base of 100 at 31 March 2009

s179 liabilities relative to a base of 100							
s179 liabilities to relative 31 March level (=100)	Movement in gilt yields						
	-0.3%	-0.2%	-0.1%	0%	0.1%	0.2%	0.3%
	107	104	102	100	98	96	94

Source: PPF/The Pensions Regulator

In terms of their effect on the aggregate balance a 0.1 percent rise in gilt yields is equivilant to a 6.4 per cent rise in equity markets.

5.6 Sensitivity analysis for schemes in deficit on a s179 basis

Table 5.4 | Analysis of expected movement in s179 funding levels from a base total deficit of £217 billion at 31 March 2009, excluding schemes in surplus

s179 Assets less liabilities (£ billion)							
Movements in equity prices	Gilt Yields						
	-0.3%	-0.2%	-0.1%	0%	0.1%	0.2%	0.3%
7.5%	-249	-231	-214	-198	-182	-167	-152
5.0%	-256	-238	-220	-204	-188	-173	-158
2.5%	-263	-244	-227	-210	-194	-179	-165
0%	-269	-251	-233	-217	-201	-185	-171
-2.5%	-276	-258	-240	-223	-207	-192	-177
-5.0%	-283	-265	-247	-230	-213	-198	-183
-7.5%	-290	-272	-253	-236	-220	-204	-190

Source: PPF/The Pensions Regulator

Table 5.4 shows how the underfunding position of schemes in deficit (on a s179 basis) of £217 billion varies with gilt yields and equity markets at 31 March 2009. It can be seen that if gilt yields rise by 0.3 per cent and equity markets rise by 7.5 per cent then the deficit of these schemes would fall to £152 billion. Conversely, if gilt yields fell by 0.3 per cent and equity markets fell by 7.5 per cent the total deficit would rise to £290 billion.

5.7 Benefit and inflation effects

If the assumed rate of inflation increases by 0.1 per cent then the s179 liabilities for schemes in the Purple 2009 dataset increase by approximately 0.9 per cent or £9.0 billion. A year ago, the same rise in assumed inflation resulted in a 1.5 per cent increase in liabilities. This calculation assumes that nominal yields are unchanged so that real yields reduce as a result of the increase in inflation. Conversely, if the assumed rate of inflation decreases by 0.1 per cent, then s179 liabilities would fall by approximately £8.8 billion or 0.9 per cent. If it is assumed that real yields are constant so that nominal yields fall as inflation declines, then liabilities increase by around 1.3 per cent (£12.5 billion), compared with 0.7 per cent last year. The lower sensitivity to a change in real yields this year, and higher sensitivity to changes in nominal yields, is because there is a smaller proportion of non-pensioner liabilities in the dataset this year (58 per cent compared with 65 per cent). Non-pensioner liabilities have a greater sensitivity to changes in inflation due to the revaluation the benefits receive during deferment.

Table 5.5 | Analysis of expected movement in s179 liabilities from changes in the rate of inflation at 31 March 2009 (base = £981.0 billion)

s179 liabilities (£ billions)				
	Change in nominal yields		Change in real yields	
	-0.1%	0.1%	-0.1%	0.1%
£ billions	993.5	968.8	990.0	972.2
Percentage change	1.3%	-1.2%	0.9%	-0.9%

PPF/The Pensions Regulator

5.10 Impact of changes in expected mortality

The future expected mortality experience of scheme members is one of the key assumptions required to place a value on a scheme's liabilities. An increase in longevity such that experienced mortality is now equivalent to that of an individual two years younger would cause total scheme liabilities to increase by £51.4 billion, or 5.2 per cent of liabilities. Meanwhile, a decrease in longevity of the same size would reduce scheme liabilities by £52.8 billion, or 5.4 per cent, (we do not have age information for each individual so we reduce the estimated average age for deferred members (48) and pensioners (63) by two years).

6 Insolvency Risk[14]

6.1 Summary

- The UK recession, which started in the second quarter of 2008, resulted in a steep rise in the level of corporate liquidations.
- The level of liquidations in the third quarter of 2009 was over 50 per cent higher than at the low point in the fourth quarter of 2007. In the 12 months ending 30 September 2009 approximately 0.9 per cent of companies went into liquidation compared with a low point of 0.6 per cent in 2007.
- Although company liquidations rose over the first two quarters of 2009, the rate of increase dropped considerably. In the third quarter, company liquidations fell by 4.7 per cent quarter-on-quarter compared with quarter-on-quarter increases of over 10 per cent during 2008.
- The rate of company liquidations to date has not been as severe as in other comparable periods of recession, such as the early 1990s.
- The estimated number of schemes entering into a PPF assessment period rose in the fourth quarter of 2008 and first quarter of 2009. Since then it has fallen, similar to the trend in company liquidations in the wider economy.
- The weighted average one-year ahead insolvency probability, derived from Dun & Bradstreet (D&B) failures scores, was 0.4 per cent as at March 2009. Comparisons with earlier years are difficult because of changes in D&B rating methodology.

6.2 Introduction

This chapter examines the insolvency risk of the sponsoring companies of DB schemes. Monitoring corporate health is an important task for both the PPF and the Pensions Regulator as part of the common mandate to protect members' benefits.

This chapter first outlines the various ways in which insolvency risk is gauged by the regulator and the PPF. D&B provides company failure scores which are mapped to a PPF assumed probability of insolvency. The PPF use the assumed probability of insolvency in the calculation of the risk-based levy. These failure-score-based probabilities are used to provide a snapshot of insolvency probabilities for our sample as at 31 March 2009.

14 This section examines insolvency risk among the Purple 2009 dataset as at 31 March 2009 based on a sample of 6,856 schemes.

6.3 Measuring insolvency risk

Both the PPF and the regulator use various measures of insolvency risk in assessment and modelling, including information from D&B, Moodys Investor Services, Standard and Poors (S&P), and FitchSolutions.

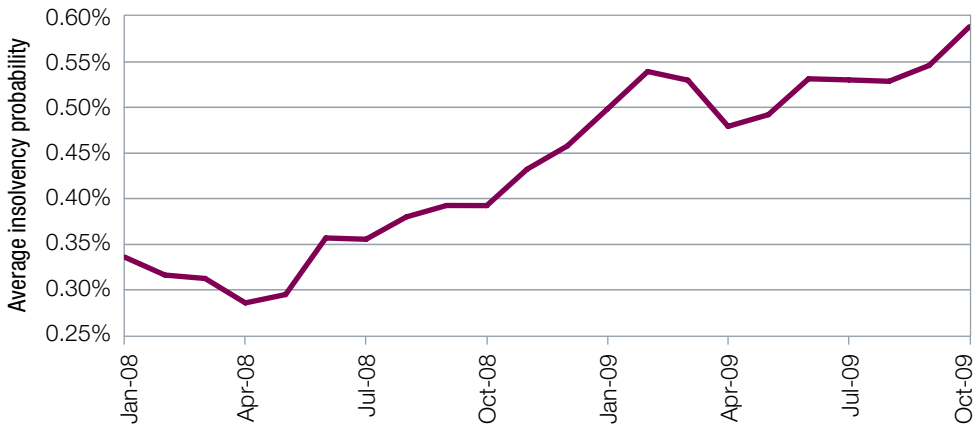
For levy purposes, the PPF uses insolvency probabilities supplied by D&B. The methodology D&B applied to calculating companies' failure scores has evolved over time, reflecting the complex nature of this task. The methodology of applying insolvency risk has also been adapted over time to address issues raised by schemes and employers. The PPF publication *The Consultation on the Future Development of the Pension Protection Levy (August 2007)*[15] covers some modifications, while a full explanation of D&B methodology and previous changes can be found in previous editions of the Purple Book.

Owing to the methodology changes applied by D&B, the comparison of insolvency probabilities over time is difficult. The changes in failure scores may reflect genuine movements in insolvency probability or may be due to methodology changes.

The PPF also uses alternative measures of insolvency risk to gauge the strength of sponsoring employers. One such measure is a composite insolvency probability derived from rating agencies and market data. This data includes the issuer ratings of Moodys Investor Services and FitchSolutions as well as market implied ratings derived from credit default swaps, equities, and bonds. D&B insolvency probabilities are still used for private companies and organisations for which ratings are not available.

Chart 6.1 shows the average insolvency probability calculated in this manner for the 500 largest exposures (where exposure is a function of underfunding and asset volatility) to the PPF until the end of October 2009. The average insolvency probability rose sharply over the 2008/09 year pointing to increased short-term risk posed to the PPF.

Chart 6.1 | Average insolvency probability of the PPF's 500 largest exposures



Source: PPF/The Pensions Regulator

15 For more details see: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/levy_consultation_aug_07.pdf

6.4 Insolvency risk and the PPF

In the consultation document *The 2011/12 Pension Protection Levy Consultation: Insolvency Risk (November 2009)*[16], the PPF set out proposed changes for measuring insolvency risk which reflect recent methodology changes implemented by D&B. In 2009, D&B reviewed its methodology for determining the failure scores of companies to account for the significant economic changes that have occurred since 2007. This included the updating of insolvency probabilities associated with each failure score.

The consultation document compared the PPF's actual experience of insolvency to the theoretical insolvency levels implied by D&B insolvency probabilities.

The rest of this section examines the insolvency risk of companies that sponsor PPF-eligible DB schemes, as indicated by D&B insolvency probabilities. It provides a breakdown of insolvency probability by scheme characteristics. Unless otherwise stated, all the calculated insolvency probabilities used in this section are unweighted averages.

The weighted average insolvency probability is 0.4 per cent in Purple 2009.

Insolvency probability

For the Purple 2009 dataset the weighted average insolvency probability, based on D&B failure scores and the PPF calibration of failure scores to insolvency probabilities, (weighted by section 179 liabilities) was 0.4 per cent, while the unweighted average was 0.9 per cent.

The weighted and unweighted average insolvency probabilities quoted above as at March 2009 differ from those in Purple 2008 (0.2 per cent and 0.7 per cent respectively). The weighted and unweighted average insolvency probabilities differ year on year for multiple reasons, making the straight comparison of average insolvency probabilities difficult. While the deterioration in the economic climate between March 2008 and March 2009 would be reason for an increase in the average insolvency probability, other differences can be caused by changes in the Purple sample used, and improved scheme and company data.

Insolvency probability and size

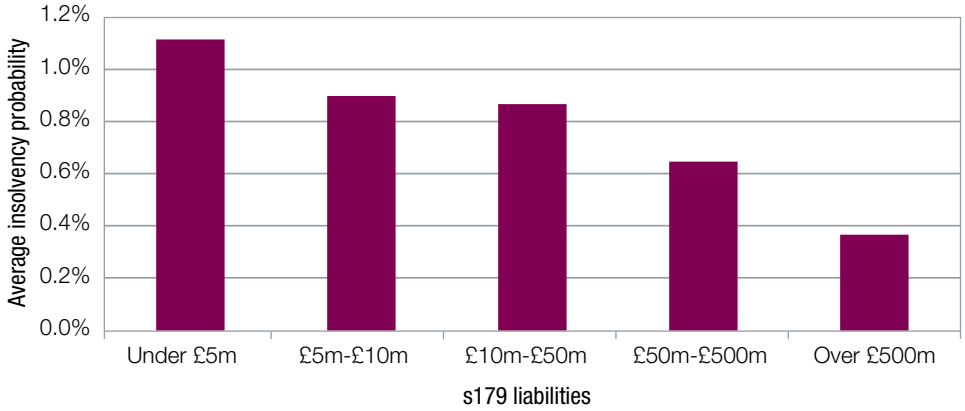
Generally the company sponsors of larger schemes (by membership and liabilities) are larger companies, which have lower insolvency probabilities than the company sponsors of smaller schemes (Charts 6.2 and 6.3).

16 For more details see: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/insolvency_consultation_Nov09.pdf.

Chart 6.2 | Average insolvency probability by scheme size as measured by number of members

Source: PPF/The Pensions Regulator

Chart 6.3 | Average insolvency probability by scheme size as measured by s179 liability level



Source: PPF/The Pensions Regulator

Company sponsors of larger schemes are generally larger companies, which tend to have lower insolvency probabilities.

In 2009, insolvency probabilities for sponsoring employers of schemes in deficit were higher than those for schemes in surplus (chart 6.4), reflecting the fact that larger companies tend to sponsor larger schemes which are better funded. This is a broadly similar picture to that seen in Purple 2008.

Chart 6.4 | Average insolvency probability by s179 liability level (schemes in deficit and schemes in surplus)*

Source: PPF/The Pensions Regulator

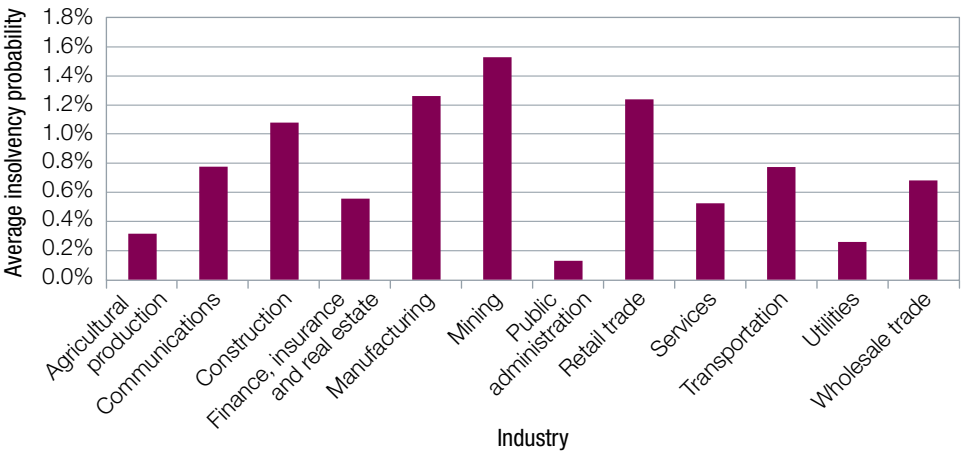
* This chart is based on a sample of 6,854 schemes as two outliers were removed.

Insolvency probability by industry

The 1972 US Standard Industry Classification (SIC) codes have been used to group employers by industry.[17] Chart 6.5 shows the average insolvency probability by industry for 2009. Mining, manufacturing, and retail trade are the three sectors with the highest average insolvency probabilities, while the public administration sector has the lowest. The large increase in average insolvency probability for the mining sector compared to Purple 2008 is not only due to a real increase in insolvency probability, but is also a result of the small number of schemes classified as operating in the mining sector.

17 D&B use the 1972 US Standard Industry Classification (SIC) codes for the purposes of industry classification, so these SIC codes have been used in this document for consistency.

Chart 6.5 | Average insolvency probability by industry



Source: PPF/Pension Regulator

6.5 UK growth and insolvencies

Corporate profitability fell over the year to June 2009 (Chart 6.6).[18] The annual net rate of return earned by public non-financial corporations (PNFCs) in the second quarter of 2009 was 10.8 per cent, compared with 12.2 per cent for the same period a year ago.[19] Looking at the breakdown by manufacturing and services sectors to the second quarter of 2009 the annual net rates of return were 6.7 and 15.6 per cent respectively, again lower than for the same period in 2008 when the rates of return were 8.3 and 16.0 per cent.[20]

The current fall in corporate profitability (see Chart 6.6) has, so far, been much less than in the early 1990s recession despite the fall in GDP in the current recession (nearly six per cent) being much greater than in the early 1990s (two per cent). In the early 1990s, profitability of non-financial companies fell from 12.5 per cent in the first quarter of 1989 to the trough of 8.2 per cent in the third quarter of 1992.

The resilience in corporate profitability witnessed to the second quarter of 2009 may be due to the increased flexibility of the services sector; when corporate profitability reached the lowest point in 1992, the net rate of return for the services sector was 10.6 per cent, much lower than the current level of 15.6 per cent.

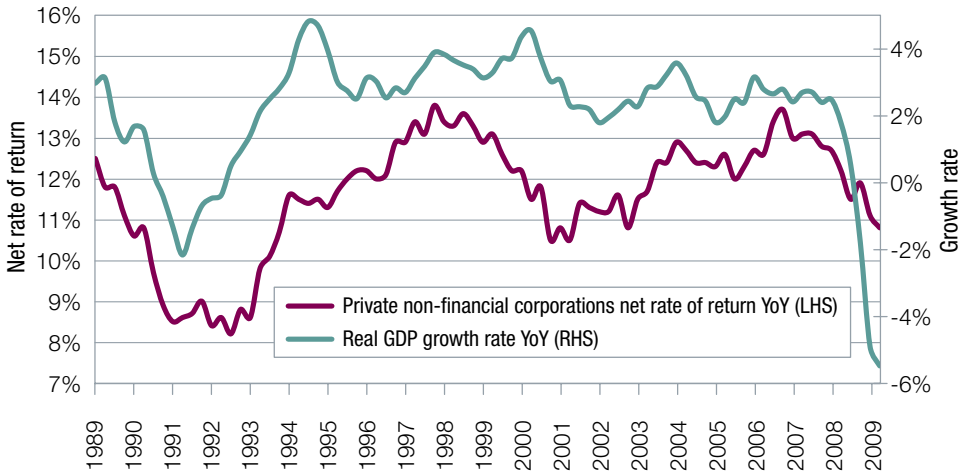
The fall in corporate profitability has, so far been much less than in the early 1990s recession despite a bigger drop in GDP.

18 Corporate profitability for the UK excluding UK continental shelf (UKCS) companies. UKCS companies are those involved in the exploration for, and production of, oil and natural gas from the UK continental shelf.

19 ONS defines the net rate of return as the return on capital employed within a firm. That is, the value of profits (allowing for depreciation) divided by the value of fixed assets (allowing for depreciation) and inventories.

20 Manufacturing and services sectors as defined by the ONS. These sector definitions do not relate to those used elsewhere in this chapter.

Chart 6.6 | UK GDP growth and corporate profitability



Source: Office for National Statistics

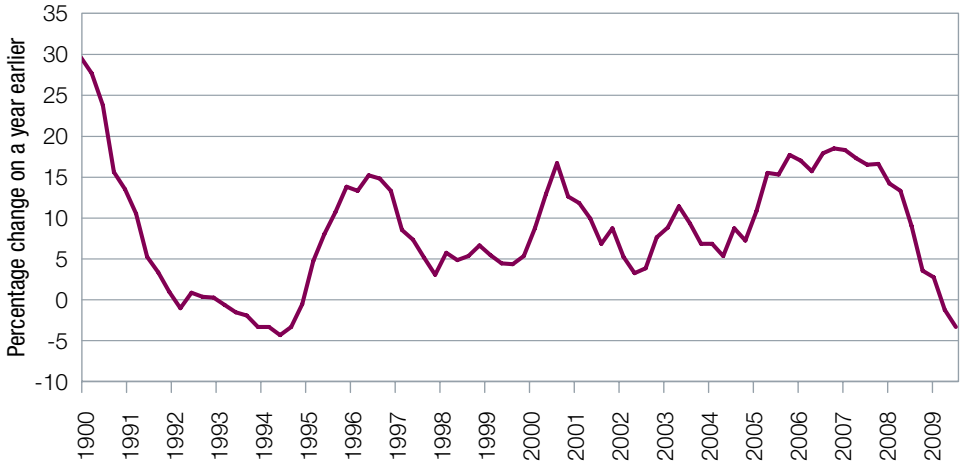
Average independent forecasts of GDP as compiled by HM Treasury are for modest growth of 1.3 per cent for 2010 and 2.0 per cent for 2011.[21] One of the key contributing factors to the UK's economic growth, and potentially the level of insolvencies, will be the improvement in credit markets and increasing bank lending.

Lending to PNFCs has fallen over 2009, as shown in Chart 6.7. For September 2009, lending was 3.4 per cent lower than in September 2008. The fall in lending reflects not only weaker demand by companies, but also falling supply as banks reduce lending to strengthen their balance sheets. The weaker demand for bank lending, particularly by larger companies, in part reflects the impact of the recession but also the result of more attractive lending options from equity and corporate debt markets being available. These alternative markets have become a more attractive source of raising capital as the yields on corporate bonds have fallen dramatically making the issuance of debt cheaper, and rebounding equity markets have made it easier to raise capital through shares.

Smaller companies, however, cannot usually access capital markets in the same way as larger companies. Consequently, the fall in bank lending affects smaller companies, a trend which is highlighted in the Bank of England's *Credit Conditions Survey* for the fourth quarter of 2009. The survey suggests small business demand for financing from banks has been stronger than demand from larger companies. In the survey, lenders reported that credit availability for small firms was broadly unchanged over the previous quarter, in contrast to increased availability reported for larger firms.

21 Forecast for the UK economy: a comparison of independent forecasts, December 2009, HM Treasury. The 2011 growth figure comes from the November release.

Chart 6.7 | Lending to private non-financial corporations

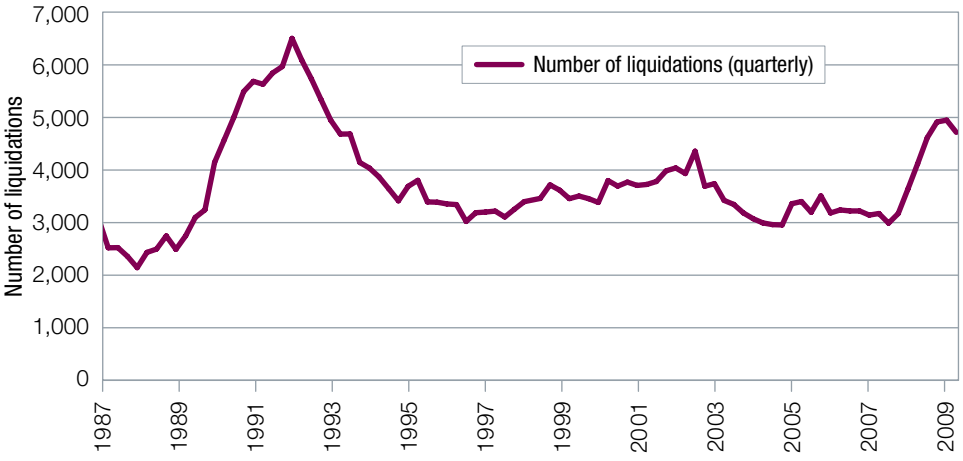


Source: Bank of England

The rise in company liquidations slowed in the first half of 2009, and was followed by a fall in the third quarter.

The level of company liquidations in the third quarter of 2009 was over 50 per cent higher than at the low-point in the fourth quarter of 2007. In the 12 months ending September 2009 approximately 0.9 per cent of companies went into liquidation compared with a low point of 0.6 per cent in 2007. The company liquidation rate is much lower than in the early 1990s and the rise has so far been much less, despite the severity of the recession. Furthermore, the pace of increase in company liquidations slowed over the first two quarters of 2009 and was followed by a fall in company liquidations in the third quarter.

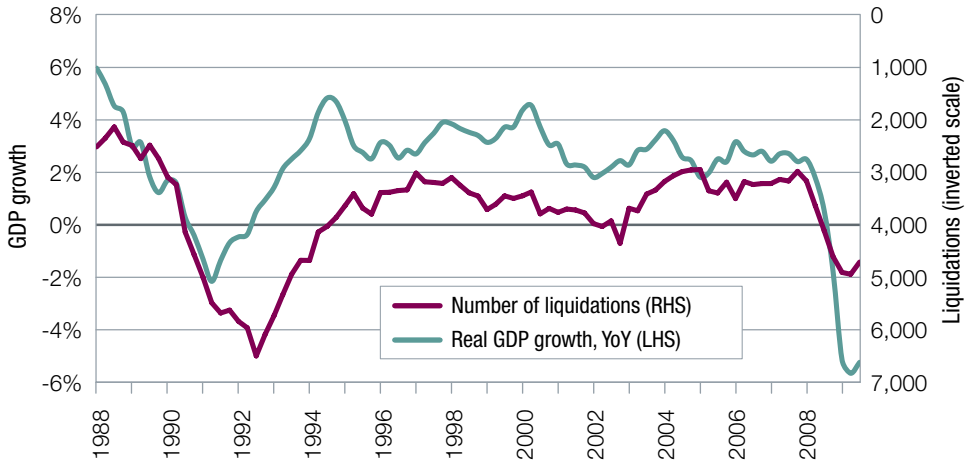
Chart 6.8 | UK corporate insolvencies



Source: Insolvency Service

Chart 6.9 shows that, historically, GDP could be thought of as a lead indicator for the level of corporate insolvencies. However, more recent experience suggests that this relationship may have become more coincidental. During the recession of the early 1990s, the trough in GDP was followed by the peak in the liquidation rate five quarters later. However, so far in this recession they have moved in tandem.

Chart 6.9 | UK corporate insolvencies and GDP



Source: Insolvency Service/Office for National Statistics

Implications for the PPF

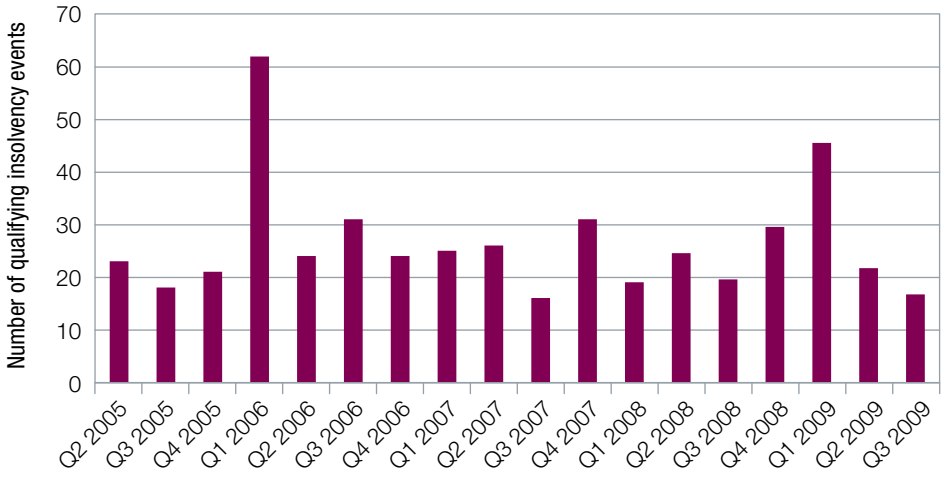
The universe of sponsoring employers for PPF-eligible DB schemes is only a small part of the total universe of UK companies (around 16,000 compared with approximately 2.3 million). The composition of the two universes differs as DB schemes are generally associated with larger, older companies, and there is a heavier weighting towards the manufacturing sector. Given these differences it may be anticipated that the level of insolvencies experienced in the wider economy will not necessarily reflect experience of the PPF universe of companies. However, recent estimated figures of the number of schemes entering the PPF assessment period show that the impact on the PPF has been similar to trends in the wider economy.

Chart 6.10 shows the number of schemes (or parts of schemes) entering into the PPF assessment period on a quarterly basis.[22] The number of schemes entering into assessment increased over the second half of 2008 and into the first quarter of 2009. However, in the second and third quarters of 2009, the estimated number of schemes entering into assessment fell. This is similar to the trend in insolvencies discussed above, with the rise in insolvencies slowing during 2009.[23]

The PPF is not only concerned with the number of claims expected against the PPF but also the size of those claims. During the 2008/09 financial year the value of new claims against the PPF rose to £1.3 billion compared with £318 million in 2007/08.[24] The increase reflects both a rise in the number and value of claims.

The estimated number of schemes entering assessment during 2009 has followed a similar trend to that of UK wide insolvencies.

Chart 6.10 | Number of schemes (or parts of schemes) entering PPF assessment



Source: PPF/The Pensions Regulator

22 The number of claims for the most recent quarters are estimates and subject to revision.

23 This data will differ from to that shown in Chart 10.1 in Chapter 10, as it is an estimate of the final number of schemes (or parts of schemes) entering into assessment, while the data in Chart 10.2 is based on the raw data received, and may not account for schemes which turn out not be eligible for PPF protection or may be rescued from the assessment process.

24 The figures for "claims" do not include schemes in surplus although they will enter assessment. For more information please refer to the PPF Annual Report & Accounts 2008/09 at http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/ARA_0809.pdf.

7 Asset allocation

7.1 Summary

- Equities and 'gilts and fixed interest' continue to dominate scheme asset allocation. Their joint share has, however, continued to decline from its high of 89.4 per cent in 2006 to 83.5 per cent in 2009.
- In 2009, the share of gilts and fixed interest increased to 37.1 per cent from 32.9 per cent in 2008, 29.6 per cent in 2007 and 28.3 per cent in 2006. Meanwhile, the equity share dropped to 46.4 per cent in 2009 from 53.6 per cent in 2008, 59.5 per cent in 2007 and 61.1 per cent in 2006.
- In 2009, the share of other investments increased to 6.0 per cent from 3.8 per cent in 2008, 2.5 per cent in 2007 and 3.1 per cent in 2006.
- As in the earlier Purple Books, more mature schemes tend to invest more heavily in gilts and fixed interest and less in equities.
- Better funded schemes tend to hold a lower percentage of assets in equities.
- There is no evidence of investment patterns differing by the level of estimated insolvency risk.
- There is still a bigger share of total scheme equity holdings in overseas equities (53.8 per cent) than in UK equities (44.2 per cent), on a weighted basis. In Purple 2008, overseas equities accounted for 51.6 per cent of total equities compared with 48.0 per cent in UK equities[25].
- In Purple 2008, total scheme holdings of gilts and fixed interest were spread fairly evenly between government (33.2 per cent), corporate (32.6 per cent) and index linked (33.9 per cent). This year, however, government and index-linked securities fell to 29.0 per cent and 32.6 per cent respectively and corporate bonds saw a large increase to 38.3 per cent.
- Looking at simple averages[26], the share of UK equities is considerably bigger (57.6 per cent) than that for overseas equities (41.7 per cent), although the gap has narrowed from Purple 2008. The share of government fixed interest securities is considerably higher (45.6 per cent) than the index linked average (17.1 per cent).
- In comparing simple averages with the weighted ones it is evident that smaller schemes have a greater slant within equities to UK equities and within bonds to conventional government bonds.
- Flow data from the Office for National Statistics (ONS) show a continuing disinvestment from equities and, more recently, disinvestment from bonds.

25 These do not sum to 100 per cent in 2009 as there is a small proportion of equities held in unquoted equities. In 2008 this does not sum to 100 per cent due to rounding.

26 Simple averages can be defined as the mean without weighting for scheme size.

7.2 Introduction

This chapter examines the asset allocation of PPF-eligible defined benefit (DB) schemes using scheme return data provided to the Pensions Regulator[27]. The latest scheme returns provide more detailed information than in 2006 and 2007. As in 2008, equities are split into UK and overseas while gilts and fixed interest assets are divided into government fixed interest, corporate fixed interest and index-linked bonds. This year, data is also available on hedge funds. As in previous years, the asset allocation figures for 2009 are estimates produced by applying the asset allocation supplied by schemes (without adjustment for market movements) to the estimated value of total assets at 31 March 2009.

This data is used to look at trends in asset allocation over the last four years. In addition, this chapter presents analysis of the impact of scheme size, maturity, insolvency probability and funding level on asset allocation. The results are generally similar to those in earlier Purple Books.

This chapter also uses data from the ONS on asset allocation of around 340 large self-administered pension funds[28]. This makes possible the analysis of longer-term trends in asset allocation, and the impact of investment flows as well as valuation effects on asset allocation.

Table 7.1 | Average asset allocation for all schemes in Purple 2006, Purple 2007, Purple 2008 and Purple 2009*

	Extended Purple 2006	Extended Purple 2007	Extended Purple 2008	Purple 2009
Equities	61.1%	59.5%	53.6%	46.4%
Gilts and fixed interest	28.3%	29.6%	32.9%	37.1%
Insurance policies	0.9%	0.8%	1.1%	1.4%
Cash and deposits	2.3%	2.3%	3.0%	3.9%
Property	4.3%	5.2%	5.6%	5.2%
Other Investments				
- 'Other'	3.1%	2.5%	3.8%	4.5%
- Hedge funds	N/A	N/A	N/A	1.5%

Source: PPF/The Pensions Regulator
*Some columns do not sum to 100 per cent due to rounding.

27 There can be a significant gap between the date of the scheme return and the date at which the asset allocation was taken. This means that the date at which asset allocation data is provided differs from scheme to scheme. One per cent of schemes have given their asset allocations at a date before 2005, three per cent at a date in 2005, seven per cent at a date in 2006, 31 per cent at a date in 2007, 57 per cent at a date in 2008 and one per cent at a date in the first quarter of 2009.

28 The data from the ONS MQ5 enquiry is based on a sample of around 340 pension funds. This is comprised of around 100 local authorities and 240 public and private corporations (the PPF database excludes local authorities and public corporations). The estimated total assets of the ONS population is £1,100 billion, which is somewhat larger than the estimate for the PPF database. All schemes with more than 20,000 members are automatically included and schemes with less than 20,000 members are randomly selected. The sample is made up of a variety of funds including 'superannuation and self-administered pension funds'. A self-administered pension fund is defined as an occupational pension scheme with units invested in one or more managed schemes or unit trusts; a superannuation pension fund is defined as an organisational pension programme created by a company for the benefit of its employees. The sample may also contain defined contribution schemes.

Table 7.2 | Asset allocation: simple averages*

	Simple averages			
	2006	2007	2008	2009
Equities	52.6%	53.5%	50.2%	46.6%
Gilts and fixed interest	22.6%	24.0%	26.5%	29.2%
Insurance policies	14.9%	13.7%	13.0%	12.4%
Cash and deposits	3.9%	3.7%	4.4%	5.6%
Property	2.1%	2.5%	2.9%	2.8%
Other Investments				
- 'Other'	3.6%	2.6%	2.9%	2.6%
- Hedge funds	N/A	N/A	N/A	0.7%

Source: PPF/The Pensions Regulator

* Some columns do not sum to 100 per cent due to rounding.

Table 7.1 shows that pension scheme assets are still concentrated in equities and gilts and fixed interest. Their joint share has, however, continued to decline from its high of 89.4 per cent in 2006 to 83.5 per cent in 2009. The share of other investments rose to 6.0 per cent from 3.8 per cent in 2008, with smaller increases for insurance policies and cash and deposits. Hedge funds made up nearly a quarter of all other investments and 1.5 per cent of total assets.

Equities comprise 46.4 per cent of all scheme assets, compared with 53.6 per cent in 2008, 59.5 per cent in 2007 and 61.1 per cent in 2006 while the share of gilts and fixed interest rose to 37.1 per cent from 32.9 per cent in 2008, 29.6 per cent in 2007 and 28.3 per cent in 2006. The fall in the equity share will have reflected both sharp falls in equity markets and decisions by schemes to reduce their equity holdings (as indicated by ONS flow data, see Chart 7.11).

Table 7.2 shows simple averages for asset allocation for the 6,885 schemes in the Purple 2009 sample and the extended datasets for earlier years. These will reflect to a better extent the asset allocation of the thousands of smaller schemes. Table 7.1 weights each scheme's asset allocation by the share of its assets in total assets while in Table 7.2 the schemes are equally weighted.

In simple average terms, the insurance policy proportion has fallen to 12.4 per cent in 2009 from 13.0 per cent in 2008, 13.7 per cent in 2007 and 14.9 per cent in 2006. The equity proportion also fell in 2009. Meanwhile, the gilts and fixed interest proportion has been rising steadily and in 2008 and 2009 the proportion of scheme assets invested in cash also rose.

The joint share of equities and gilts and fixed interest as a proportion of total scheme assets has continued to fall.

7.3 Equity and gilt and fixed interest asset splits

Table 7.3 | Equity and gilt and fixed interest splits

	Gilts and fixed interest						Equities			
	Government		Corporate		Index linked		UK		Overseas	
	2008	2009	2008	2009	2008	2009	2008	2009	2008	2009
Weighted average share	33.2%	29.0%	32.6%	38.3%	33.9%	32.6%	48.0%	44.2%	51.6%	53.8%
Average share	47.2%	45.6%	33.0%	37.3%	19.8%	17.1%	60.4%	57.6%	39.6%	41.7%

Source: PPF/The Pensions Regulator

* The breakdown of equities and gilts and fixed interest may not sum due to rounding.

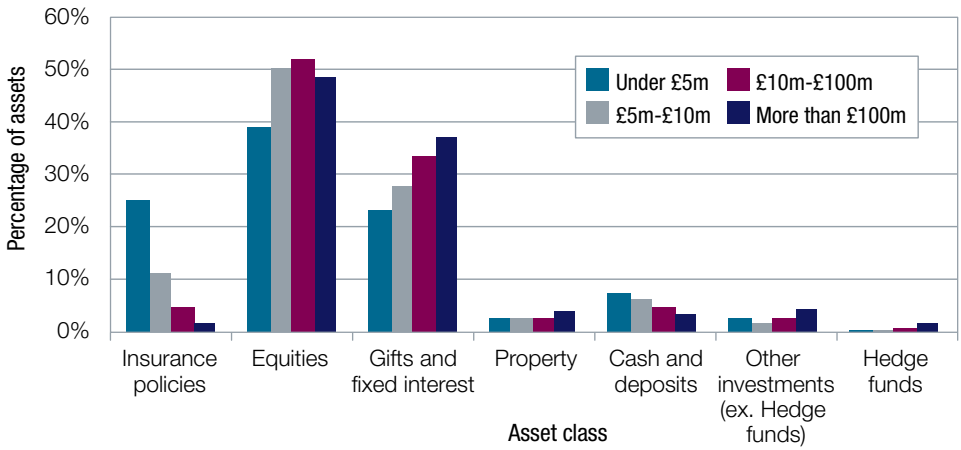
Table 7.3 shows the breakdown of equities and gilts and fixed interest in 2009 compared with 2008. On a weighted basis, 53.8 per cent of equities are held in overseas equities and 44.2 per cent are held in UK equities. The proportion of equities being held in overseas equities rose from 51.6 per cent in 2008. The composition of gilts and fixed interest has seen a large change since 2008. Corporate bonds now account for 38.3 per cent of total gilts and fixed interest (32.6 per cent in 2008), while the share of government fixed interest securities has fallen to 29.0 per cent, previously 33.2 per cent, and that for index-linked securities has fallen to 32.6 per cent from 33.9 per cent in 2008.

The picture is, however, very different looking at the simple average figures. UK equities account for around 60 per cent of total equities and government securities account for over 45 per cent of gilts and fixed interest. This indicates a very different asset allocation within equities, and within gilts and fixed interest, for large and small schemes.

The composition of gilts and fixed interest assets has seen a large change. Corporate bonds now account for 38.3 per cent of total gilts and fixed interest (32.6 per cent in 2008).

7.4 Scheme size

Chart 7.1 | Average s179 asset allocation of schemes by asset size



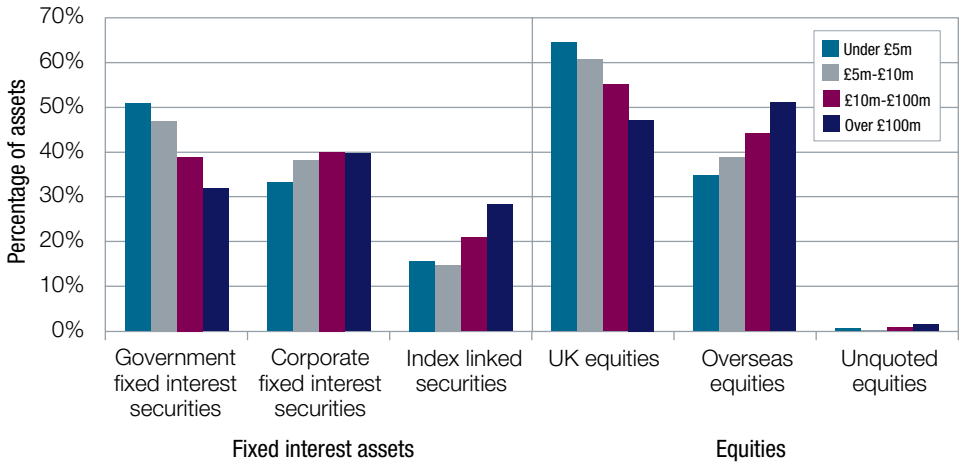
Source: PPF/The Pensions Regulator

Chart 7.1 shows the simple average asset allocation of schemes by scheme size as measured by the value of assets. The allocation of gilts and fixed interest increases with the size of scheme while the allocation of assets in insurance policies decreases (from 24.2 per cent in schemes with under £5 million in assets to 1.7 per cent in the largest asset category). Apart from the smallest schemes (those with less than £5 million in assets), the share of equities does not vary greatly with size, standing at around 50 per cent of assets.

Larger schemes tend to hold more in gilts and fixed interest than smaller schemes.

Chart 7.2 shows the weighted average breakdown of equities and gilts and fixed interest asset groups by asset size. Schemes with assets less than £5m have over half (51.0 per cent) of their investments in gilts and fixed interest in government securities and just 15.7 per cent in index-linked. This is in marked contrast to the asset allocation of the largest schemes, those with assets of over £100 million, where investment in gilts and fixed interest is split 31.9 per cent in government, 28.4 per cent in index-linked and 39.7 per cent in corporate bonds. This is similar to 2008 although, there has been a shift towards investment in corporate bonds in every asset size group. Equities also show a similar pattern to 2008 with larger schemes investing more in overseas equities. However, this year overseas equities as a share of total equities has increased in every size group.

Chart 7.2 | Simple average of equities and fixed interest assets split by asset size

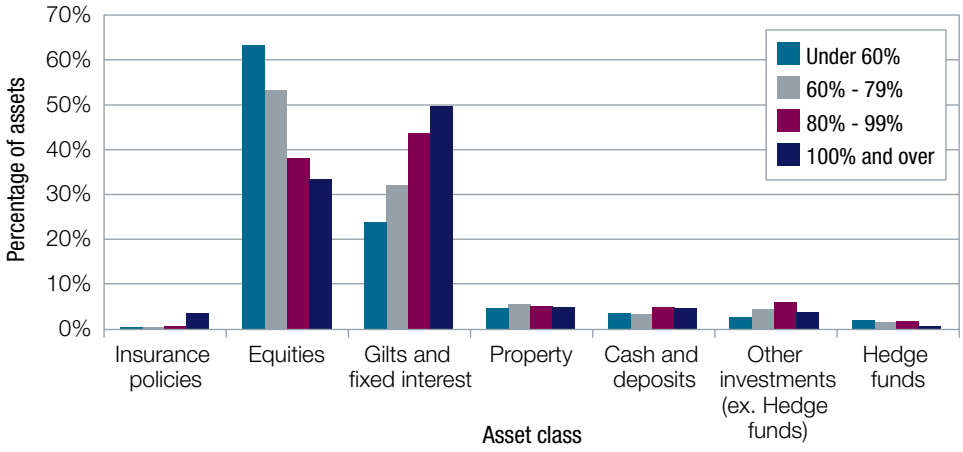


Source: PPF/The Pensions Regulator

Some of the schemes in the dataset are wholly insured. This is defined as having no investments other than qualifying insurance policies specified by regulations. There are 670 of these schemes in the dataset (mainly small schemes) and they have been excluded from the remainder of this chapter's analysis.

7.5 Funding level

Chart 7.3 | Weighted average asset allocation by s179 funding level



Source: PPF/The Pensions Regulator

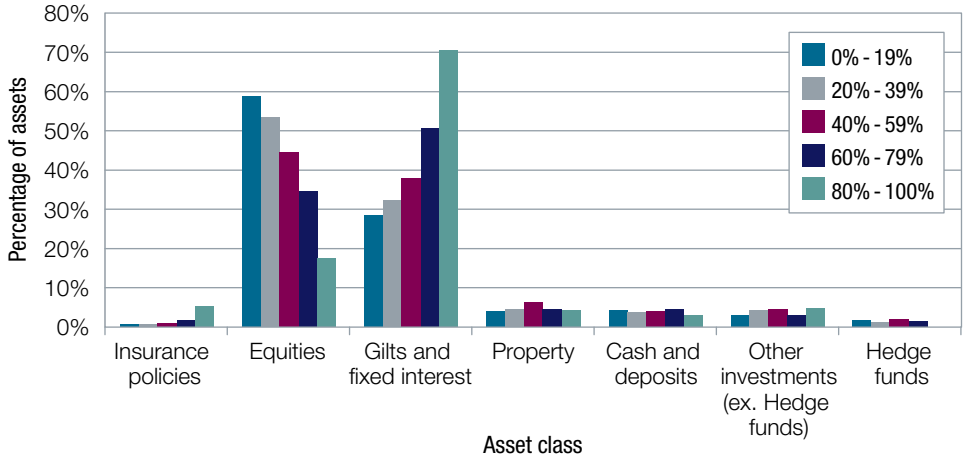
Chart 7.3 shows that better funded schemes tend to hold fewer equities and more bonds. This may reflect two things: first, that well funded schemes deliberately hold less in equities. Or second, that the sharp fall in the equity markets caused those schemes that were heavily invested in equities, at the date these statistics were taken, to have low funding levels.

7.6 Scheme maturity

Scheme maturity is measured as the proportion of liabilities that relate to pensions currently in payment. Chart 7.4[29] shows that more mature schemes tend to hold a significantly smaller proportion in equities than less mature schemes whilst the proportion held in gilts and fixed interest is considerably higher. This reflects the need to be able to match pension payment profiles more closely and to increase liquid funds available to pay pensions as schemes mature.

More mature schemes tend to hold fewer assets in equities.

Chart 7.4 | Weighted average asset allocation of schemes by current pensioner liabilities as a percentage of total liabilities

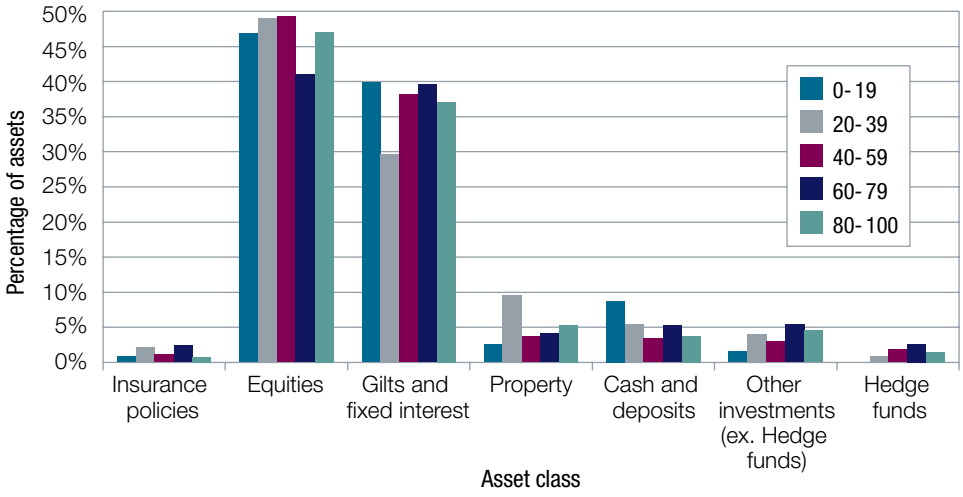


Source: PPF/The Pensions Regulator

7.7 Insolvency probability

There appears to be no clear relationship between asset allocation of schemes in the Purple 2009 dataset and their sponsors' insolvency risks as indicated by D&B insolvency score (for more on insolvency scores see Chapter 6, Insolvency risk). Previous Purple Books have also shown there to be little correlation between insolvency score and asset allocations.

Chart 7.5 | Weighted average asset allocation of schemes by insolvency score



Source: PPF/The Pensions Regulator

29 One scheme in the most mature group has been excluded from Chart 7.4. This scheme makes up 43 per cent of liabilities of that group. Excluding this scheme reduces the share of other investments from 21.6 per cent to 4.8 per cent.

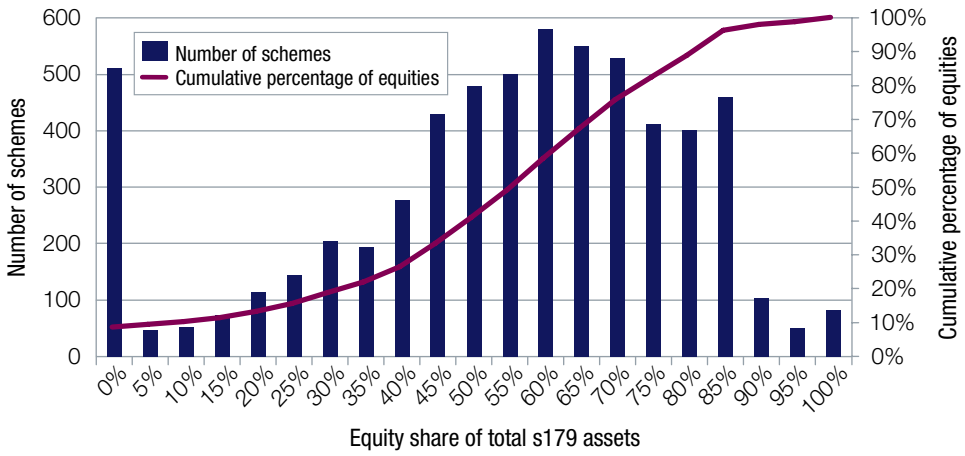
7.8 Distribution of assets across schemes

It is important to consider not only the average asset allocation according to different characteristics but also whether there are many schemes that significantly differ from the average.

Chart 7.6 represents the distribution of investment held in equities in the Purple 2009 dataset. Around eight per cent of schemes do not have any equities in their portfolios. Approximately 40 per cent hold more than 60 per cent of their assets in equities while around 12 per cent of schemes hold more than 80 per cent and 10 per cent of schemes hold 10 per cent or less. This follows a similar distribution to Purple 2008.

Around 40 per cent of schemes hold more than 60 per cent of their assets in equities.

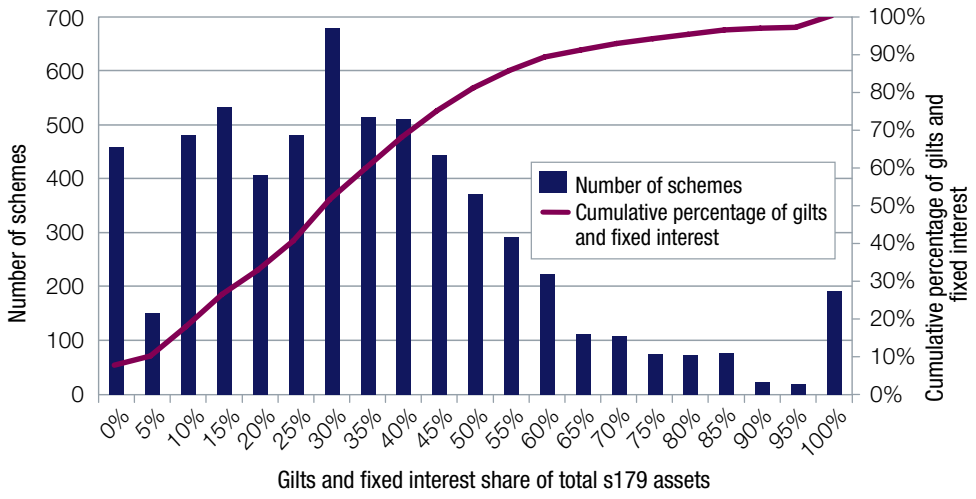
Chart 7.6 | Histogram of equities and cumulative percentage



Source: PPF/The Pensions Regulator

In the Purple 2009 dataset, there are 458 schemes that hold no investments in gilts and fixed interest assets. Around 30 per cent of schemes hold 20 per cent or less of their assets and 20 per cent of schemes hold over half their assets in gilts and fixed interest assets. Chart 7.7 shows a similar distribution to the one seen in Purple 2008. However, there is a shift towards holding a higher proportion of assets in gilts and fixed interest.

Chart 7.7 | Histogram of gilts and fixed interest and cumulative percentage



Source: PPF/The Pensions Regulator

In the Purple 2009 dataset only 4.3 per cent of schemes hold large amounts (over 80 per cent of total assets) in either property, cash and deposits, insurance policies or other investments and average asset allocation with respect to these assets is small for the majority of schemes.

Within equities there has been a marked switch over the last ten years from UK to overseas equities.

7.9 Longer term trends

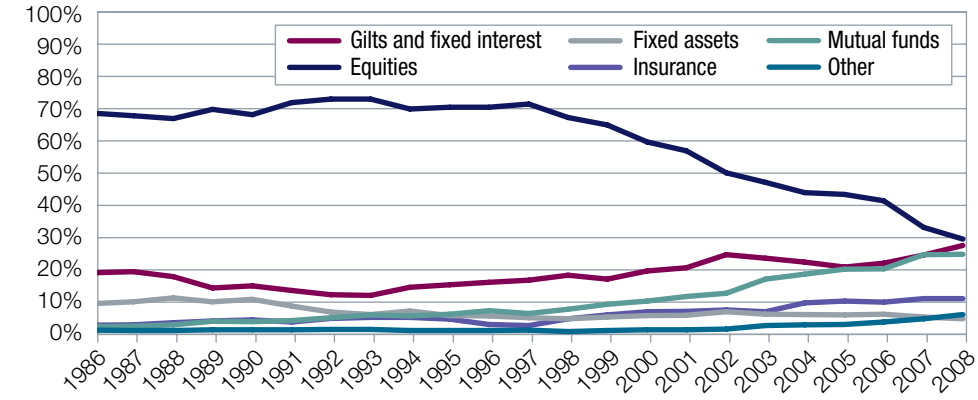
Interpreting trends in the asset allocation of DB pension schemes can be difficult given that changes in asset proportions invested can be influenced by flows between asset types, asset prices (or market conditions), or a combination of both. In order to distinguish between active and passive choices in asset allocation, the Purple Book examines flows into various asset classes as well as the share of total assets using data from the MQ5 survey taken by the ONS[30]. The MQ5 data cannot be directly compared with the Purple 2009 data as they are taken at different points in time. In addition, the MQ5 data includes local authorities and defined contribution schemes.

The MQ5 data in Chart 7.8 shows a shift in asset allocation away from equities over the 11 years to 2008 and towards mutual funds over the last 20. Gilts and fixed interest rose steadily from 1993 to 2002. The ONS data shows a continuing increase in the share of insurance-managed funds over the last 12 years, from 2.5 per cent in 1996 to 10.4 per cent in 2008. The allocation of other assets has increased from one per cent in 2002 to 5.5 per cent in 2008.

Within equities there has been a marked switch over the last ten years from UK to overseas equities (see Chart 7.9). In Q2 2009, the overseas share is well above the UK share. This mirrors the Purple 2009 database. Meanwhile, over the same period, there has been a large drop in the share of government and index-linked securities and a rise in the corporate bond share (see Chart 7.10).

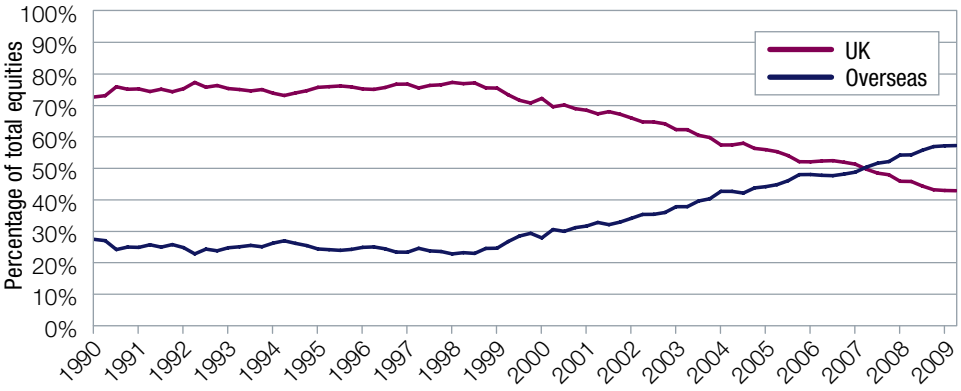
30 As there are charts that use quarterly data and charts that use annual data some show more recent data than others.

Chart 7.8 | Asset allocation by percentage share and asset class



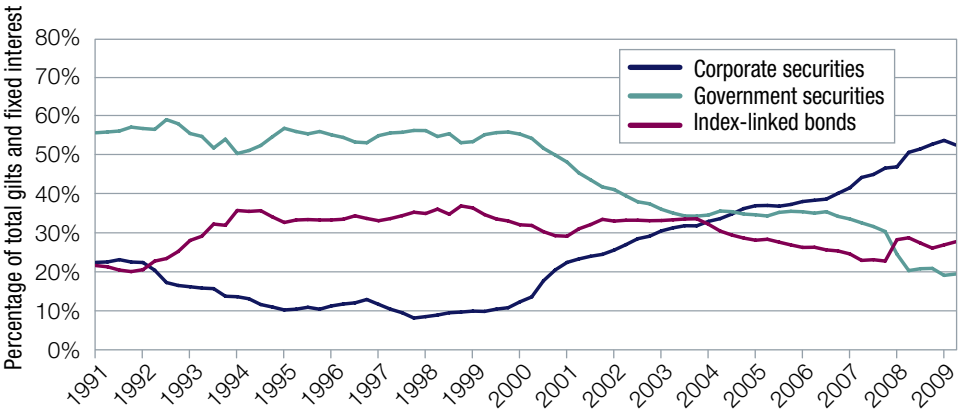
Source: Investment by Insurance Companies, Pension Funds and Trusts, ONS

Chart 7.9 | Proportion of total equities held in the UK and overseas



Source: Investment by Insurance Companies, Pension Funds and Trusts, ONS

Chart 7.10 | Proportion of total gilts and fixed interest held in corporate bonds, government securities and index linked bonds



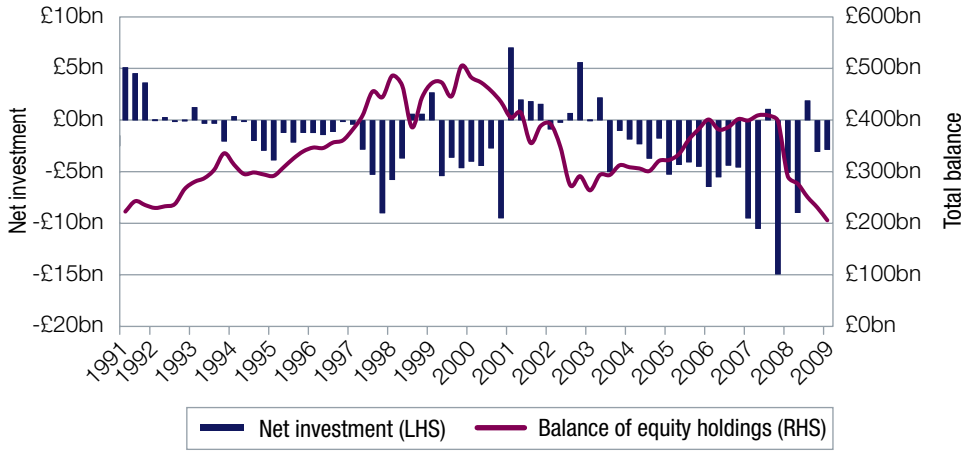
Source: Investment by Insurance Companies, Pension Funds and Trusts, ONS

The share of individual asset classes in total scheme assets can vary as a result of changes in asset prices, making it difficult to draw conclusions about pension scheme behaviour. To illuminate this issue, Charts 7.11 and 7.12 show net investment flows into equities and bonds.

Since 1993, there have been only nine quarters where net inflows into equities have exceeded £1 billion. Four of them occurred in 2001 and 2002 when equity markets were falling sharply and one occurred in the third quarter of 2008, at the time of the collapse of Lehman Brothers. This may indicate that over those periods pension funds had become concerned about the equity allocation falling below target levels or that funds regarded equities as being very cheap.

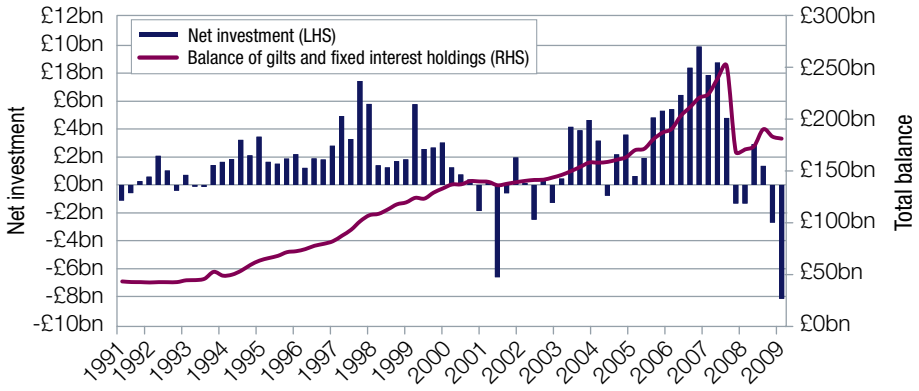
Conversely, there have been only four quarters where net outflows from gilts and fixed interest holdings exceeded £1 billion until 2008. The net inflows to this asset category have remained relatively constant until the fourth quarter of 2005 when they began to significantly increase. However, since 2008 there have been four out of six quarters of outflows in gilts and fixed interest, most significantly in 2009.

Chart 7.11 | Net investment and balance of equities



Source: Investment by Insurance Companies, Pension Funds and Trusts, Office for National Statistics

Chart 7.12 | Net investment and balance of gilts and fixed interest



Source: Investment by Insurance Companies, Pension Funds and Trusts, Office for National Statistics

8 Risk developments

8.1 Summary

- The Long-Term Risk Model (LTRM) is the key tool that the Board of the Pension Protection Fund (PPF) uses to understand and quantify the risks it faces over the long term. It helps the Board of the PPF assess the level of resources required to meet potential future claims.
- There was a marked rise in long-term risk to the Fund between March 2008 and June 2009.
- The escalation of long-term risk is the product of deteriorating scheme funding, worsening economic outlook and rising sponsor insolvency probabilities.
- Total weighted deficit (scheme insolvency probability multiplied by scheme deficit) has risen to £481.5 million in 2009 from £268.4 million in 2008.
- The proportion of weighted deficit attributable to schemes with the weakest insolvency probabilities is 19.8 per cent, down from 36.1 per cent in 2008.

8.2 Introduction

The sharp deterioration in both scheme funding and sponsor solvency since March 2008 has elevated long-term risk to the PPF. Despite this escalation, the Board of the PPF has committed to limit the increase in the total levy estimate by indexing the figure to average earnings until 2010/11. Targeted collections for 2008/09 were £675 million, rising to £700 million in 2009/10 and £720 million for 2010/11. Holding the levy estimate constant in real terms is designed to avoid increasing burdens on scheme sponsors given the impacts of the recession on corporate finances.

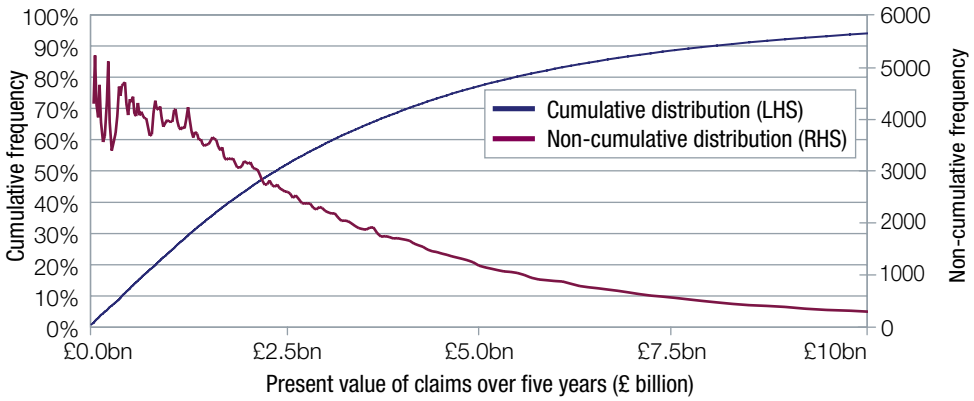
While the total levy estimate is set with reference to long-term risk, the distribution of the risk-based levy component between schemes is determined by factors relating to a one-year horizon. Individual levy bills are determined by one-year ahead insolvency probabilities, produced by Dun & Bradstreet (D&B) in combination with a measure of scheme underfunding. The analysis of weighted deficit presented below is intended to illustrate the movement in this combined driver of levy distribution.

8.3 Long-term risk and the levy estimate

In determining the total levy to be collected, the Board of the PPF does not limit its consideration of risk to the one-year horizon covered by D&B insolvency probabilities. The Board of the PPF has sought to develop information about both expected risks and potential risks over a multi-year period, and to set the levy with reference to this longer-term risk horizon.

A key source of information on long-term risk is the Board of the PPF's stochastic claims and funding model, the LTRM.[31] The LTRM models the full range of risk the PPF faces and indicates the probability of different outcomes. The output of the model is a probability distribution of the level of claims on the PPF over the chosen period, involving 500,000 scenarios (500 credit risk scenarios for each of the 1,000 economic scenarios). Chart 8.1 shows output from a June 2009 model run, projecting claims over a five-year period.

Chart 8.1 | Central scenario LTRM run over five years (June 2009)



Source: PPF/The Pensions Regulator

Chart 8.1 shows that the distribution of claims is heavily skewed, with a significant positive impact on the average claim (the mean figure) from claims at the higher end of the distribution. Another noteworthy feature is that a significant proportion of the risk, especially in scenarios where claims are above average (adverse scenarios), relates to large, currently stable schemes. This is in marked contrast to short-term risk measures, which indicate that the overwhelming majority of risk derives from smaller, less resilient schemes.

The probability distribution of future claims forms a key consideration in establishing the levy estimate (targeted total levy collections). Other relevant aspects of the model output include summary information on the claims distribution (see Table 8.1) over a five and 10 year horizon, along with a range of sensitivities. The Board of the PPF also considers an array of factors pertaining to the environment in which the PPF operates, such as current economic conditions and its view of trends in defined benefit (DB) pensions.

While long-term risk is instrumental in setting the levy estimate, as it allows the Board to gauge the collection needed to ensure that the PPF can meet its future obligations, it is short-term risk that is used to apportion the levy between schemes. Individual bills are calculated on the basis of each scheme's short-term insolvency and underfunding risk, and then scaled on aggregate using the levy scaling factor (LSF) and scheme-based levy multiplier (SBLM) to match the levy estimate.

A significant proportion of the risk in adverse scenarios relates to large, currently stable schemes.

31 For a full discussion of the LTRM's processes and functions, see the PPF's information paper, 'Modelling uncertainty: an introduction to the PPF Long-Term Risk Model', August 2007, at: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/ltrm_paper_aug_2007.pdf.

8.4 Evolution of long-term risk

Table 8.1 shows the extent of the increase in long-term risk as measured by the LTRM between March 2008 and June 2009. The LTRM is a stochastic model, and, as such, outcomes can be denoted by a percentile indicating the percentage of outcomes below that point. Expected (mean) claims over five years rose dramatically from £2.45 billion to £3.81 billion. This was driven by a combination of deteriorating scheme funding, worsening economic outlook and declining creditworthiness.

Long-term risk rose markedly between March 2008 and June 2009.

Table 8.1 | LTRM projections of five-year claims on the PPF (on a s179 basis)*

	Claim (annualised)				
	Median	Mean	75th percentile	90th percentile	95th percentile
June 2009 LTRM run	£1.29 billion	£3.81 billion	£4.47 billion	£10.28 billion	£15.80 billion
March 2008 LTRM run**	£0.32 billion	£2.45 billion	£2.03 billion	£6.60 billion	£11.94 billion

Source: PPF/The Pensions Regulator

* The following figures are obtained from the distribution of all 500,000 LTRM output scenarios.

** This run was performed on March 2008 valuation data, but with starting asset prices taken at June 2008.

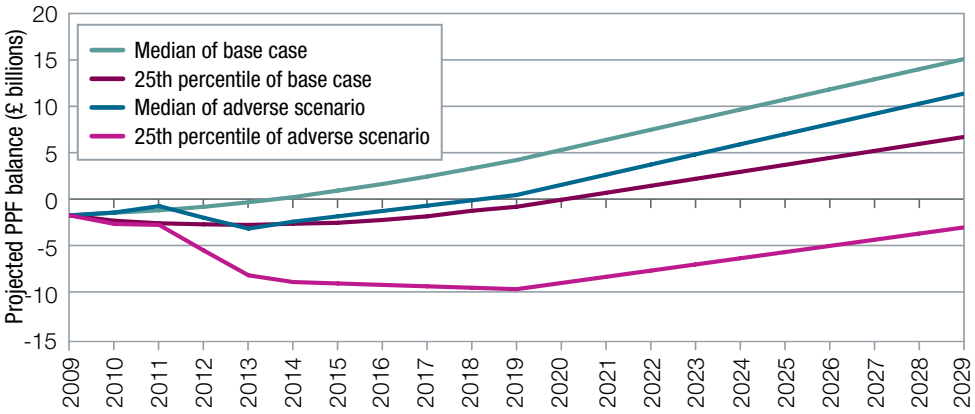
Among the assumptions that need to be made in producing a long-term claims distribution is the extent of deficit elimination under the scheme funding regime. For the 2008 and 2009 LTRM runs, the Board has made use of the information on technical provisions and recovery plan lengths summarised in the Pensions Regulator's *Scheme Funding: An Analysis of Recovery Plans 2009*[32].

The output shown in Table 8.1 was obtained on the basis of the LTRM's standard asset return calibrations. The model is also, however, capable of indicating long-term risk under a range of hypothetical economic scenarios where asset return assumptions are set consistent with a given broad growth outlook. Such scenario-based modelling is carried out on a regular basis to inform the Board of the PPF of the likelihood and range of future claims and funding outcomes and varying economic developments.

Chart 8.2 shows LTRM projections of the PPF's balance sheet under two economic scenarios. The baseline scenario assumes that there is an eventual return to trend growth conditions, following the current recession, the sharpest since the Second World War. In the adverse scenario, a return to trend conditions is delayed, with the economy experiencing a double-dip recession. Median (50th) and lower quartile (25th) outcomes are plotted for each economic scenario.

32 For more information see: http://www.pensionsregulator.gov.uk/pdf/scheme-funding-analysis-2009.pdf

Chart 8.2 | LTRM projections of the PPF balance sheet under baseline and adverse scenarios (June 2009)



Source: PPF/The Pensions Regulator

In interpreting the model output, it is clear that both the actual economic conditions experienced and the exposure to below median stochastic outcomes have a key influence on the pace of recovery.

Other factors which would be expected to have an influence on the rate of improvement are the impact of the scheme funding regime, the rate of scheme buy-outs and closures, and the effect of different assumptions about future levy policy (the outputs above assume the levy remains stable in real terms throughout the period).

The outcomes shown above are neither the most optimistic nor pessimistic scenarios the Board of the PPF has modelled. The range of economic scenarios modelled has indicated possible circumstances in which the pension protection framework would come under sustained pressure. Even in these extreme circumstances, PPF modelling work indicates that it would take a long time before the diminution of assets would threaten the ongoing payment of PPF compensation.

Even in extreme circumstances, PPF modelling work indicates that it would take a long time before the diminution of assets would threaten the ongoing payment of PPF compensation.

8.5 The allocation of the PPF levy

The Board of the PPF sets the levy estimate with a view to the current level and projected evolution of long-term risk. With regard to individual scheme levies, the risk-based component is set according to 12-month ahead insolvency probabilities for scheme sponsors provided by D&B and an expression of scheme underfunding. The scheme-based component is calculated as the product of scheme liabilities and a fixed scaling factor, the SBLM. Schemes' risk-based components are scaled using the LSF to ensure that total levy bills equate to the levy estimate.

Chapter 4, Scheme funding, looks at the funding position as at the end of March 2009 of the schemes in the Purple 2009 dataset while Chapter 6, Insolvency risk, analyses the one year ahead insolvency risk faced by the sponsoring companies. In the following analysis, we bring together these two aspects using the concept of 'weighted deficit'. This is done by multiplying each underfunded scheme's deficit (on a s179 basis) by the probability of its sponsor(s) becoming insolvent over the next 12 months (derived from D&B failure scores). The purpose of this analysis is to assess movement in the key determinants of individual levy bills.[33]

Weighted deficit for scheme A=
Deficit in scheme A (in £s) x Insolvency probability of sponsoring company

8.6 Grouping of insolvency probabilities

The PPF uses the insolvency probabilities for scheme sponsors produced by D&B, alongside an estimate of the scheme funding position, to calculate the risk-based levy for individual schemes.

To present the information in a manageable form, the insolvency probabilities and s179 funding levels have been grouped into the categories shown in Tables 8.2 and 8.3. For a fuller discussion of these categories see the Purple Book 2007.

33 It should be noted, however, that the measure of underfunding used for levy purposes is a transformation of a scheme's deficit, scaling up liabilities to reflect funding volatility. A straightforward deficit measure is employed here for simplicity of calculation and analysis.

Table 8.2 | Insolvency groups

Insolvency group	Assumed one year forward probabilities of insolvency included in the group
1	Less than or equal to 0.0740%
2	0.0740% to 0.1804%
3	0.1804% to 0.3033%
4	0.3033% to 0.4286%
5	0.4286% to 0.5548%
6	0.5548% to 0.7241%
7	0.7241% to 0.9609%
8	0.9609% to 1.3044%
9	1.3044% to 3.5210%
10	More than 3.5210%

Source: PPF/The Pensions Regulator

Table 8.3 | Underfunding groups

Underfunding group	Ratio of assets to s179 liabilities
1	75% to 100%
2	50% to 75%
3	Less than 50%

Source: PPF/The Pensions Regulator

8.7 Probability-weighted deficits for deficit schemes

The following analysis focuses on schemes in deficit at 31 March 2009 (on a s179 basis). As in earlier Purple Books, the analysis excludes schemes in assessment. This section documents the distribution of weighted deficit by industry. Please refer to Annex B for sample-wide analysis of insolvency probabilities and the distribution of funding positions by asset size.

Summing over the products of schemes' s179 deficits and insolvency probabilities gives a total weighted deficit of £481.5 million for the Purple 2009 sample at 31 March 2009. The breakdown of this by insolvency and underfunding groups can be found in Table 8.4.

Around 20 per cent of insolvency probability-weighted deficit is in the worst insolvency group.

Table 8.4 | Weighted deficit by insolvency and underfunding group (schemes in deficit)

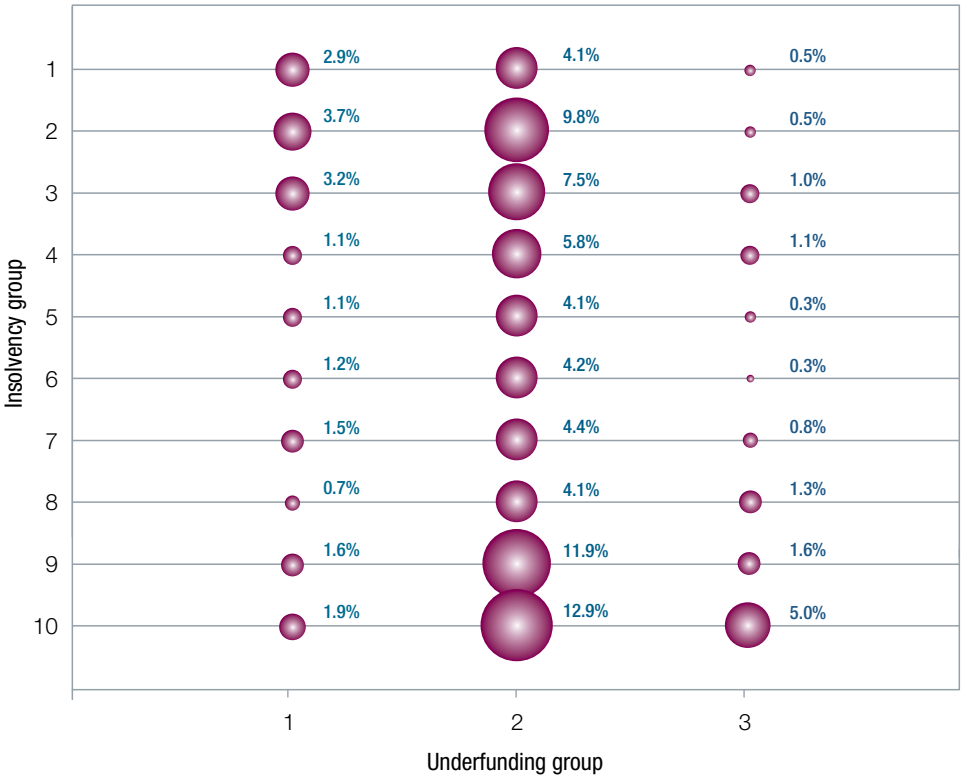
Weighted deficit (£ million)	Underfunding group			
Insolvency group	1	2	3	Total
1	14.1	19.5	2.2	35.9
2	17.8	47.1	2.5	67.4
3	15.6	36.3	4.6	56.5
4	5.3	27.7	5.1	38.1
5	5.4	19.8	1.5	26.8
6	5.6	20.1	1.3	27.0
7	7.3	21.3	3.9	32.5
8	3.5	19.8	6.1	29.4
9	7.8	57.5	7.7	73.0
10	8.9	61.9	24.1	94.9
Total	**91.3**	**331.1**	**59.1**	**481.5**

Source: PPF/The Pensions Regulator

Chart 8.3 shows the distribution of weighted deficit across underfunding and insolvency groups. The size of each bubble is indicative of the proportion each funding group intersection contributes to total weighted deficit.

When considering only underfunded schemes, most of the weighted deficit is concentrated in the highest insolvency group, Group 10, with the group as a whole contributing 19.8 per cent of the total. There are only 2.0 per cent of schemes in this group, suggesting a very high average weighted deficit for these schemes. The average weighted deficit for schemes in Group 10 is £0.84 million (see Table 8.5). This figure is more than four times the average for Group 9 (£0.20 million). It should be noted that the concentration of schemes in Group 10 is significantly lower than in Purple 2008, as a number of the schemes in that group entered the PPF's assessment period between March 2008 and March 2009.

Chart 8.3 | Weighted deficit by underfunding and insolvency group as a percentage of total



Source: PPF/The Pensions Regulator

The manufacturing sector remains the principal source of probability-weighted deficit.

Table 8.5 | Average weighted deficit per scheme (schemes in deficit)

Insolvency group	Average insolvency probability	Average funding position	Weighted deficit (£millions)	Number of schemes	Average weighted deficit per scheme (£millions)
1	0.0%	79.81%	35.9	1,601	0.02
2	0.1%	80.60%	67.4	1,313	0.05
3	0.2%	82.97%	56.5	795	0.07
4	0.4%	76.43%	38.1	502	0.08
5	0.5%	77.39%	26.8	337	0.08
6	0.6%	81.64%	27.0	254	0.11
7	0.8%	72.92%	32.5	271	0.12
8	1.1%	75.42%	29.4	202	0.15
9	2.1%	76.18%	73.0	370	0.20
10	11.8%	76.45%	94.9	113	0.84
Total			**481.5**	**5758**	**0.08**

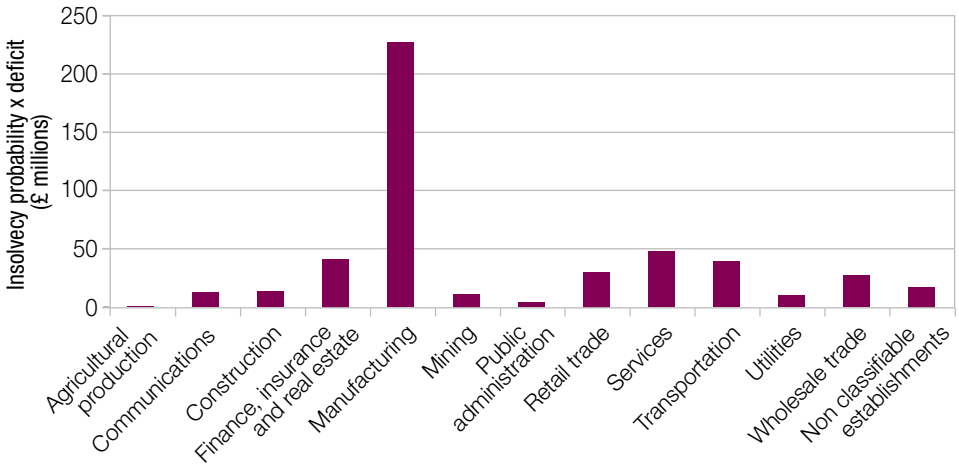
Source: PPF/The Pensions Regulator

8.8 Weighted deficit concentration by industry

Scheme funding and sponsor insolvency probabilities vary across industrial sectors. This variation can be partly attributed to differing economic sector-specific trends. Manufacturing, for example, has experienced declining profitability for several decades and its cyclical swings tend to be greater than those for the economy as a whole. Manufacturing's share of total defined benefit schemes is much larger than its total economic activity, as noted in Chapter 3, Scheme demographics.

An industry breakdown of weighted deficit is presented in Chart 8.4.[34] The manufacturing sector accounts for about 47 per cent of weighted deficit up from 45 per cent in 2008. This is followed by services, and finance, insurance and real estate which account for 10 and 9 per cent respectively.

Chart 8.4 | Weighted deficit by industry (for underfunded schemes)

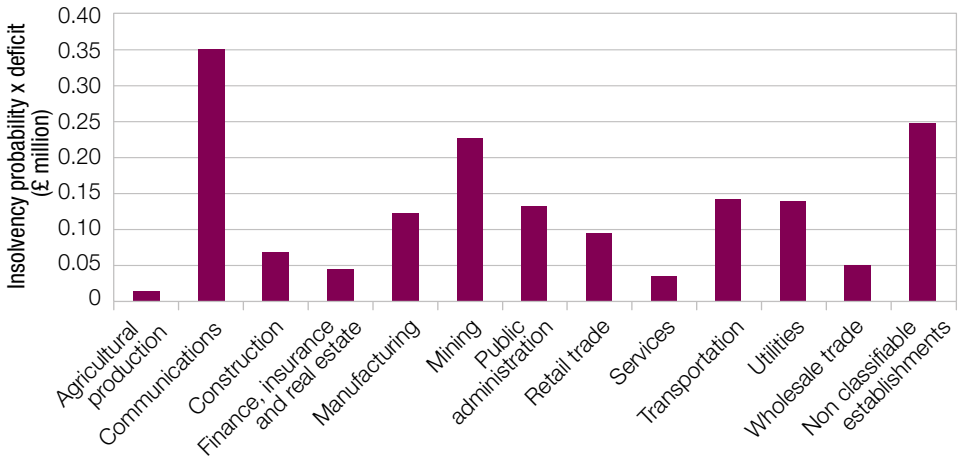


Source: PPF/The Pensions Regulator

34 Scheme sponsors are classified by industry using US 1972 SIC codes.

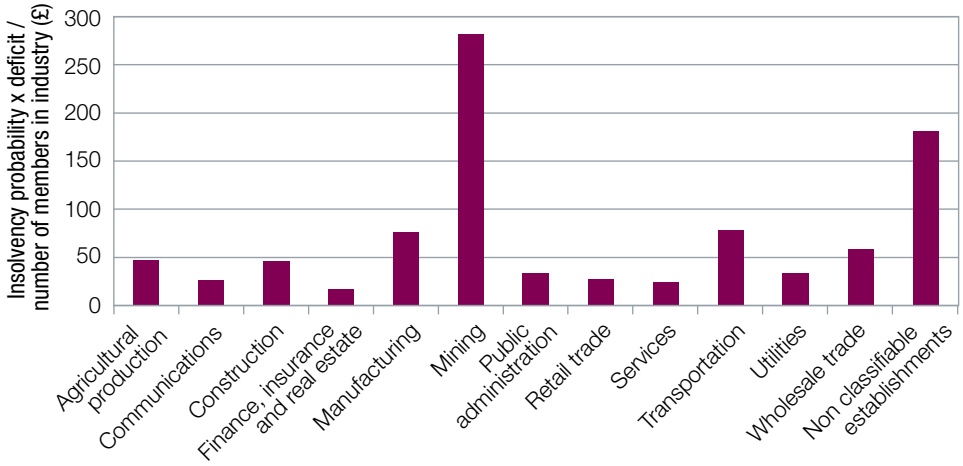
The communications sector exhibits the highest weighted deficit per scheme, followed by mining and utilities (Chart 8.5). Mining exhibits the highest weighted deficit per member, due primarily to the sector's relatively low average funding ratio (see Chart 4.10), followed by transportation and manufacturing (Chart 8.6).

Chart 8.5 | Average weighted deficit per scheme by industry (for underfunded schemes)



Source: PPF/The Pensions Regulator

Chart 8.6 | Average weigthed deficit per member by industry (for underfunded schemes)



Source: PPF/The Pensions Regulator

9 Levy payments

9.1 Summary

- The Pension Protection Fund (PPF) is expected to collect £651 million in respect of the levy in the 2008/09 levy year.[35]
- This is £24 million less than the £675 million levy estimate announced in November 2007. The final estimate is closer to the initial estimate than in earlier years because of better data, and changes to the timing of setting the levy scaling factor for the 2008/09 levy year.
- The levy raised in 2008/09 is £66 million more than the previous year, and more than double the amount collected in 2006/07.
- The number of schemes paying no risk-based levy was 608, similar to the 590 in 2007/08, while 564 schemes had their risk-based levy capped at one per cent of their s179 liabilities.
- The top 10 levy payers paid almost the same proportion, 10 per cent of levy in 2008/09 as in the previous year.
- Levy paid as a percentage of assets was unchanged in 2008/09 at 0.08 per cent.

The PPF is expecting to collect £651 million for the 2008/09 levy year.

9.2 Introduction

The PPF has been collecting a levy based on risk for three years, 2006/07, 2007/08, and 2008/09. This chapter looks at the levy payments over this three year period for the same 6,682 mainly private sector defined benefit (DB) schemes each year based on invoices, and is not based on the Purple 2009 dataset described in other chapters. For this reason, information from this chapter should not be compared with the rest of Purple 2009. It describes how levy payments vary over levy years in terms of scheme size, insolvency probability and funding level.[36]

9.3 Levy estimate

For the 2008/09 levy year, the levy estimate was set at £675 million. An 80:20 split between risk-based and scheme-based levy per scheme was again adopted for 2008/09. The average levy paid per scheme in the 2008/09 year across the sample was approximately £92,000 (around £54 per scheme member).

35 For more information see A Guide to the Pension Protection Fund Levy 2008/09 at http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/levy_guide_0809.pdf.

36 When comparing levy invoices over the 2006/07 to 2008/09 period the analysis in this chapter uses a sample of 6,682 schemes for which full schemes information was available over all years. This constitutes £219.6 million, £476.5 million, and £607.6 million in levy invoiced in 2006/07, 2007/08, and 2008/09 levy years respectively. When discussing the 2008/09 levy year only a slightly larger sample of 7,053 schemes is used, which accounts for £650.5 million in levy.

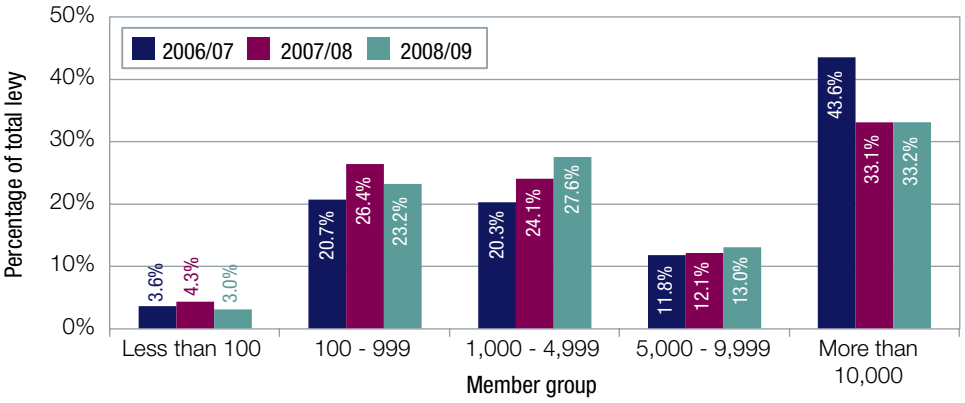
The PPF's 2008/09 Annual Report and Accounts show that at the end of August 2009 the PPF had collected £582.9 million for the 2008/09 levy year. For 2008/09 the total collection is estimated to be £651 million.[37] This estimated collection is close to the initial estimate published in November 2007, and contrasts with the experience of previous years where a significant difference between the levy estimate and levy collected has occurred.

The closer alignment between the two estimated figures is the result of a number of factors, including the timing for setting the levy scaling factor (LSF) – the factor used to sum the individual levies to the levy estimate. The notification of contingent assets and deficit reduction contributions to the PPF did not reduce the levy estimate as it had in past levy years as the final LSF was set at the beginning of the year when these had been submitted to the PPF. For the 2008/09 levy year the insolvency probability of schemes was measured at 31 March 2008 and the funding position at 31 October 2007.

More accurate data was also an important factor in reducing the changes between the anticipated levy and that then invoiced and collected. The Pensions Regulator's online web-based scheme return system, 'Exchange', which gave schemes greater flexibility to submit and check data held, was launched in December 2007. As a result of the improved opportunity to submit and check data, schemes were no longer able to correct data they had submitted incorrectly after the start of the levy year.

9.4 Levy by scheme size[38]

Chart 9.1 | Levy distribution by scheme size



Source: PPF/The Pensions Regulator

Larger schemes, those with more than 5,000 members, paid 46.2 per cent of the total levy in 2008/09, up marginally from 45.2 per cent in 2007/08. However, schemes with less than 1,000 members saw a decrease in the share of levy they paid from 30.7 per cent in 2007/08 to 26.2 per cent in 2008/09. The largest change was for schemes in the 1,000 to 4,999 category whose proportion of levy paid increased from 24.1 per cent to 27.6 per cent.

37 For more detail on levy collection see the Annual Report & Accounts 2008/09 on the PPF website at http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/ara_0809.pdf. The total levy invoiced for 2008/09 was slightly higher than the expected total collection as stated in the Annual Report & Accounts due to accounting provisions which allow for un-collectable levy. As such, the levy invoice figures used in the analysis for Chapter 6 are scaled down by 0.02% to match the Annual Report & Accounts.

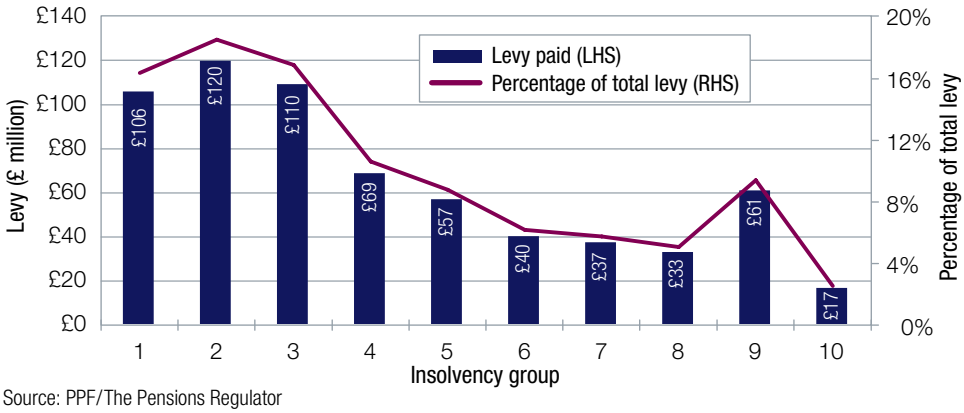
38 Some of the figures quoted in this chapter will differ from those quoted in previous versions of the Purple Book due to the specific schemes included in the dataset between years. Please note that figures may not sum to 100 per cent due to rounding.

9.5 Levy by insolvency group

Chart 9.2 shows how in 2008/09 levy payments were distributed across all the insolvency groups. (For definitions of insolvency groups, see Chapter 8 Risk developments). Those schemes in insolvency Group 2 contributed the most – £120 million or 18.5 per cent of the total.

Beginning from the 2008/09 levy year the PPF decided not to collect a levy from schemes in the PPF assessment period. As such the levy collected from schemes in insolvency Group 10 has fallen compared with the same group in Purple 2008.

Chart 9.2 | Levy distribution by insolvency group*



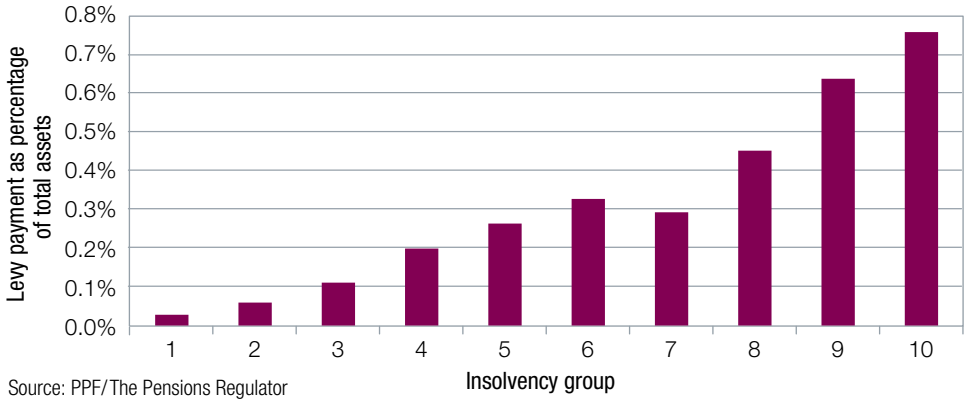
Source: PPF/The Pensions Regulator

* Based on sample of 7,053 schemes for the 2008/09 levy year.

Total levy as a proportion of total scheme assets remained at 0.08 per cent.

In general, levies are very small relative to total s179 assets – at around 0.08 per cent in 2008/09 (the same as in 2007/08). Chart 9.3 illustrates the breakdown in levy payments as a percentage of s179 assets across insolvency groups. In the worst insolvency group, Group 10, the levy paid in 2008/09 amounted to 0.8 per cent of total assets while in the best insolvency group, Group 1, the levy paid amounted to 0.03 per cent of assets.

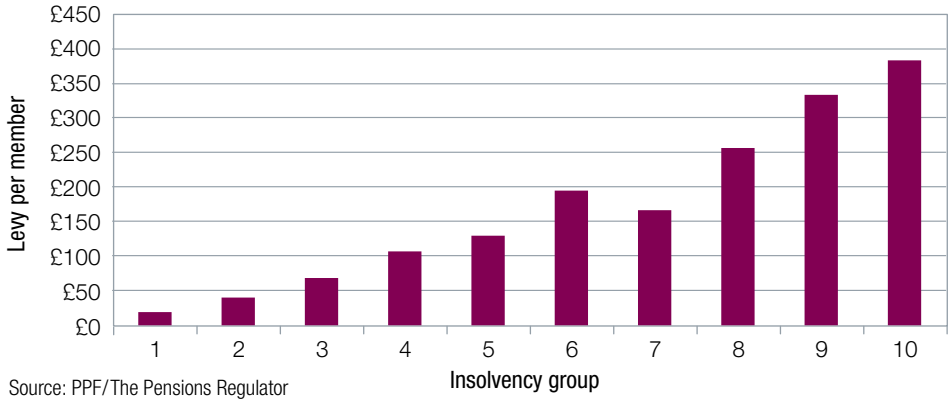
Chart 9.3 | Levy payments as a proportion of assets by insolvency group



Source: PPF/The Pensions Regulator

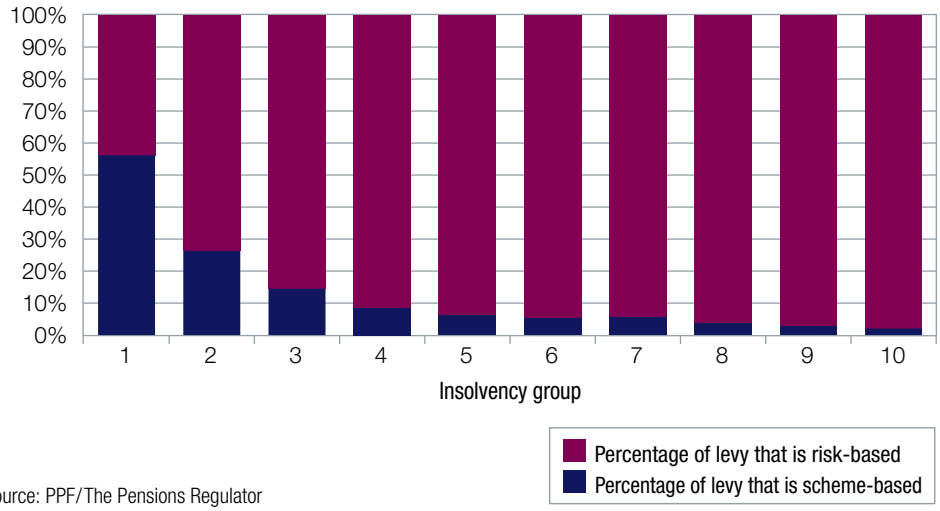
In 2008/09, levy per member increases as the insolvency risk of the sponsoring employer rises (Chart 9.4).

Chart 9.4 | Levy per member by insolvency group



Source: PPF/The Pensions Regulator

Chart 9.5 | Percentage of total levy that is scheme and risk-based by insolvency group*



Source: PPF/The Pensions Regulator

* Based on sample of 7,053 schemes for the 2008/09 levy year.

Chart 9.5 shows that in 2008/09 (as in previous years), the share of risk-based levy increases as the insolvency risk rises, and the share of scheme-based levy falls.

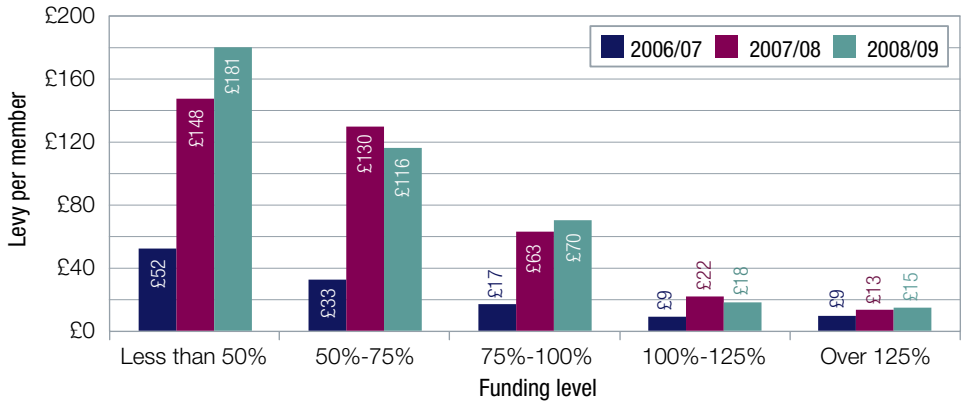
9.6 Levy by funding level

Table 9.1 | Funding groups

Funding group	Funding position on s179 basis
1	Less than 50%
2	50% to 75%
3	75% to 100%
4	100% to 125%
5	Over 125%

Chart 9.6 shows that better funded schemes paid less levy per member in each levy year. Those schemes over 125 per cent funded paid no risk-based levy in 2007/08. For the 2008/09 levy year the funding level at which schemes paid no risk-based levy increased to 140 per cent.

Chart 9.6 | Levy per member by funding level



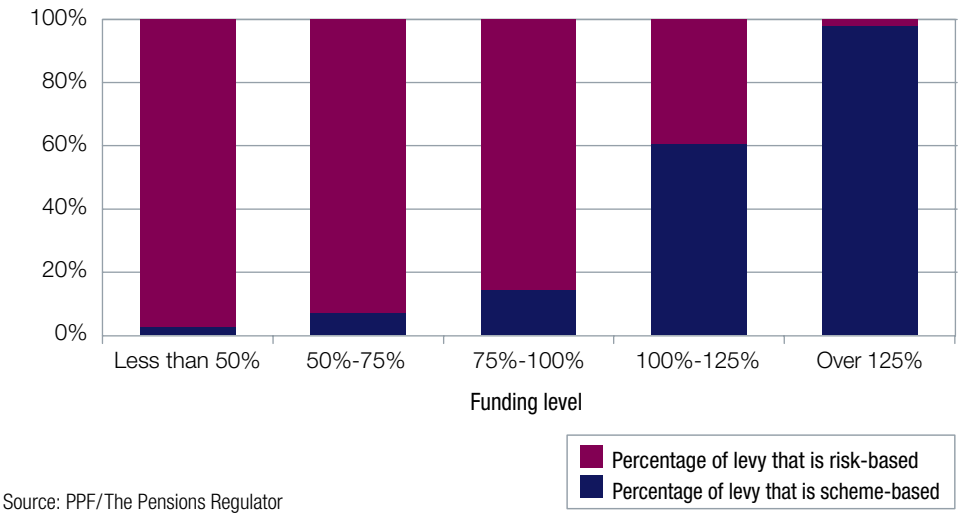
Source: PPF/The Pensions Regulator

Better funded schemes pay less levy per member.

The figures for the 2006/07 levy year in the chart above are much less than in subsequent years owing to under collection of the estimated levy. More details on the reasons for under collection can be found in Purple 2007.

Chart 9.7 shows the composition of total levy paid in the 2008/09 levy year. The proportion of risk-based levy declines as scheme funding improves.

Chart 9.7 | Percentage of total levy that is scheme- and risk-based levy by funding level*



Source: PPF/The Pensions Regulator

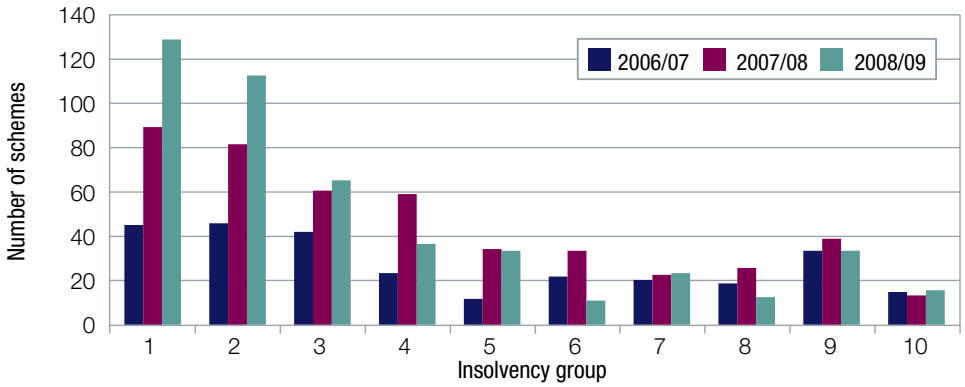
* Based on sample of 7,053 schemes for the 2008/09 levy year.

9.7 Schemes paying no risk-based levy

The number of schemes paying no risk-based levy increased to 608 in the 2008/09 levy year compared with 590 in 2007/08 (see Table 9.2).[39] In the 2008/09 levy year, this represented nine per cent of total schemes and 10 per cent of total liabilities, compared with nine and 12 per cent for 2007/08.

A larger number of schemes in insolvency groups 1 to 3 paid no risk-based levy in 2008/09 than in 2007/08.

Chart 9.8 | Number of schemes paying no risk-based levy

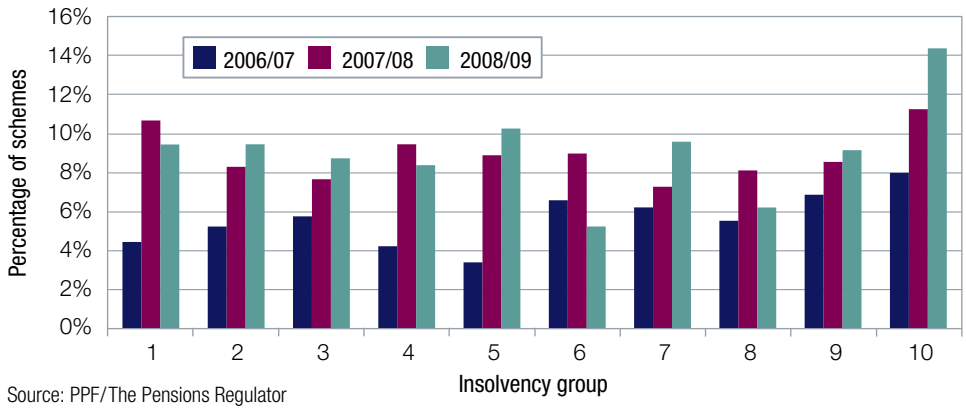


Source: PPF/The Pensions Regulator

39 These figures are based on the comparative sample used. 644 schemes did not pay a risk-based levy in the larger dataset used for 2008/09.

A larger number of schemes than in 2007/08 in the better insolvency groups, Groups 1 to 3, paid no risk-based levy in 2008/09 as the funding position of schemes in these groups improved taking them over the 140 per cent threshold. It is possible for very small schemes, which are in the higher insolvency groups, to be over the 140 per cent levy threshold and pay no risk-based levy.

Chart 9.9 | Percentage of schemes in each insolvency group paying no risk-based levy



Source: PPF/The Pensions Regulator

Table 9.2 | Schemes paying no risk-based levy*

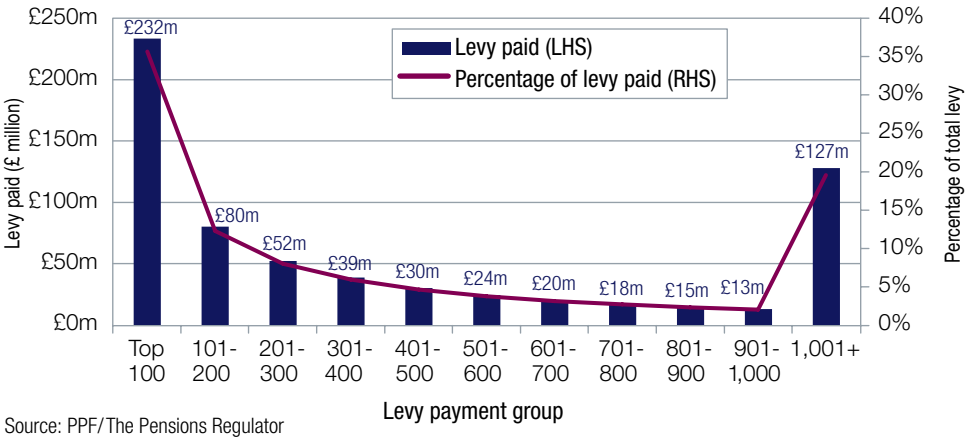
	Number of schemes	Percentage of total number of schemes	s179 liabilities (£ billion)	s179 liabilities as percentage of total liabilities
2006/07	356	5%	44.3	6%
2007/08	590	9%	83.8	12%
2008/09	608	9%	72.6	10%

* This represents the number of schemes paying no risk-based levy in the comparative sample of schemes used across levy years. The total number of schemes who do not pay a risk-based levy will be slightly higher, for example, in 2008/09 644 schemes will not pay a risk-based levy.

9.8 Levy paid by the largest levy payers

The top 10 levy payers continue to contribute approximatley 10 per cent of the total levy.

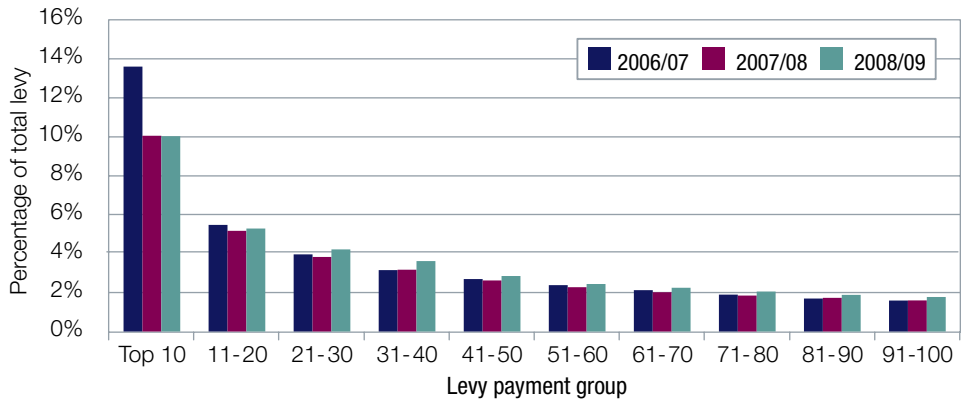
Chart 9.10 | Distribution of levy payments by largest levy payers*



Source: PPF/The Pensions Regulator

* A full sample of 7,053 schemes for the 2008/09 levy year was used in constructing this chart.

Chart 9.11 | Percentage of total levy paid by largest 100 levy-paying schemes



Source: PPF/The Pensions Regulator

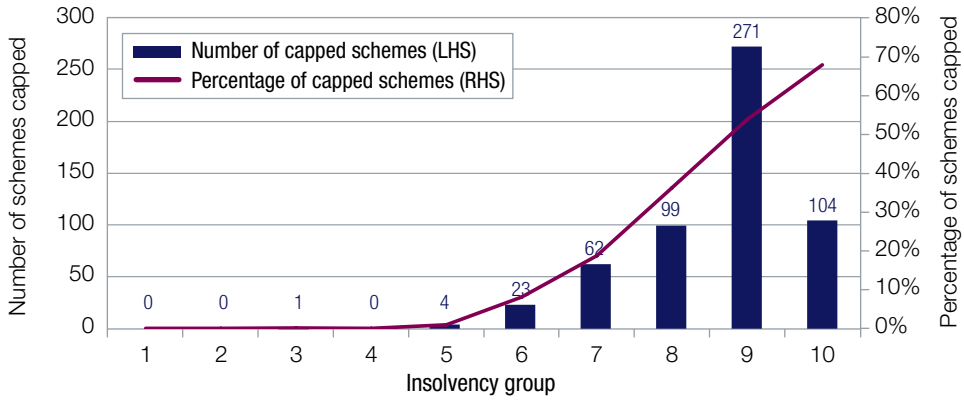
Chart 9.10 shows that the top 100 levy payers in 2008/09 paid £232 million or 36 per cent of the total levy. These schemes account for approximately one per cent of the total number of schemes, but 35 per cent of total s179 liabilities. The composition of the top 100 levy payers has changed slightly from year to year.

Comparing the top levy payers over 2007/08 and 2008/09, Chart 9.11 shows that the top 10 levy payers paid virtually the same percentage of total levy in 2007/08 – 10 per cent – as in 2008/09. Those schemes from 10 to 100 all paid slightly higher percentages of the levy compared with the previous year.

9.9 Capped schemes

In 2008/09 the risk-based levy was capped at one per cent of a scheme's s179 liabilities compared with 1.25 per cent in 2007/08 and 0.5 per cent in 2006/07. In 2008/09, 564 schemes had their risk-based levy capped, eight per cent of the total. The liabilities of those capped schemes totalled £9.8 billion or one per cent of total liabilities.

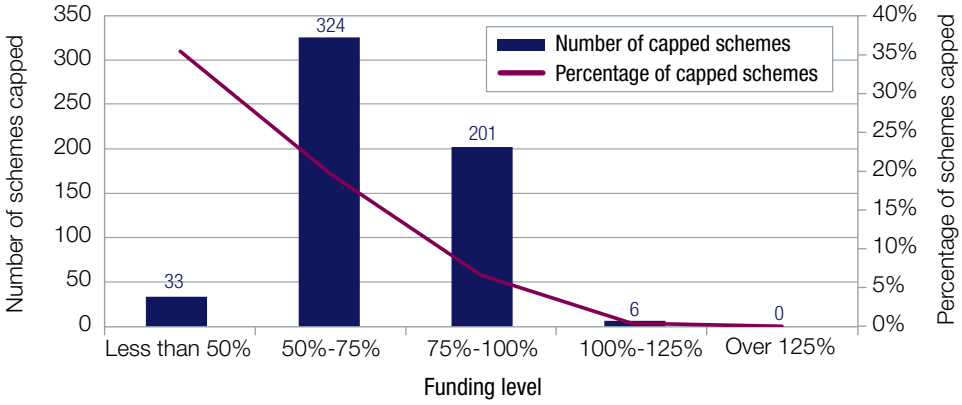
Chart 9.12 | Number of schemes with capped risk-based levies by insolvency group*



Source: PPF/The Pensions Regulator

* Based on a sample of 7,053 schemes for the 2008/09 levy year.

Chart 9.13 | Number of schemes with capped risk-based levies by funding level



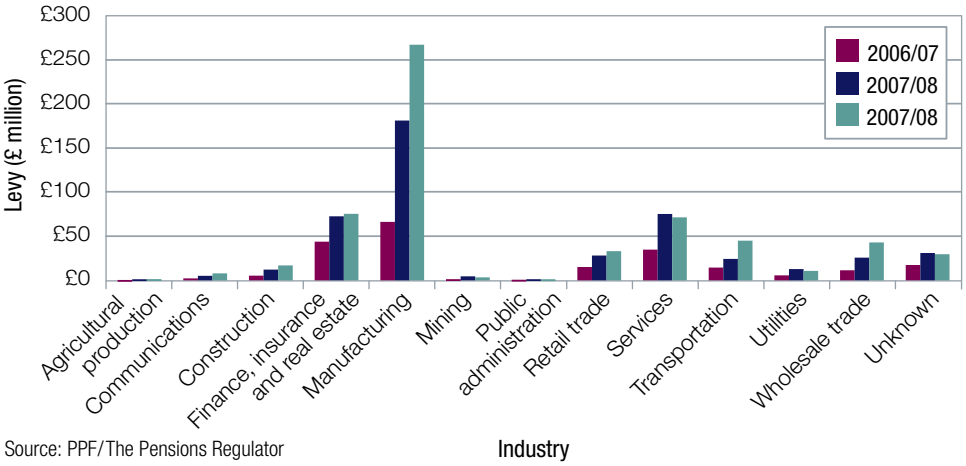
Source: PPF/The Pensions Regulator

Charts 9.12 and 9.13 above show that schemes with higher insolvency probabilities, or poorer funding, are most likely to have their risk-based levy capped. Of the 564 capped schemes, 375 were in Insolvency Groups nine and 10.

9.10 Levy paid by industry category

Chart 9.14 shows that the finance, insurance and real estate, manufacturing, and services continue to be the highest levy payers. These industries accounted for 68 per cent of the total levy in 2008/09 (69 per cent in 2007/08), and 68 per cent of the total number of schemes. Manufacturing saw the largest monetary increase in levy payments from £181.6 million to £267.8 million.[40]

Chart 9.14 | Total levy by industry

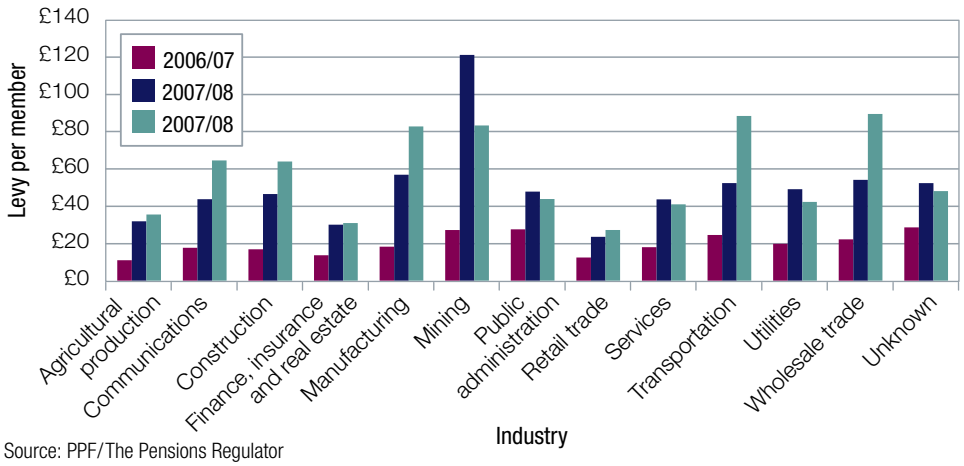


Source: PPF/The Pensions Regulator

The manufacturing sector pays the largest amount of levy, but the mining sector pays the most levy per member.

Chart 9.15 shows the levy paid per member by industry across levy years. Eight industries had an increase in their levy per member between the 2007/08 and 2008/09 levy years, while five saw decreases. The biggest monetary increase in levy per member was in the transportation industry. The levy per member for this industry increased by £36, from £52 in 2007/08 to £88 in 2008/09. The mining industry has the largest decline in levy per member, falling from £121 in 2007/08 to £83 in 2008/09.

Chart 9.15 | Levy per member by industry



Source: PPF/The Pensions Regulator

40 Industry classification is based on 1972 US Standard Industry Classification (SIC) codes.

10 Schemes in assessment

10.1 Summary[41]

- There were 240 schemes (201,000 members) in a Pension Protection Fund (PPF) assessment period as at 31 March 2009, compared with 217 (123,000 members) a year earlier.
- The rise reflects 92 new schemes entering and remaining in assessment, 54 schemes transferring into the PPF and 15 being rescued, deemed to be ineligible, or withdrawn.
- Where the sponsoring employer's industry is known, just over half the companies sponsoring schemes in assessment came from manufacturing (52 per cent) while 11 per cent came from finance, insurance and real estate and 11 per cent from services.
- The representation of manufacturing in schemes in assessment is much greater than its share of the companies in the PPF universe (31 per cent) which in turn is greater than the share of manufacturing in the economy (12 per cent).
- On a section 179 (s179) basis, as at 31 March 2009 the estimated aggregate assets of schemes in assessment totalled £6.6 billion, and their liabilities, £9.4 billion. Liabilities averaged £39.1 million per scheme and assets averaged £27.6 million.
- Thirty eight per cent of the schemes in assessment have liabilities below £5 million although schemes this small make up only 27 per cent of the Purple 2009 dataset.
- The aggregate funding level (total assets divided by total liabilities) of the schemes in assessment as at 31 March 2009 was 70.5 per cent which is below the aggregate funding level of the schemes in the Purple 2009 dataset (79.6 per cent). It is also well below the aggregate funding level of the schemes in assessment a year earlier (78.3 per cent) because funding levels, in general, have fallen. There are 148 schemes in assessment in 2009 that were in assessment in 2008. These schemes have seen their aggregate funding level drop from 78.7 per cent to 70.6 per cent between the two datasets.
- The larger schemes (assets greater than £50 million) in assessment are, on average, better funded than the smaller schemes. Schemes with over £50 million in assets have an average funding level of 77.5 per cent. Those with less than £50 million in assets have an average funding level of 66.5 per cent.
- The asset allocation of schemes in assessment from the scheme return prior to their entering the assessment period showed the largest shares of their assets in equities (45 per cent) and gilts and fixed interest assets (28 per cent). This equity share is lower than the Purple 2009 dataset share of 47 per cent of assets. Once in assessment, schemes tend to follow an investment strategy that is more oriented towards gilts and fixed interest holdings.
- There is a much higher proportion of assets in other investments than in Purple 2009 (seven per cent compared to three per cent). Schemes in assessment also hold 14 per cent of assets in insurance policies, which is greater than the 12 per cent seen in Purple 2009.
- Between the end of March and the end of September 2009, a further four schemes in the schemes in assessment dataset had transferred into the PPF, out of a total of 92 transferred since April 2005.

41 Note that the figures in this Chapter may differ from those published elsewhere by the PPF, particularly in the 2008/09 Annual Report & Accounts. Differences may occur due to the treatment of scheme sections and segregated parts, and the exclusion of schemes in surplus.

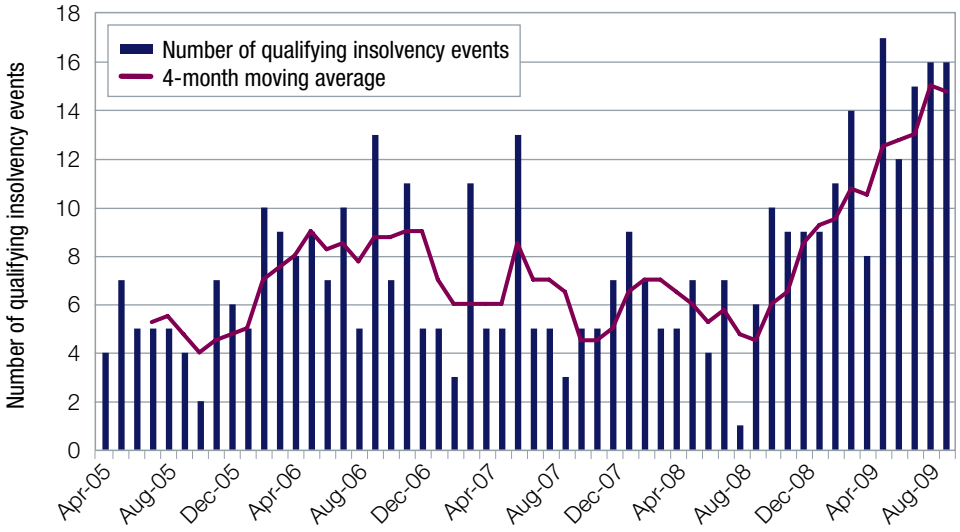
10.2 Introduction

This chapter looks at the 240 schemes in the PPF assessment period as at 31 March 2009. In general, an assessment period is triggered by a qualifying insolvency event[42] of an employer of an eligible scheme. The purpose of an assessment period is to ascertain whether the pension scheme can be rescued, or whether it can afford to secure benefits at least equal to the compensation the PPF would pay if it assumed responsibility for the scheme. For schemes likely to transfer, the assessment period must last at least a year. However, this could be longer depending on the size and complexity of the scheme. During the assessment period a thorough review of each scheme is taken, with the main aim being to verify scheme data so that compensation can be calculated accurately.

Between 1 April 2008 and 31 March 2009 54 schemes transferred into the PPF with a total of 18,559 members. This has increased the total number of members that have transferred to the PPF to 30,732.

Chart 10.1 shows the number of qualifying insolvency events by date of insolvency. The four-month moving average line shows a strong upward trend in the number of qualifying insolvency events since August 2008. The number of insolvency events over the 12 months to 31 March 2009 was 92, up from 74 in the 12 months to 31 March 2008. The average insolvency rate over the year to March 2009 of 0.6 per cent (92 insolvencies as a percentage of 16,000, the estimated number of company sponsors in the PPF universe) corresponds to the unweighted average of the one-year ahead Dun & Bradstreet (D&B) insolvency probability of 0.8 per cent in March 2008. The numbers of qualifying insolvency events may differ from those shown in Chapter 6, Insolvency risk, and the previous year. This is because it takes time for the most recent events to be verified and some may be rejected. In this Chapter this has not been accounted for due to limitations of the source data.

Chart 10.1 | Number of qualifying insolvency events by date of insolvency

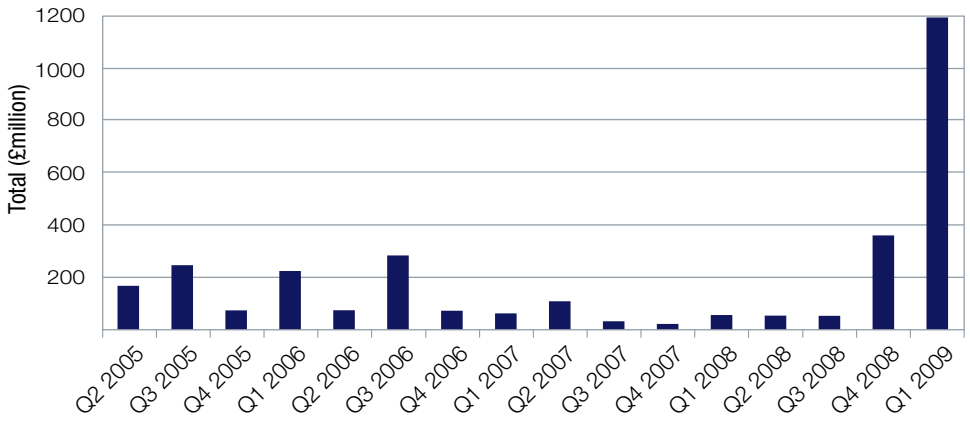


Source: PPF/The Pensions Regulator

42 A qualifying insolvency event is defined in legislation. For more information see the PPF's website at http://www.pensionprotectionfund.org.uk/about-us/eligibility/pages/insolvencyevents.aspx.

The s179 deficits of the schemes that have entered into assessment between April 2005 and March 2009 on a quarterly basis are shown in Chart 10.2. The deficit of schemes entering assessment per quarter is £190.9 million on average, although there is significant variation between quarters. In the year to 31 March 2009, the average quarterly deficit was £413.4 million. Higher total deficits in recent quarters mainly reflect the entry into the assessment period of a small number of schemes with large deficits together with a growing number of insolvency events.

Chart 10.2 | Total s179 deficits for schemes entering an assessment period



Source: PPF/The Pensions Regulator

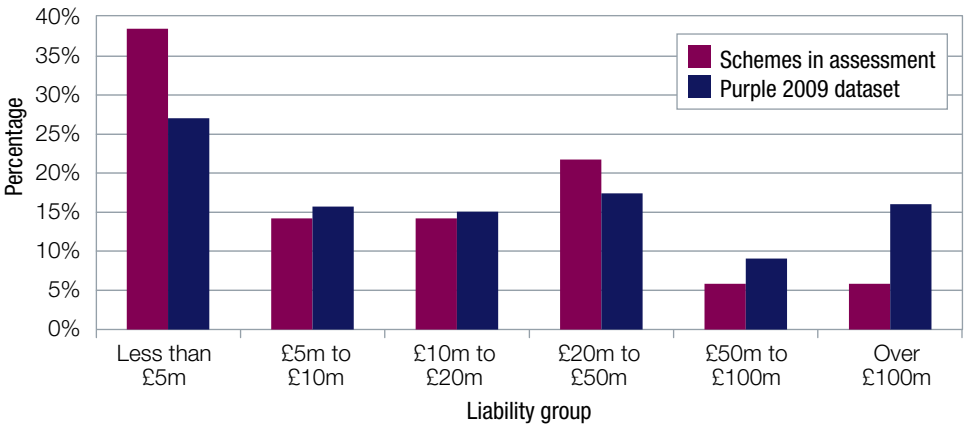
Over the year to 31 March 2009, the average quarterly deficit of schemes entering assessment was £413.4 million.

In Chart 10.2, scheme deficits are measured at the date at which schemes enter assessment. All other assets and liabilities in this Chapter have been calculated at 31 March 2009 and have been determined from the latest available valuation results and trustee reports and accounts for the schemes. As a result, these figures are indicative only and should not be regarded as the true state of funding for schemes in assessment. This will only be known at an individual scheme, section or segregated part level once the section 143 valuation (determining whether the scheme enters the PPF) has become binding.

10.3 Scheme demographics

There are some instances where an insolvency event will lead to the segregation of the scheme, where only the segregated part(s) relating to the insolvent employer(s) enter into an assessment period. For the remainder of the analysis all segregated parts of a scheme have been re-aggregated and treated as a single scheme.

Chart 10.3 | Percentage of schemes in assessment in each liability group

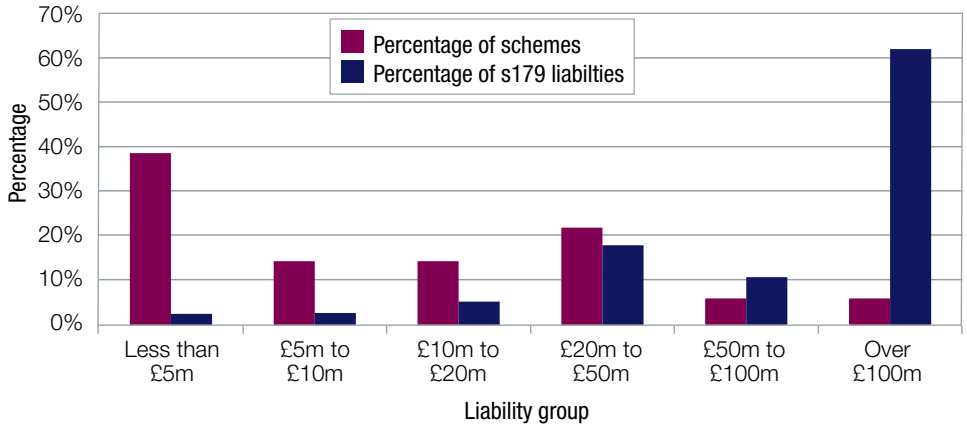


Source: PPF/The Pensions Regulator

The majority of schemes in assessment are small schemes (liabilities less than £10 million); 38 per cent of schemes (92 in total) have liabilities of less than £5 million (see Chart 10.3). This is much greater than the proportion of small schemes in the Purple 2009 dataset as a whole (27 per cent). The percentage of the schemes in assessment in the largest size category of over £100 million is just six per cent compared with the 16 per cent share of the largest schemes in the Purple 2009 sample. For schemes in assessment by asset size there is a similar picture: 49 per cent of schemes have assets of less than £5 million.

Most schemes in assessment are small schemes.

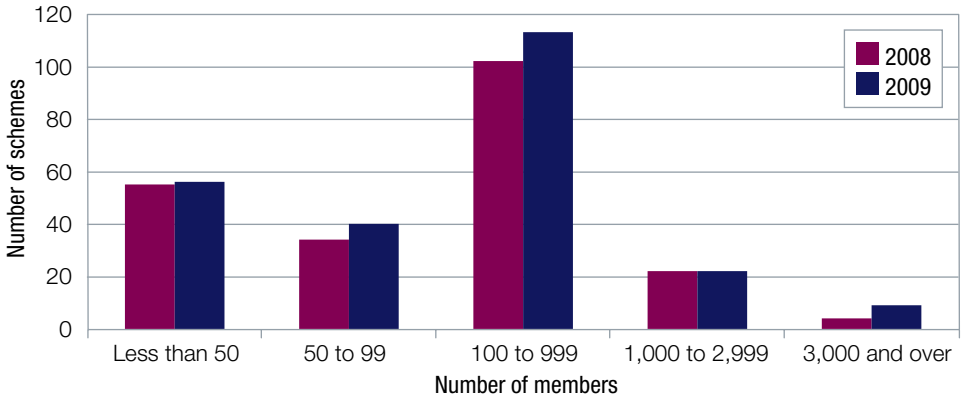
Chart 10.4 | Percentage of schemes and percentage of s179 liabilities by liability group for schemes in assessment



Source: PPF/The Pensions Regulator

The impact that these schemes will have on transferring to the PPF can be seen in Chart 10.4. The largest burden on the PPF is from the six per cent of schemes in assessment with over £100 million in liabilities. These schemes account for 56 per cent of the total deficit, up from 33 per cent in 2008, and have total liabilities of £5.8 billion. The smallest schemes make up just two per cent of the total liabilities and two per cent of total deficits of schemes in assessment, despite representing 38 per cent of the total number.

Chart 10.5 | Number of schemes in assessment by membership size

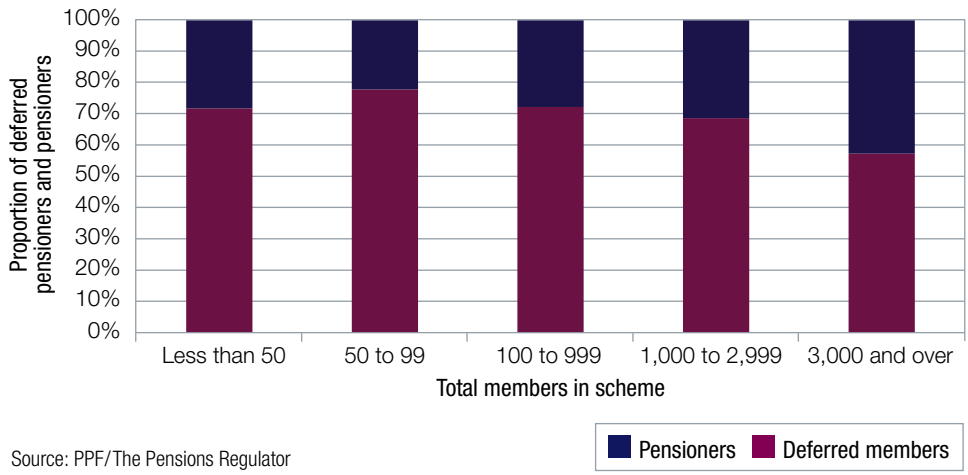


Source: PPF/The Pensions Regulator

Schemes with more than 3,000 members have the greatest proportion of pensioners.

Chart 10.5 shows that 113 out of the 240 schemes in assessment (47 per cent) are in the middle (100 to 999 members) membership size band, and that the breakdown by members follows a similar pattern to that in 2008. Only nine schemes (four per cent) in assessment at 31 March 2009 had over 3,000 members.

Chart 10.6 | Maturity of schemes in assessment by membership size*



Source: PPF/The Pensions Regulator

* For the purpose of this Chapter only pensioners and deferred members are considered. There are no active members in this dataset.

The maturity of a scheme can be defined as the proportion of the membership which relates to pensioners. The higher the proportion of pensioners, the more mature the scheme. The maturity of schemes in assessment tends to increase as size by membership increases (Chart 10.6). For schemes in assessment with over 3,000 members, 43 per cent of the members are pensioners whereas for those with between 50 and 99 members, only 22 per cent are pensioners (although for the smallest membership category the proportion of pensioners is 28 per cent). This may be a reflection of the different insurance practices of such schemes, in particular annuity purchase compared with self-insurance of pensions in payment. The maturity pattern by size was similar for schemes in assessment in Purple 2008.

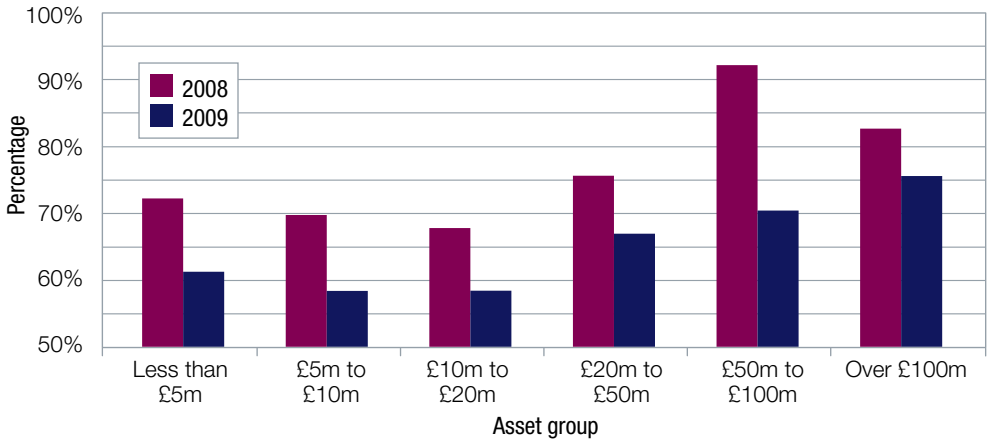
10.4 Funding level

On a s179 basis, schemes in assessment had total assets of £6.6 billion and total liabilities of £9.4 billion as at 31 March 2009, giving an aggregate deficit of £2.8 billion and funding ratio of 71 per cent[43]. The comparable figures for 2008 were £4.2 billion of assets, £5.4 billion of liabilities, an aggregate deficit of £1.2 billion and 78 per cent funding level. There were 223 schemes in assessment in deficit on a s179 basis in March 2009 and 17 in surplus. The total surplus for the schemes in assessment in surplus was £55.2 million and the total deficit for those in deficit was £2.8 billion.

As at 31 March 2009, schemes in assessment were 71 per cent funded.

The best funded schemes in assessment, in terms of average funding ratio, are in the three largest asset groups, from £20 million to £50 million, from £50 million to £100 million and over £100 million (Chart 10.7). These three groups have average funding ratios of 67 per cent, 70 per cent and 75 per cent respectively. The least well funded schemes are those in the £5 million to £10 million and £10 million to £20 million groups, which each have an average funding ratio of 58 per cent. The gap in the funding ratio between the best and the least well funded asset group is 17 percentage points. This is a similar distribution to the one seen for schemes in assessment in Purple 2008, although funding levels have fallen across each asset group. In 2008 the difference between the best and worst funded asset groups was 24 percentage points.

Chart 10.7 | Average funding level of schemes in assessment on a s179 basis by asset size

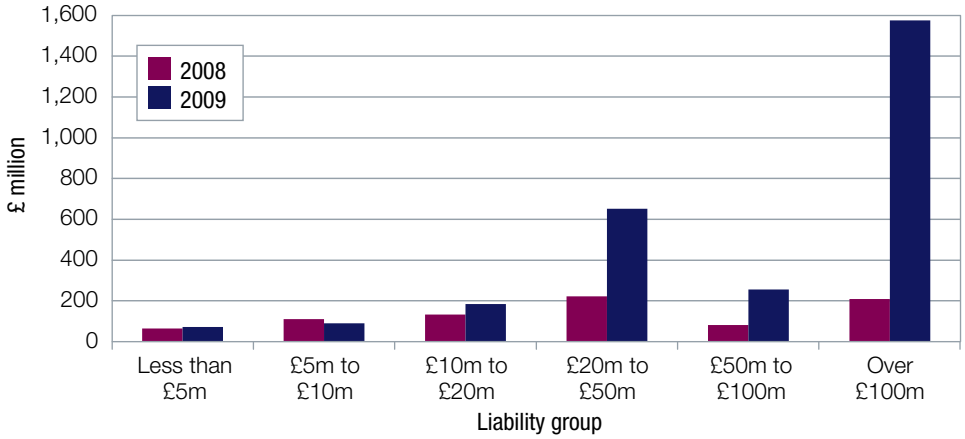


Source: PPF/The Pensions Regulator

43 Accurate figures for assets and liabilities used to calculate funding ratio (not based on the rounded figures).

If the analysis is restricted to those schemes in deficit at 31 March 2009, excluding the 17 schemes in surplus[44], then the total grouped deficit is highest across schemes in the largest size category. Schemes with liabilities of more than £100 million represent 56 per cent of the total deficit. Schemes in the smallest size category make up two per cent of the total (see Chart 10.8). Chart 10.8 shows a large increase in the deficit of schemes with liabilities over £100 million in comparison to 2008. This is due to several schemes entering assessment in the year to 31 March 2009 with large deficits.

Chart 10.8 | Total s179 deficit of schemes in assessment in deficit by liability size



Source: PPF/The Pensions Regulator

10.5 Asset allocation

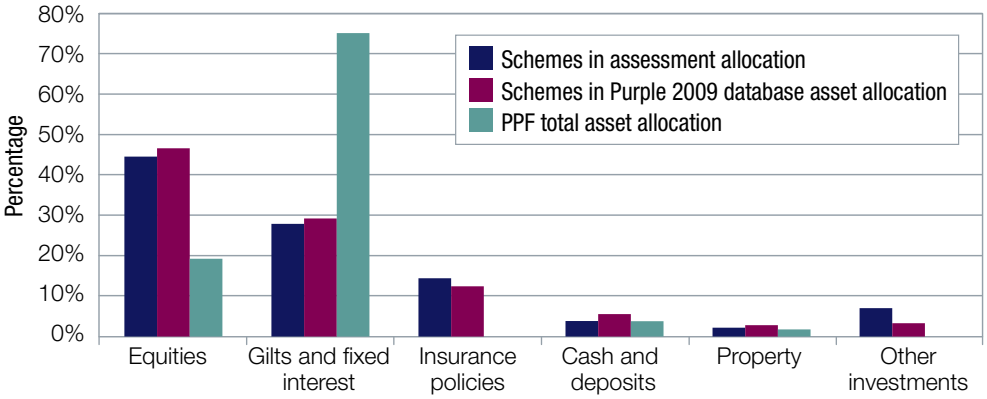
In assessing the risk posed to the PPF by the schemes in assessment it is important to consider the schemes' asset allocation. The Board of the PPF takes into account the asset allocation of schemes in assessment when monitoring the asset strategy of the PPF as a whole. When schemes transfer to the PPF, their assets are subsumed into the PPF's asset allocation (see Chart 10.9). Once in assessment, schemes tend to follow an investment strategy that is more bond-orientated.

In contrast to the typical pension fund asset allocation (see Chapter 7, Asset allocation), as at 31 March 2009, the PPF held the greatest proportion (75 per cent) of its assets in gilts and fixed interest holdings and only 19 per cent in equities. This is to ensure a low level of correlation between the PPF's assets and those of a typical pension scheme, thereby mitigating the risk of assets underperforming in times of increasing deficits and weak equity markets. The PPF's approach to asset allocation is given in the Statement of Investment Principles, which is reviewed annually.[45]

44 At the end of the assessment period, when assets and liabilities have been recalculated, if schemes can afford to secure benefits at least equal to the compensation the PPF would pay then they will not enter the PPF.

45 See http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/sip_july_2009.pdf.

Chart 10.9 | Simple averages of asset allocations prior to assessment for schemes in assessment, the Purple 2009 dataset and the PPF at 31 March 2009

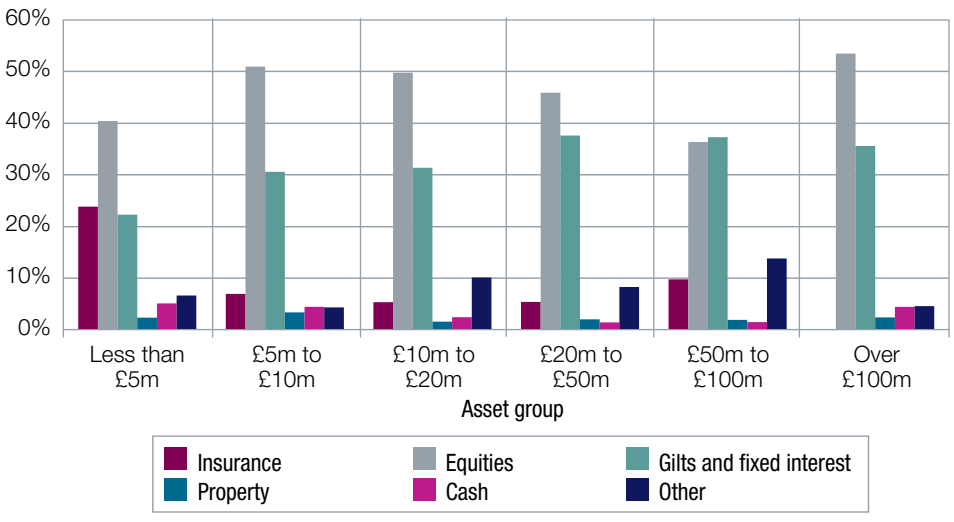


Source: PPF/The Pensions Regulator

The asset allocation for schemes in assessment is very similar to that which applies to the Purple 2009 database. The respective proportions of total assets held in equities, gilts and fixed interest, cash and deposits and property are all slightly less for schemes in assessment than in the Purple 2009 dataset. The biggest difference between the two datasets is in 'other investments'; this is 3.7 percentage points higher for schemes in assessment and makes up 7.0 per cent of total assets (3.3 per cent in Purple 2009). The asset allocation of the schemes in assessment also follows a similar pattern to that for schemes in assessment in Purple 2008.

Chart 10.10 shows the asset allocation of schemes in assessment by asset size. There are some differences from last year. There is a shift away from gilts and fixed interest assets and towards equities in the biggest two asset groups. However, similar to last year the proportion of gilts and fixed interest assets increases as scheme size increases in the smallest four asset groups.

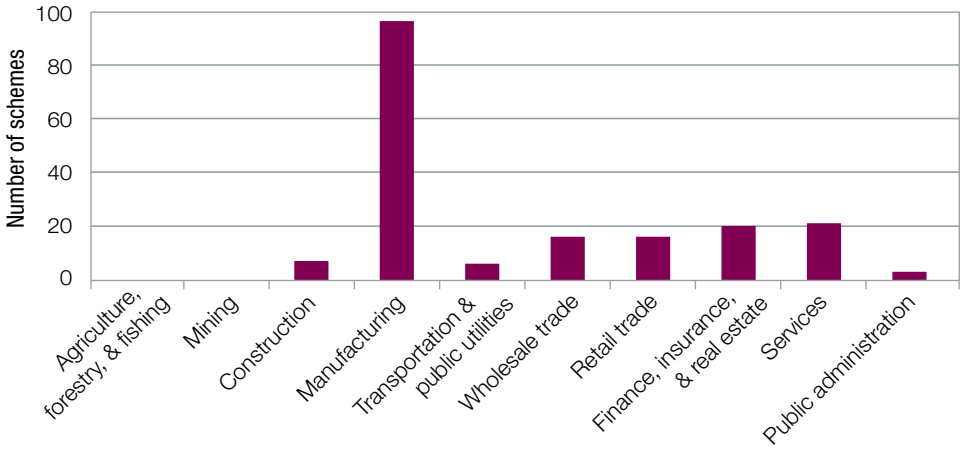
Chart 10.10 | Asset allocation of schemes in assessment by asset size



Source: PPF/The Pensions Regulator

10.6 Industry classification

Chart 10.11 | Distribution of schemes in assessment by industry classification



Source: PPF/The Pensions Regulator

Of the 240 schemes in assessment, industry information is available for 185 schemes. These schemes are mapped from their US 1972 standard industrial classification (SIC) codes. In Chart 10.11 it can be seen that 96 of the sponsors are in manufacturing, representing 51.9 per cent of the schemes in assessment where industry information is available. This is around 20 percentage points higher than the proportion of manufacturing companies in the Purple 2009 dataset (31.4 per cent). After manufacturing, services and the finance, insurance and real estate industries had the largest share of schemes in assessment, with 11.4 per cent and 10.8 per cent respectively.

Table 10.1 | Distribution of schemes in assessment by industry classification

Industry	Number of schemes per industry in assessment	Percentage of schemes (schemes in assessment)	Percentage of schemes (schemes in assessment with industry data available)	Percentage of schemes per industry (Purple 2009 dataset)
Agricultural production	-	-	-	1.0%
Communications	-	-	-	0.7%
Construction	7	2.9%	3.8%	3.3%
Finance, Insurance and Real Estate	20	8.3%	10.8%	16.8%
Manufacturing	96	40.0%	51.9%	31.4%
Mining	-	-	-	0.8%
Public administration	3	1.3%	1.6%	0.5%
Retail trade	16	6.7%	8.6%	5.5%
Services	21	8.8%	11.4%	23.4%
Transportation	6	2.5%	3.2%	4.7%
Utilities	-	-	-	1.2%
Wholesale trade	16	6.7%	8.6%	9.4%
Unknown	55	22.9%	-	1.4%

Source: PPF/The Pensions Regulator

11

PPF Compensation

The PPF paid out total compensation of £37.6 million in 2008/09, up from £17.3 million in 2007/08.

At 31 March 2009, 12,723 members were in receipt of PPF compensation.

11.1 Summary

- When a scheme transfers into the Pensions Protection Fund (PPF), the PPF pays compensation of up to 90 per cent of scheme pension (subject to a compensation cap) to members of eligible defined benefit (DB) schemes who are yet to reach their normal retirement age (NRA). The PPF will generally pay compensation equivalent to 100 per cent of scheme pension to those already over their NRA.
- The PPF made its first compensation payments in the 2006/07 financial year following the first scheme transfer in November 2006. A total of £1.4 million was paid out in 2006/07, rising to £17.3 million in 2007/08 and £37.6 million in 2008/09.
- At 31 March 2009, 12,723 members were in receipt of PPF compensation, up from 3,596 the previous year. Average compensation in payment stood at £3,765 a year. The number of members with compensation not yet in payment (deferred members) as at 31 March 2009 totalled 18,009. For these members, the average compensation accrued was £3,654 a year.
- At 31 March 2009, males constituted 78 per cent of pensioner and deferred members, down from 82 per cent the previous year.[46]
- Spouses and other dependants account for 15 per cent of those currently in receipt of compensation, receiving 10 per cent of compensation in payment.
- More than 75 per cent of compensation is attributable to former employees of the manufacturing sector.
- As of 31 March 2009, 29 pensioners were affected by the compensation cap (£28,742.69 a year for those aged 65 in 2009/10 after the 90 per cent scaling).

11.2 Introduction

The purpose of the PPF is to provide compensation to members of eligible DB pension schemes in cases where their employer experiences a qualifying insolvency event and there are insufficient scheme assets to secure benefits at PPF levels of compensation. The transfer of the first scheme took place in November 2006, leading to the first compensation payments being made in the 2006/07 financial year. A total of £1.4 million was paid out in 2006/07 by the PPF, rising to £17.3 million in 2007/08 and £37.6 million in 2008/09.

In the event that an eligible DB pension scheme transfers into the PPF, compensation will be provided to scheme members on the following basis:

46 Unless otherwise stated, totals and averages relating to pensioners include dependants.

- 100 per cent of scheme pension is provided to scheme members that are over their NRA at the time the scheme enters assessment.
- For members below their NRA at the date of assessment, the PPF provides up to 90 per cent of scheme benefits. This compensation is subject to an overall cap, which, as at April 2009, stood at £28,742.69 a year for age 65 allowing for the 90 per cent scaling. A lower cap is applied in cases where compensation is drawn before this age. Conversely, the cap is higher if compensation payments commence after 65.

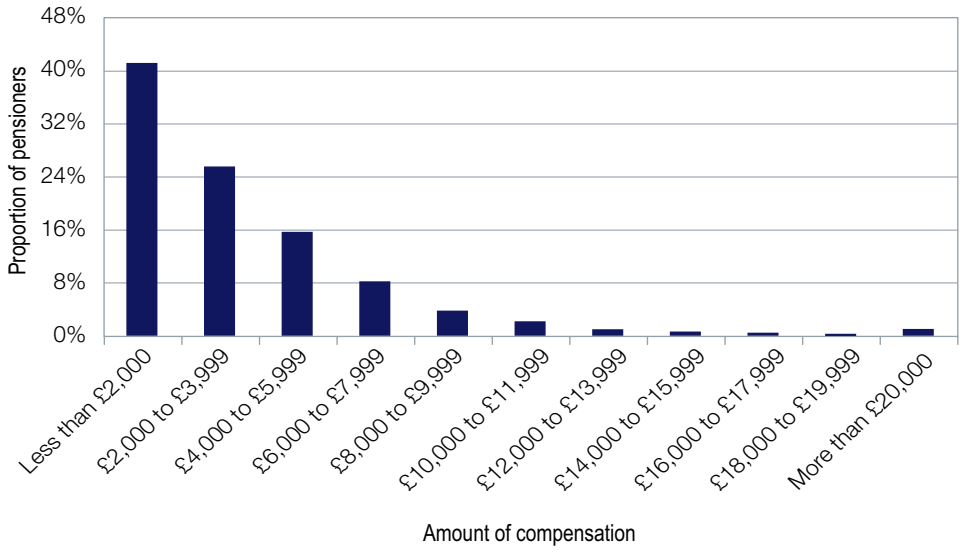
In both cases, only compensation accrued on or after 6 April 1997 is subject to RPI indexation (capped at 2.5 per cent a year) once it has come into payment.

The following discussion analyses the annual rate of compensation attributable to deferred members (those having accrued, but not yet in receipt of, compensation) and current pensioners as at 31 March 2009 in a number of ways, including by age, gender and industry.

11.3 Distribution of compensation

Charts 11.1 and 11.2 show that the distributions of pensioner and deferred members by amount of compensation follow a similar pattern. In both cases, between 40 and 45 per cent of members receive compensation of less than £2,000 a year. The distribution tails off as higher compensation brackets are considered. The increase over last year in the proportion of members in lower compensation brackets is attributable to lower compensation levels among members transferred to the PPF since 31 March 2008.[47]

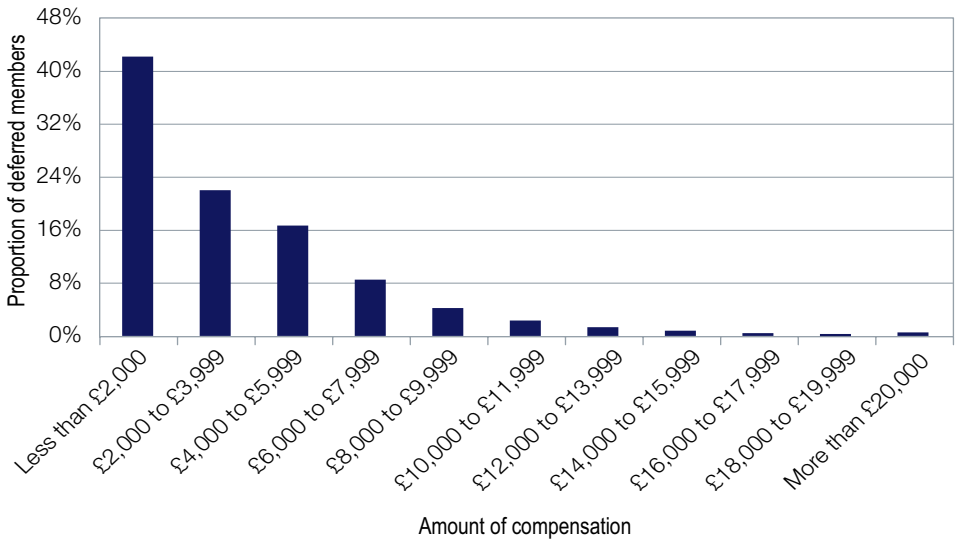
Chart 11.1 | Distribution of pensioners by amount of compensation



Source: PPF/The Pensions Regulator

47 The equivalent charts for 2008 are shown on pages 113-114, Purple 2008.

Chart 11.2 | Distribution of deferred members by amount of compensation

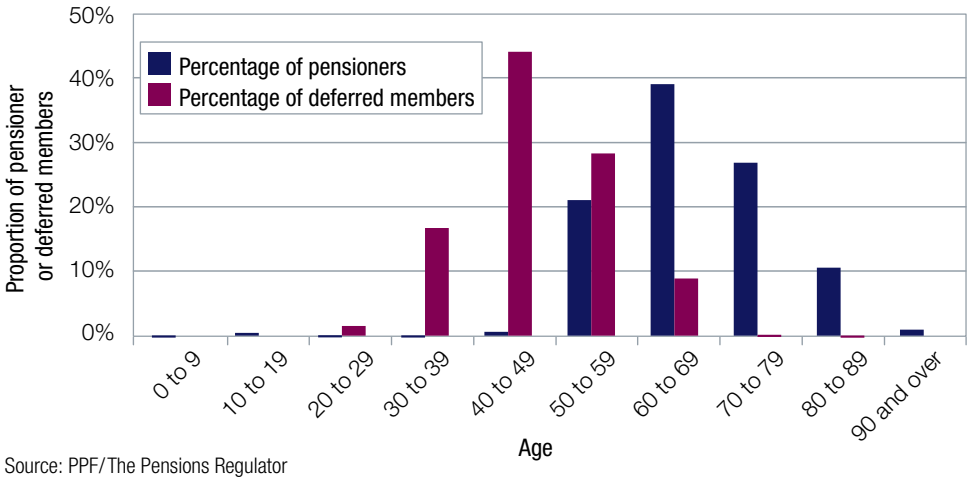


Source: PPF/The Pensions Regulator

11.4 Age and gender

Chart 11.3 shows the distribution of pensioners and deferred members by age. As would be expected, pensioners are concentrated in the 50 to 79 year age brackets. Compensation in the zero to 29 year brackets consists of payments to spouses and dependants.

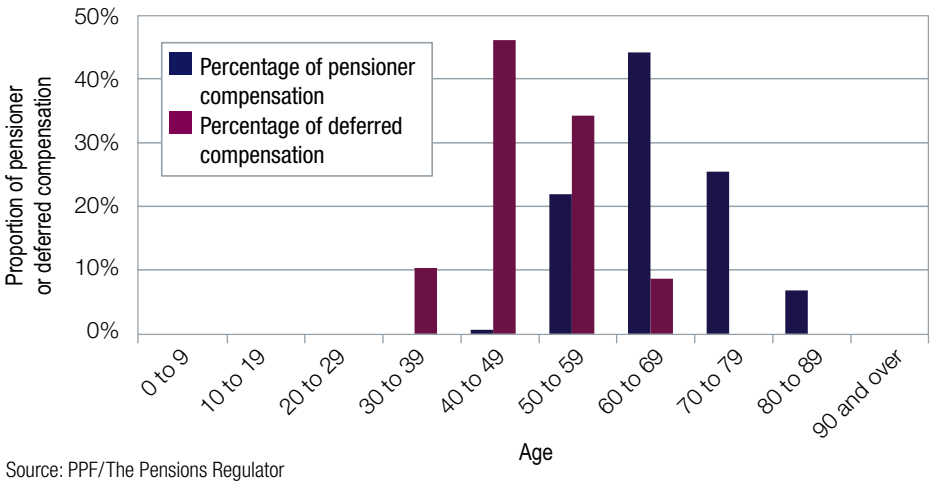
Chart 11.3 | Distribution of pensioner and deferred members by age



Source: PPF/The Pensions Regulator

Chart 11.4 shows the distribution of pensioner and deferred compensation by age. It closely follows that observed in Chart 11.3.

Chart 11.4 | Distribution of pensioner and deferred compensation by age



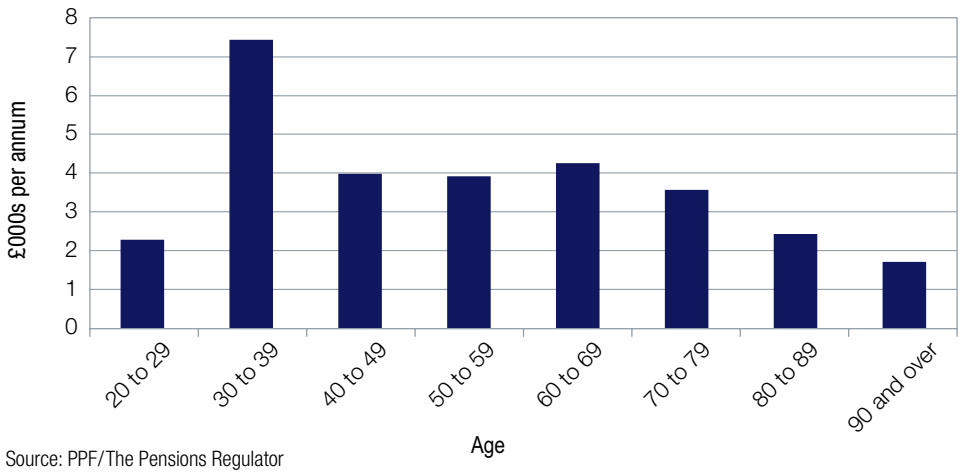
Source: PPF/The Pensions Regulator

Average compensation in payment at 31 March 2009 stood at £3,765 a year. For deferred members, average compensation accrued to 31 March 2008 was £3,654 a year.

Charts 11.5a and 11.5b show the levels of average compensation for pensioners and deferred members by age. Chart 11.5a only includes member pensioners and excludes dependants and spouses. Aside from the spike in the 30 to 39 age bracket (due to a small sample), the picture in 11.5a is as might be expected, with average compensation peaking between 60 and 69. Average compensation accrued by deferred members peaks between 50 and 59, as shown in Chart 11.5b. Note that deferred members over the age of 70 have typically accrued relatively small amounts of compensation. The delay in payment for these is often attributable to difficulties in locating these members or obtaining current bank account details prior to beginning to pay compensation.

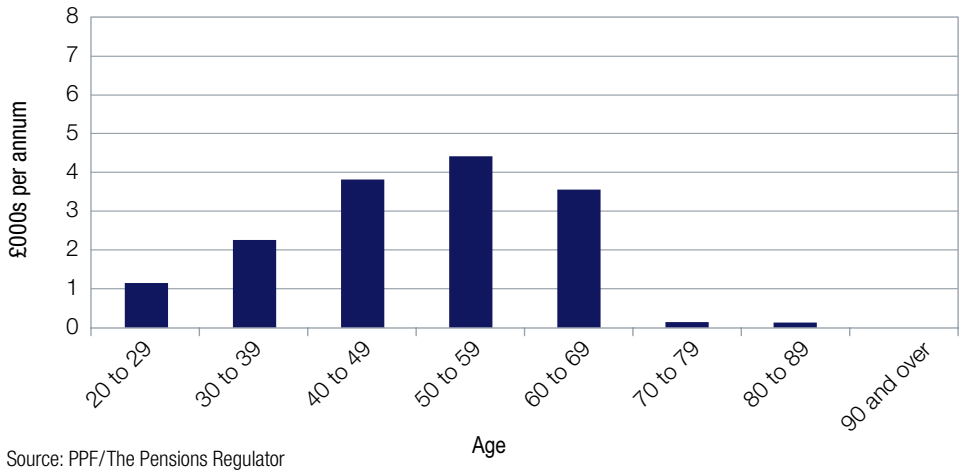
Average annual compensation paid to current pensioners stood at £3,765 a year at 31 March 2009.

Chart 11.5a | Average pensioner compensation by age



Source: PPF/The Pensions Regulator

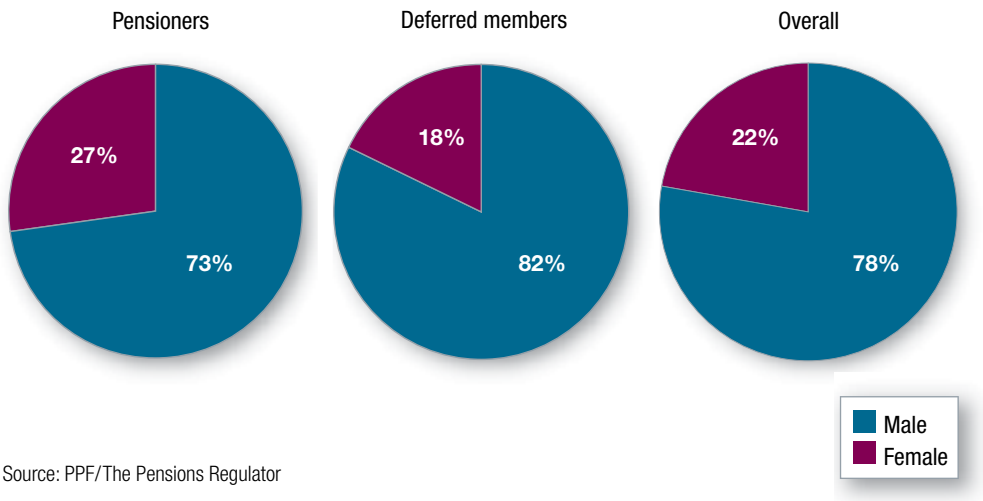
Chart 11.5b | Average deferred member compensation by age



Source: PPF/The Pensions Regulator

As Chart 11.6 shows, males greatly outnumber females in both the pensioner and deferred categories. Overall, males make up 78 per cent of members of transferred schemes (down from 82 per cent last year). Males receive 84 per cent of pensioner compensation and have accrued 90 per cent of deferred compensation. Average male compensation stands at £4,358 a year for pensioners and £3,988 a year for deferred members. This is around double the £2,178 and £2,090 a year average compensation paid to (and accrued by) female pensioners and female deferred members respectively.

Chart 11.6 | Gender composition of pensioners and deferred members



Source: PPF/The Pensions Regulator

11.5 Spouses and other dependants

On the death of a scheme member, compensation payments may be made to a spouse, partner or child dependant depending on the rules of the former scheme. Table 11.1 shows the proportion of dependants and members within the PPF pensioner population. Dependants constitute only a minor fraction of total pensioners and compensation.

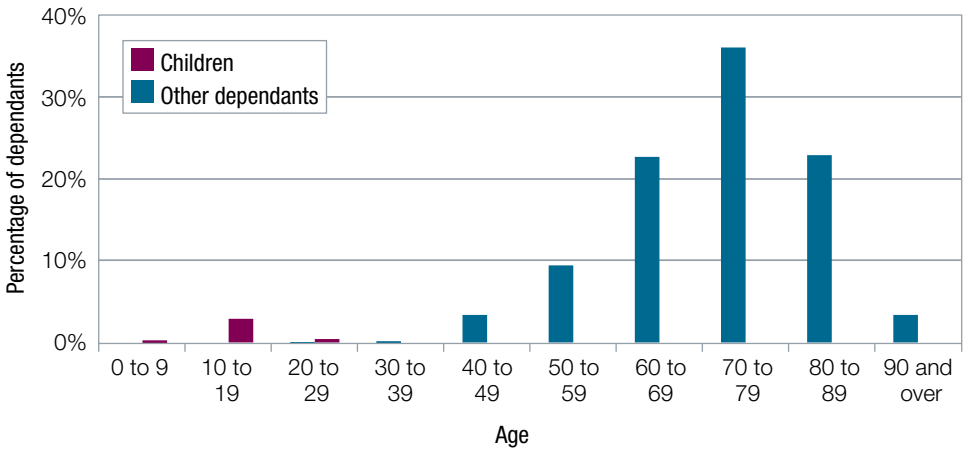
Spouses and other dependants account for 15 per cent of those currently in receipt of compensation.

Table 11.1 | Proportions of dependants and members within the PPF current pensioner population

	Number within pensioner population	Percentage of total population	Compensation (£000s, pa)	Percentage of total compensation
Dependants	1,931	15%	£4,603	10%
Members	10,792	85%	£43,297	90%
Total	12,723	100%	£47,900	100%

Chart 11.7 shows the distribution of children and other dependants by age. Children are concentrated in the 10 to 19 age bracket while the majority of other dependants (largely spouses, unmarried partners and civil partners) are between 60 and 89 years of age. The distribution of dependants shows that dependants tend to be older than pensioner members (see Chart 11.3).

Chart 11.7 | Distribution of spouses and other dependants by age

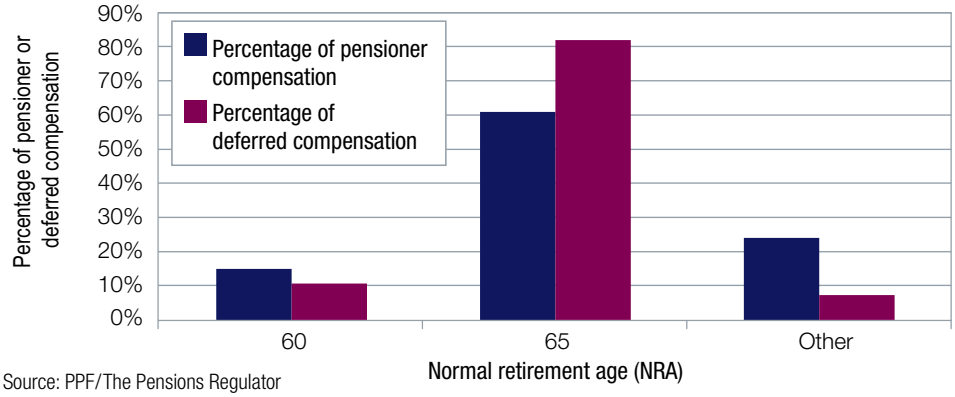


Source: PPF/The Pensions Regulator

11.6 Normal retirement age

Each tranche of compensation for pensioners and deferred members has its own NRA. The NRA specifies the age at which members may draw their compensation without it being reduced for early payment. Chart 11.8 shows the distribution of compensation by NRA. Some members have several tranches of compensation with different NRAs. Chart 11.8 classifies each member by the NRA of their largest tranche.

Chart 11.8 | Distribution of compensation by normal retirement age (NRA)



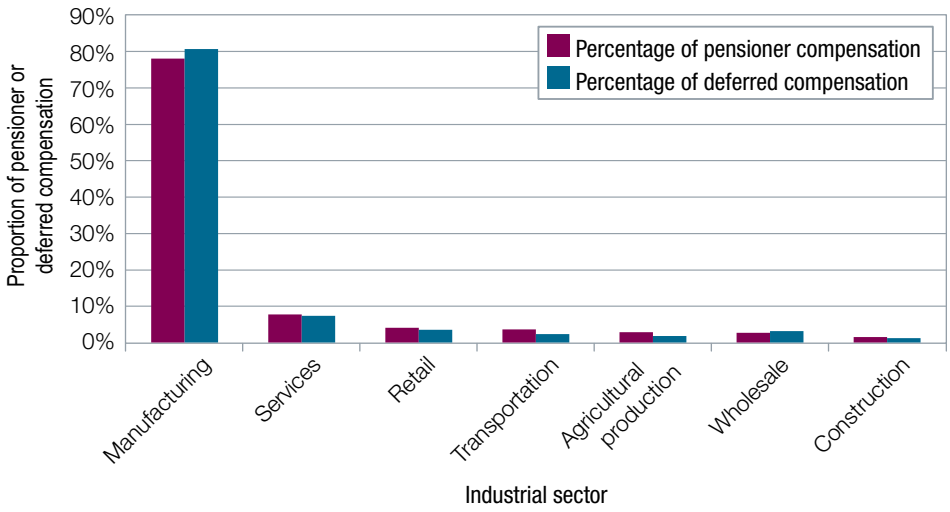
Source: PPF/The Pensions Regulator

11.7 Industry

Chart 11.9 shows the division of pensioner and deferred member compensation by industrial sector, as defined by the industry of his or her former employer. The vast majority of PPF compensation is directed towards former employees of the manufacturing sector. This chiefly reflects the disproportionately large manufacturing constituency within the PPF sponsor universe.

More than 75 per cent of compensation is attributable to former employees of the manufacturing sector.

Chart 11.9 | Pensioner and deferred member compensation by industrial sector



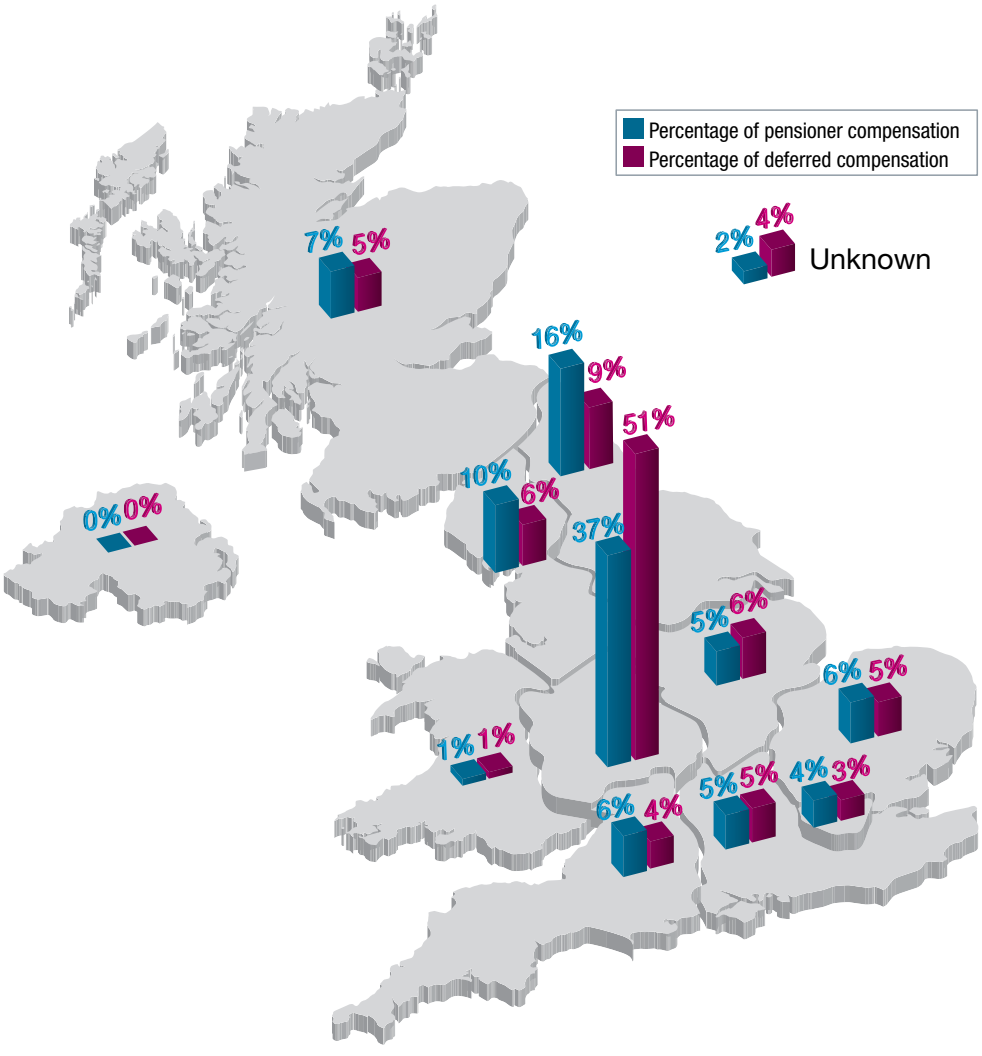
Source: PPF/The Pensions Regulator

11.8 Geography

Chart 11.10 shows the geographical distribution of pensioner and deferred member compensation by member location. The West Midlands clearly dominates as a destination for PPF compensation, due primarily to the concentration of manufacturing activity in the region.

The West Midlands is the destination for more than 35 per cent of compensation in payment and more than 50 per cent of deferred compensation.

Chart 11.10 | Pensioner and deferred member compensation by UK region



Source: PPF/The Pensions Regulator

11.9 Period of service

Compensation accrued on or after 6 April 1997 is subject to RPI indexation in payment capped at a rate of 2.5 per cent a year. Compensation accrued prior to this point is not subject to indexation. Table 11.2 shows the levels of PPF compensation for pensioners and deferred members by date of accrual.

Table 11.2 | Pre and post April 1997 compensation for pensioners and deferred members

	Pensioners		Deferred members	
	Compensation (£000s, pa)	Percentage of total	Compensation (£000s, pa)	Percentage of total
Pre April 1997	£39,180	82%	£39,484	60%
Post April 1997	£8,721	18%	£26,328	40%
Total	£47,901	100%	£65,812	100%

Table 11.3 shows the value of PPF liabilities to pensioners and deferred members by date of accrual. Note that for pensioners the proportion of pre-1997 compensation and liabilities far exceeds the respective post-1997 proportions, but the figures are much closer for deferred members. This is to be expected, given that pensioners are more likely to have accrued compensation in respect of service before 1997.

Table 11.3 | Value of liabilities* attributable to pre and post April 1997 compensation for pensioners and deferred members

	Pensioners		Deferred members	
	Liabilities (£000s)	Percentage of total	Liabilities (£000s)	Percentage of total
Pre April 1997	£557,032	75%	£536,197	55%
Post April 1997	£187,526	25%	£447,236	45%
Total	£744,558	100%	£983,433	100%

* On the basis used for the PPF's Annual Report and Accounts 2008/09.

11.10 Compensation cap

For pension scheme members below their NRA as the scheme enters assessment, compensation is subject to the compensation cap. The level of the cap is determined by the age at which compensation comes into payment (or age at assessment date where pension is already in payment). As of April 2009, the cap for members first drawing PPF compensation at age 65 is £28,742.69 a year after the 90 per cent scaling. PPF compensation coming into payment at a later age is subject to a higher cap (eg £32,489.72 a year at 70) while that drawn earlier is capped at a lower level (eg £26,032.19 a year at 60). Only 29 members currently in receipt of compensation were affected by the cap as of 31 March 2009. This represents 0.23 per cent of all those receiving compensation.

As at 31 March 2009, only 29 members were affected by the compensation cap.

12 Risk reduction

12.1 Summary

- The total number of contingent assets (CAs) in place has risen by 30 per cent, from 452 for the 2008/09 levy year to 587 for 2009/10.
- The CAs in place for 2009/10 reduced the respective schemes' levies by a total of around £100 million.
- Schemes in the Purple 2009 dataset (excluding those schemes which were in a PPF assessment period as at 31 March 2009) had certified approximately £26.5 billion of deficit reduction contributions (DRCs) to reduce deficits by 7 April 2009.
- DRC certificates were submitted by schemes to the PPF in order to mitigate their levy bill by enabling a more up-to-date assessment of the schemes' funding positions.
- The DRCs were not only paid by companies sponsoring the largest schemes; some 50 per cent of the £26.5 billion was paid by employers sponsoring schemes with fewer than 10,000 members.
- MQ5 data from the Office for National Statistics (ONS) covering 340 large pension schemes, including 100 local authorities, suggest that special contributions have climbed slightly in 2009 following a sharp decline in 2008 from the levels seen in 2006 and 2007.
- The scheme funding requirements introduced by the Pensions Act 2004 (and regulated by the Pensions Regulator) continue to play a key role in defined benefit (DB) risk reduction and this is taken into account in the Pension Protection Fund's (PPF's) long-term risk monitoring.
- Schemes continue to reduce investment risk through diversification (with a greater proportion of schemes investing in alternative assets), by shifting from equity to fixed income securities, and through the use of derivatives to hedge inflation and interest rate risk.
- Liability-driven investment (LDI) strategies continue to take root. The National Association of Pension Funds (NAPF) survey data indicate that 26 per cent of schemes had implemented an LDI strategy by 2009, up from 23 per cent in 2008.
- Quarterly surveys by F&C Asset Management suggest that while inflation hedging activity has grown sharply in the second and third quarters of 2009, interest rate hedging has declined.

12.2 Contingent assets

A CA is one that will produce cash for a pension scheme if certain events occur, in particular when the sponsoring employer experiences an insolvency event. For the purpose of the 2009/10 risk-based levy calculation, the Board of the Pension Protection Fund (PPF) decided only to take account of those CAs for which all required documentation was submitted at or before 5 pm on 31 March 2009. The PPF recognises three types of CAs:

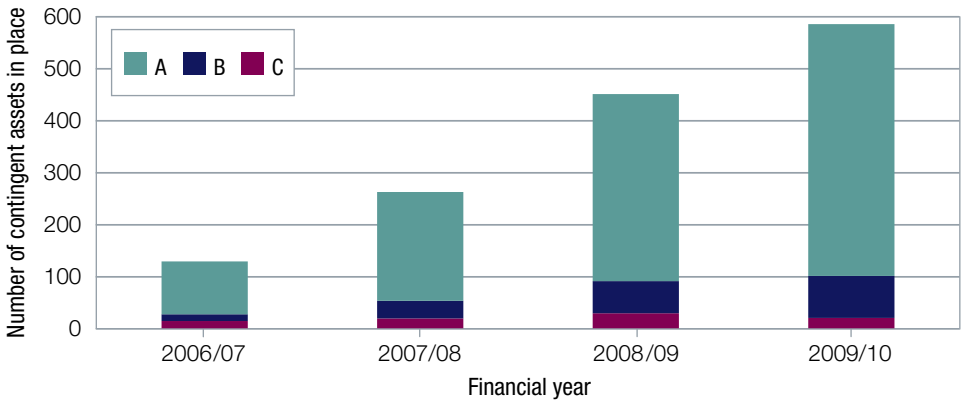
- Type A CAs are guarantees given by the parent/group companies and their undertakings. Such guarantees generally consist of an obligation for the guarantor, if called upon, to fund the scheme to a pre-arranged percentage of liabilities;
- Type B CAs comprise security over holdings of cash, real estate and/or securities;
- Type C CAs consist of letters of credit and bank guarantees.

The three types of CA affect a scheme's risk-based levy in different ways. For example, if a scheme puts in place a Type A CA which guarantees at least 105 per cent of section 179 liabilities (or full section 75 debt), the insolvency score of the guarantor is substituted for the insolvency score of the scheme's employer(s) in the risk-based levy calculation. Assuming that the insolvency score of the guarantor is stronger than that of the scheme's employer(s), the substitution will reduce the scheme's risk-based levy. The formula gives rise to intermediate calibrations for other guarantee formats relating to Type A CAs. The value of Type B and C CAs are added to the value of scheme assets where applicable, reducing the scheme's underfunding risk and hence lowering its risk-based levy.

Chart 12.1 shows the number of PPF-compliant CAs in place for each levy year. Total CAs in place rose by 30 per cent from 452 for the 2008/09 levy year to 587 for 2009/10. While the principal driver will be improving security for schemes, the growth in CAs is no doubt strongly influenced by the PPF levy, as CAs have the potential to substantially reduce a scheme's bill. The 587 CAs in place for 2009/10 reduced the respective schemes' levies by around £100 million. There is a general upward trend in the number of type A and B CAs. However, the PPF regime anticipates that CAs of all types will be removed where scheme funding improves. This is visible in the net reduction in Type C CAs from 2008/09 to 2009/10.

The total number of contingent assets in place rose by 30 per cent from 452 for 2008/09 to 587 for 2009/10.

Chart 12.1 | Contingent assets by type*



Source: PPF/The Pensions Regulator

*These figures are approximations only.

Schemes in the Purple 2009 dataset had certified approximately £26.5 billion of deficit reduction contributions by 7 April 2009.

12.3 Deficit reduction payments

Schemes in the Purple 2009 dataset (excluding those schemes which were in a PPF assessment period as at 31 March 2009) had certified approximately £26.5 billion of DRCs to reduce deficits by 7 April 2009. DRC certificates were submitted by schemes in order to mitigate their levy bill by enabling a more up-to-date assessment of the scheme funding position. The DRCs were not only paid by companies sponsoring the largest schemes; some 50 per cent of the £26.5 billion was paid by employers sponsoring schemes with fewer than 10,000 members.

At any point in time, only payments certified after the most recent actuarial valuation are counted as DRCs. Once a new valuation is completed, DRCs are subsumed as part of the scheme's asset values. The estimates of DRCs are, therefore, sensitive not only to the volumes of certificates submitted but also to changes in the dates of the most recent valuations. For example, consider two schemes where the sponsoring employer had made the same special contributions between 2006 and 2009. If the first sponsoring company had a relatively old valuation while the second had a recent valuation, then the certified DRCs would be larger for the first than the second.

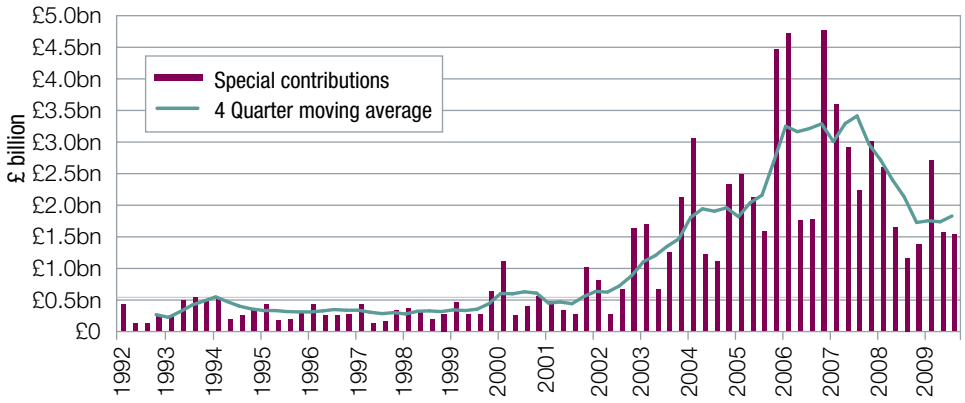
12.4 Special contributions

A time series of special contributions is produced by the ONS based on the MQ5 dataset (Chart 12.2). This dataset is constructed from a survey of 340 pension schemes, covering both private and public sponsors and potentially including defined contribution as well as defined benefit schemes[48].

The MQ5 data show that special contributions have increased significantly since 2002 as schemes attempted to repair their deficits. There was a further big increase after 2004, possibly reflecting requirements set out in the Pensions Act 2004 for schemes to set technical provisions and draw up recovery plans. Efforts to reduce PPF levy bills may also have played a role.

Since late 2007, this trend has been reversed. The slowing in growth of special contributions through 2006 and early 2007 can be viewed, at least in part, as a response to successful deficit reduction on the back of strong performance in equity markets. Weakening corporate cash flows set against a deteriorating economic environment post mid-2007 contributed to a marked decline in special contributions. The four-quarter moving average, a useful measure in respect of the significant seasonal variation in contributions, dropped by 50 per cent from a peak of £3.4 billion in the third quarter of 2007 to £1.7 billion in the fourth quarter of 2008. Some improvement in contribution activity has been observed in 2009.

Chart 12.2 | Special contributions



Source: Investment by Insurance Companies, Pension Funds and Trusts, Office for National Statistics'

48 See Chapter 7, Asset allocation for more detail on the MQ5 sample.

12.5 The scheme funding regime

The scheme funding requirements introduced by the Pensions Act 2004 (and regulated by the Pensions Regulator) continue to play a key role in DB risk reduction. Trustees are required to obtain actuarial valuations of their scheme at least every three years, and they must put in place a recovery plan showing how any funding shortfall will be eliminated. This plan must be agreed with the sponsoring employer.

The regulator is sent the details of the recovery plan which may be investigated by the regulator if it "triggers" on various criteria such as its length being greater than 10 years. The subsequent discussion between the regulator and the other parties may result in the recovery plan being amended.

The recovery plans have to be revisited every three years but the plans can be renegotiated earlier if, for example, the sponsoring employer is having difficulty making the agreed contributions because of serious deterioration in its finances. In this example, recovery plan payments are likely to be renegotiated downwards. Renegotiation can also lead to increased recovery plan payments, particularly when sponsors are adjudged to have undercontributed despite being financially strong.

The regulator's recently published 'Scheme Funding: An analysis of recovery plans' is an overview of recovery plans received by the regulator in respect of the first triennial cycle of the scheme funding regime[49]. The recovery plan data are divided into three tranches based on the valuation effective dates of the recovery plans for dates from 22 September 2005 to 21 September 2008. The latest tranche of plans was agreed in more turbulent economic times than those applicable to the first two tranches, although the full impact of recession will only become visible in the next edition. The key findings include:

- A reduction in technical provisions relative to s179 liabilities, from 119 per cent for tranche 2 valuations to 113 per cent for tranche 3 valuations. The average technical provisions funding level also reduced, from 90 per cent for tranche 2 valuations to 85 per cent for tranche 3 valuations.
- An increase in recovery plan lengths and back-end loading. Weighted by technical provisions, the average recovery plan length increased from 6.2 years for tranche 2 to 8.2 years for tranche 3. The unweighted average increased from 7.3 years for tranche 2 to 8.0 years for tranche 3.
- An increase in the mean effective single discount rate adopted for recovery plans in tranche 3 compared to tranche 2. This reflects an increasing reliance on future investment returns to clear funding deficits.
- 60 per cent of tranche 3 recovery plans triggered, compared with 70 per cent and 52 per cent in tranches 1 and 2 respectively.
- From tranche 2 to tranche 3, the proportion of recovery plans that triggered on technical provisions did not change materially. This reflects in part technical factors affecting the trigger calculation.
- From tranche 2 to tranche 3, the proportion of recovery plans that triggered on the recovery plan increased. This reflects the increase in recovery plan lengths, back-end loading and underlying discount rates mentioned above.

49 For more information, see http://www.thepensionsregulator.gov.uk/scheme-funding-analysis-2009.pdf.

- Improved mortality assumptions over the last tranche. Schemes moved towards the use of baseline mortality assumptions which reflect more up-to-date mortality experience, in combination with adjustments which allow for future improvements and an underpin. Average assumed expected age at death for a 65-year old male increased from 86.1 to 86.4 for current pensioners. For future male pensioners currently aged 45, the average assumed expected age at death increased from 87.7 to 88.3.

The PPF uses this information as input into runs of the Long-Term Risk Model (LTRM).[50]

12.6 Asset allocation

Schemes can reduce the risk of developing a deficit by increasing their portfolio diversity and shifting their investment into less volatile asset classes. The data from scheme returns together with the MQ5 data from the ONS (discussed in detail in Chapter 7, Asset allocation) suggest that schemes have pursued both of these strategies over recent years.

Alternative asset classes have become more widely held since 2003, helping to improve the diversity of scheme portfolios. The latest Purple dataset shows the share of other investments to have increased to 6.0 per cent, up from 3.8 per cent in the extended 2008 dataset and 2.5 per cent in the equivalent for 2007. Twenty per cent of the Purple 2009 schemes invest a share of their assets in the 'other' asset category, up from 17 per cent in the extended 2007 dataset. In support of this, a 2009 survey of 245 defined benefit pension schemes by the National Association of Pension Funds (NAPF) suggests that 28 per cent of defined benefit schemes now invest in alternative assets, compared with 18 per cent in 2007.[51]

Portfolio diversity has also been improved by investment trends within the equity and fixed income asset classes (see Chapter 7, Asset allocation). Schemes have become less reliant on the UK market for their equity investments, increasingly channelling such funds abroad. Simultaneously, fixed income investment has become less focused on UK gilts due to diversification into corporate paper.

There also exists evidence of de-risking, with MQ5 data showing a long-term investment trend away from equities and towards gilt and fixed income holdings. As discussed in Chapter 7, equity investment accounted for 61 per cent of scheme assets in Purple 2006, falling to 46 per cent in 2009. The proportion of scheme assets invested in gilts and fixed income rose from 28 per cent to 37 per cent over the same period. Market turbulence in the wake of the onset of the financial stress in summer 2007 appears to have added impetus to this trend. In both the equity and fixed income cases, a large part of the total shift occurred between 2007 and 2009. Unfortunately, the data is unable to shed light on the extent to which this acceleration reflects strategic asset allocation decisions as opposed to the general decline in equity prices.

MQ5 data continue to suggest that schemes investment allocations are becoming more diverse and less weighted towards volatile assets.

50 More detail on this model and its use by the PPF is provided in Chapter 8, Risk developments.

51 'NAPF Annual Survey 2009', carried out between June and August 2009.

12.7 Liability Driven Investment

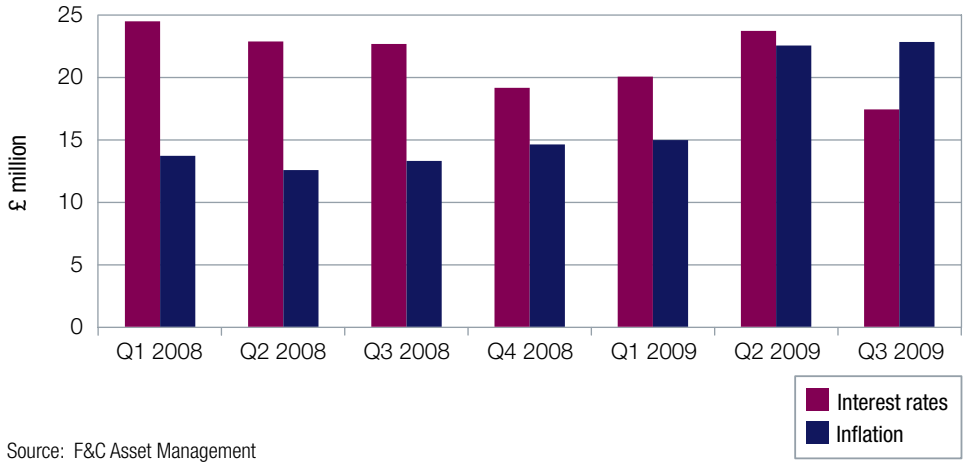
Another notable trend in pension scheme investment is the increasing popularity of liability driven investment (LDI) strategies. LDI is interpreted differently by different schemes. For example, for some, LDI is taken to refer to a wholesale shift into fixed income assets, while for others it is interpreted as an intentional approach to de-risking as schemes become more mature. Broadly speaking, LDI can be defined as a strategy whereby a scheme constructs its investment portfolio with some consideration for the nature of its liabilities. Such strategies typically rely on fixed income and derivative products for the purposes of hedging inflation and interest rate risk.

The 2009 NAPF survey reports that 26 per cent of their sample of 245 schemes had implemented an LDI strategy during or before 2009, up from 23 per cent the previous year. Forty-five per cent of schemes have considered the option of implementing an LDI strategy, up from 41 per cent in 2008.

Survey findings suggest that LDI strategies continue to grow in popularity.

F&C Asset Management conducts a quarterly survey of liability hedging activity at derivatives trading desks of major investment banks. Results for Q3 2009 suggest that pension schemes are accelerating inflation hedging activity while reducing demand for protection against falling interest rates[50]. These trends are shown in Charts 12.3 and 12.4. The quarterly volume of inflation risk traded rose 72 per cent from £13.3 million in Q3 2008 to £22.9 million in Q3 2009. The quarterly volume of interest rate risk traded fell 23 per cent over the same period, from £22.7 million to £17.5 million. F&C attribute these trends to expectations of rising inflation and interest rates.

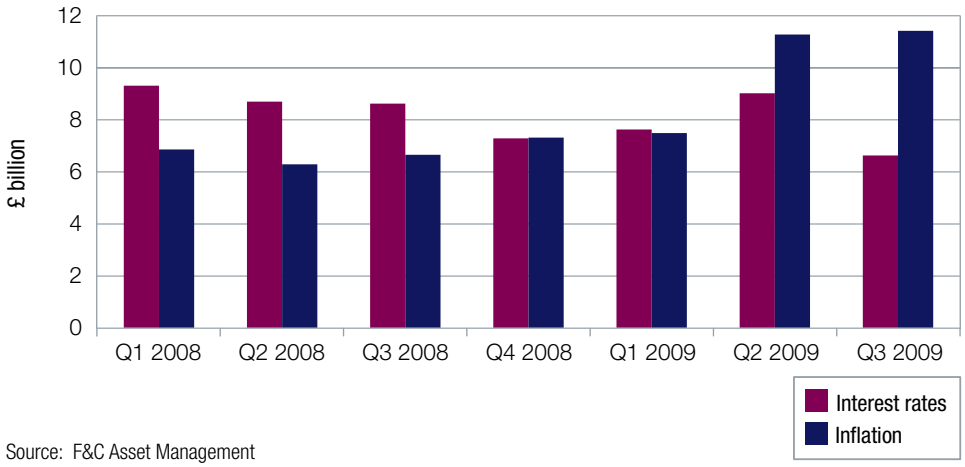
Chart 12.3 | Inflation and interest risk traded for liability hedging purposes



Source: F&C Asset Management

52 'LDI Monthly Bulletin', F&C Asset Management, November 2009

Chart 12.4 | Total estimated liabilities hedged*



Source: F&C Asset Management

* Total liabilities hedged are based on economic risk hedged by pension funds, where the swap curve is used as a basis to estimate the total risk reduction.

A Annex A: Comparing Purple 2008 and extended Purple 2008 datasets

A.1 Summary

The extended Purple 2008 dataset gives a slightly fuller representation of the defined benefit (DB) universe, as at 31 March 2008, than the original dataset used in the production of last year's Purple Book. The extended dataset benefits from additional scheme information being made available over the 2008/09 financial year. Some additional information will come about as a result of late returns, but much will reflect "cleaning" of the data by the PPF. Such cleaning may be necessary because some elements of the scheme return may have been missing or failed the PPF's data quality checks.

The move to the extended Purple 2008 dataset is less significant than the equivalent exercise last year. This is because the sample of schemes in the Purple 2008 dataset was much larger than that for Purple 2007 – 6,898 compared with 5,892. As a result, fewer schemes had to be added to the extended dataset.

Scheme demographics appear to be relatively unaffected in the extended Purple 2008 dataset. However, the aggregate section 179 deficit as at 31 March 2008 of the enlarged dataset is slightly smaller than the original Purple 2008 dataset - £4.2 billion compared with £5.1 billion.

A.2 Introduction

The analysis in Purple 2008 was based on a sample of 6,898 schemes. Since the Purple 2008 calculations, information for 364 more schemes has become available, bringing the number of schemes in the extended dataset to 7,262. This is the largest available full dataset of the universe of eligible schemes for the 2008/09 levy year[53].

The analysis in this section compares the two datasets and highlights any significant changes in key indicators caused by the expansion of the sample.

A.3 Scheme Demographics

The original Purple 2008 dataset consisted of 6,898 schemes and 12.4 million memberships while the extended Purple 2008 dataset now consists of 7,262 schemes and has 12.6 million memberships. The additional schemes make up around 5 per cent of the extended dataset and 2 per cent of memberships. The result is a small fall in the average scheme membership size from nearly 1,800 to around 1,740, the additional schemes in the extended dataset being relatively small.

Table A1 shows the percentage of schemes in each membership group in the Purple 2008 and extended Purple 2008 datasets. The changes are relatively small. The largest change is seen in the smallest group, the percentage of total schemes increasing from 35.8 per cent to 36.3 per cent in the extended dataset.

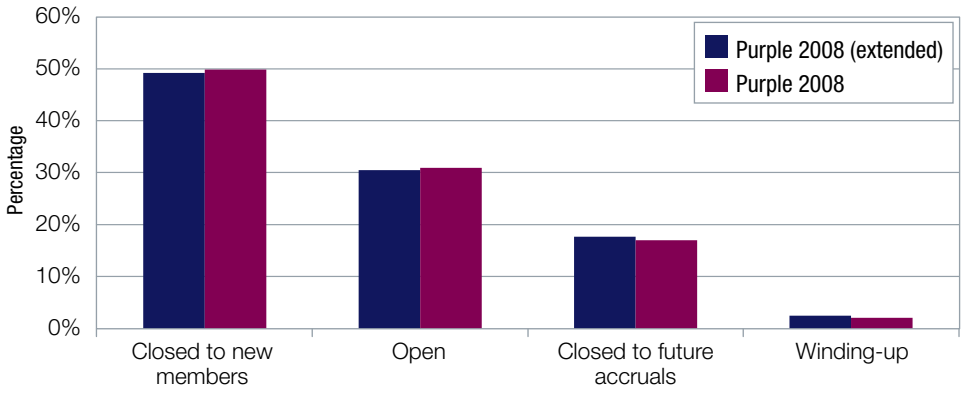
53 The sample used for the PPF 7800 index at end March 2009 contains 7,411 schemes. Of these, 149 have not been included in the extended Purple 2008 dataset. This is due to various data issues, including scheme statuses being listed as 'unknown' and missing membership data.

Table A1 | Distribution of schemes by membership group in the Purple 2008 and extended Purple 2008 dataset

	Percentage of schemes in the Purple 2008 dataset	Percentage of schemes in the Extended Purple 2008 dataset
5 to 99 members	35.8%	36.3%
100 to 999 members	45.4%	45.4%
1,000 to 4,999 members	12.8%	12.6%
5,000 to 9,999 members	2.8%	2.6%
More than 10,000 members	3.2%	3.1%

There are small changes of less than one per cent in all the scheme status categories when comparing the distribution of schemes by scheme status in both the extended and original Purple 2008 datasets (see Chart A1 below).

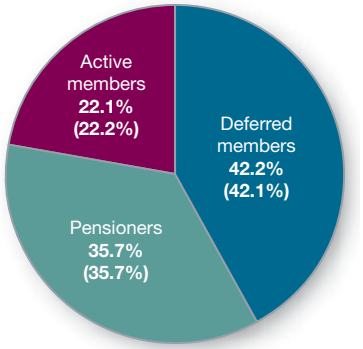
Chart A1 | Distribution of schemes by scheme status



Source: PPF/The Pensions Regulator

The distribution of member types (see Chart A2 below) does not show any significant change between the original and the extended Purple 2008.

Chart A2 | Distribution of member types in extended Purple 2008 dataset

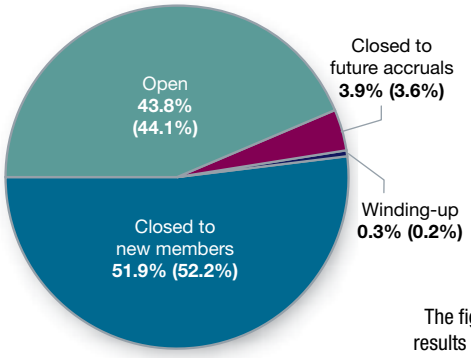


The figures in brackets show the results for the Purple 2008 dataset

Source: PPF/The Pensions Regulator

The inclusion of the extra 364 schemes in the Purple 2008 extended dataset has had no significant impact on the percentage distribution of members by scheme status (see Chart A3 below).

Chart A3 | Distribution of members by scheme status in the extended Purple 2008 dataset*



The figures in brackets show the results for the Purple 2008 dataset

Source: PPF/The Pensions Regulator
*The numbers may not sum to 100 per cent due to rounding.

A.4 Scheme funding

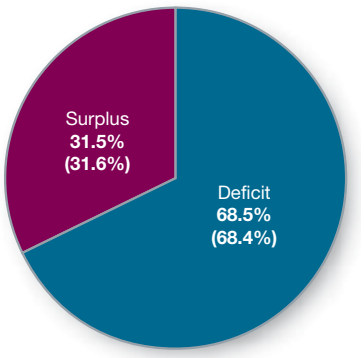
The total of assets including deficit reduction contributions (DRCs) increased by 1.6 per cent to £850.7 billion in the extended dataset. In the original Purple 2008 dataset, assets were £837.2 billion. As many of the additional schemes are small, the average assets per scheme fell to £117.1 million in the extended dataset (originally £121.4 million). Total section 179 (s179) liabilities have increased to £854.9 billion in the extended dataset. This is a rise of 1.5 per cent compared with the original Purple 2008 dataset, which recorded total liabilities as £842.3 billion. The new information and additional schemes in the extended dataset have resulted in a decrease in the aggregate s179 deficit from £5.1 billion to £4.2 billion (see Table A2).

Table A2 | s179 assets and liabilities in the extended Purple 2008 and Purple 2008 datasets

	Purple 2008 (£ billion)	Extended Purple 2008 (£ billion)
Assets	837.2	850.7
Liabilities	842.3	854.9
Deficit	5.1	4.2

Chart A4 shows the distribution of schemes in surplus and deficit on an s179 basis in the extended dataset. The results show no significant difference between the Purple 2008 dataset and the extended dataset.

Chart A4 | Distribution of schemes in surplus and in deficit

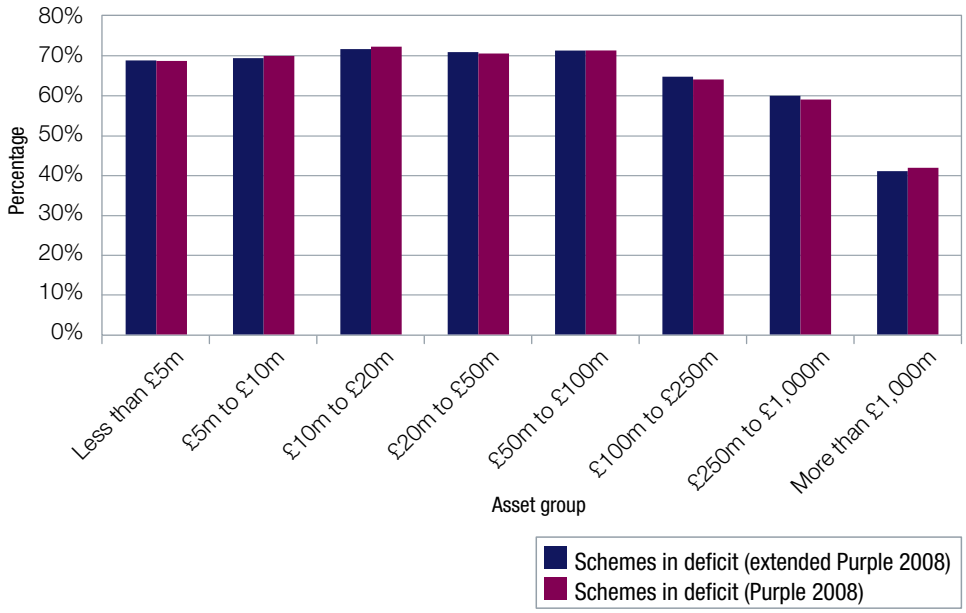


The figures in brackets show the results for the Purple 2008 dataset

Source: PPF/The Pensions Regulator

There has been very little change in the distribution of s179 deficit schemes by asset size (see Chart A5).

Chart A5 | Percentage of schemes in deficit on a s179 basis by size of assets in the extended Purple 2008 dataset



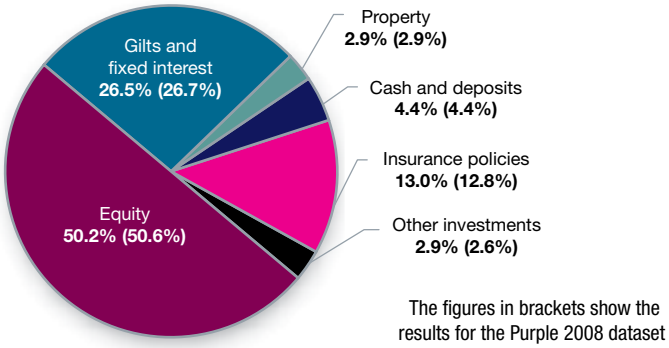
Source: PPF/The Pensions Regulator

A.5 Asset allocation

For this section, DRCs have been removed from the assets. DRCs are not included in the asset breakdowns provided by schemes in the scheme return and so it is not clear how they are invested.

The simple average of asset allocations for schemes in the extended Purple 2008 dataset is shown in Chart A6. The asset allocation is very similar to the one in the original dataset.

Chart A6 | Average asset allocation for all schemes in the extended Purple 2008 dataset*

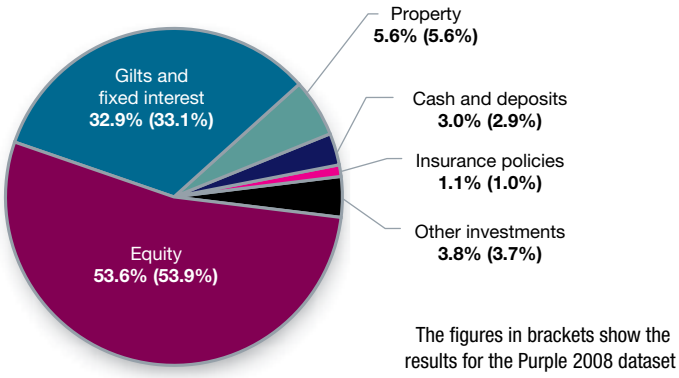


Source: Source: PPF/The Pensions Regulator

* Proportions of total assets in Charts A6 and A7 may not sum to 100 per cent due to rounding.

Chart A7 shows the weighted average asset allocation for all schemes in the extended Purple 2008 dataset weighted by assets. Again, this shows no significant changes from the original dataset, with none of the differences being greater than half a percentage point.

Chart A7 | Weighted average asset allocation for schemes in the extended Purple 2008 dataset



Source: PPF/The Pensions Regulator

B Annex B: Risk developments

B.1 Summary

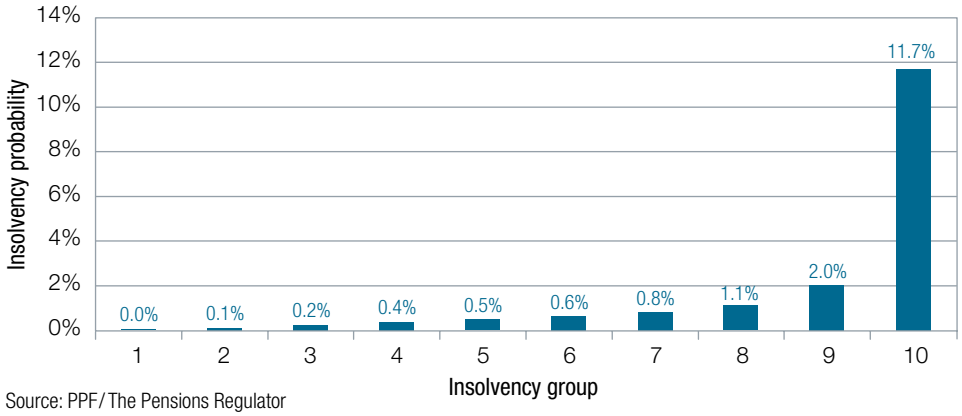
The weighted average insolvency probability (by section 179 (s179) liabilities) for schemes in the Purple 2009 dataset excluding those in assessment is 0.2 per cent. This compares with 0.4 per cent for the Purple dataset as a whole, as reported in Chapter 6, Insolvency Risk. From a risk point of view, it is appropriate to exclude schemes in assessment since they have been taken into account in arriving at the PPF's balance sheet published in the Annual Report and Accounts 2008/09.

B.2 Insolvency risks of schemes in the sample

The average insolvency probability on an unweighted basis for the Purple 2009 sample excluding schemes in assessment is 0.6 per cent. The weighted average insolvency probability (by s179 liabilities) for these schemes is 0.2 per cent. Further analysis of scheme insolvency probabilities for all schemes in the Purple 2009 dataset is given in Chapter 6, Insolvency risk.

Chart B1 shows an unweighted average insolvency probability of 11.7 per cent for schemes in insolvency Group 10.[54] The other nine groups have relatively low average insolvency probabilities in comparison with Group 10, with the next highest average insolvency probability being 2.0 per cent.

Chart B1 | Average unweighted insolvency probability by insolvency group

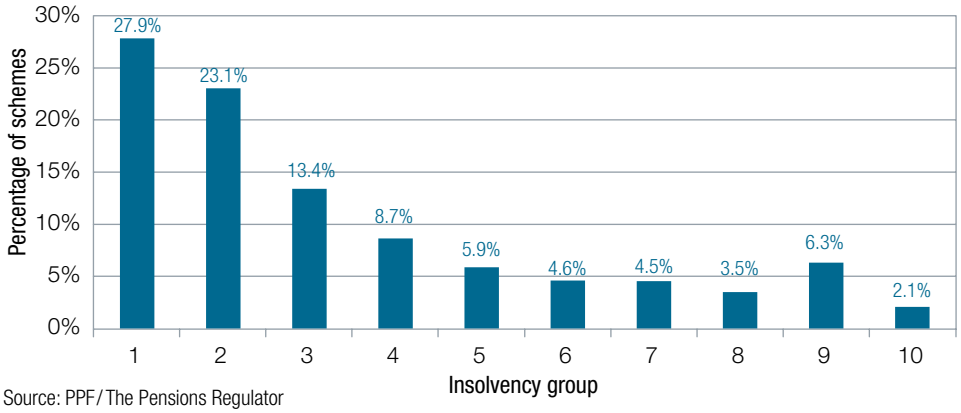


Source: PPF/The Pensions Regulator

54 See Chapter 8, Risk developments for insolvency and underfunding groupings.

Chart B2 illustrates that the distribution of schemes in the Purple 2009 dataset, excluding schemes in assessment is skewed towards the lower insolvency groups. Fifty-one per cent of schemes in the sample fell into insolvency groups 1 and 2.

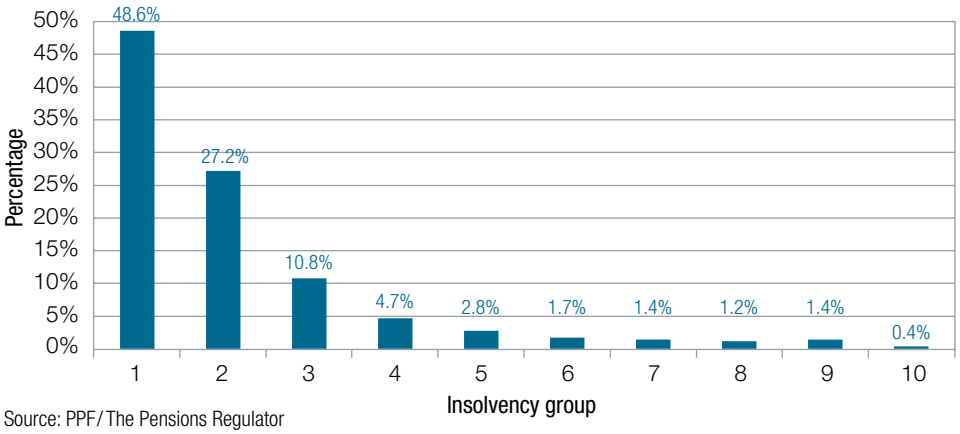
Chart B2 | Percentage of schemes by insolvency group



Source: PPF/The Pensions Regulator

On average, the larger schemes by liabilities tend to inhabit the lower insolvency risk groups, with 48.6 per cent of liabilities in insolvency Group 1 and 75.8 per cent in Groups 1 and 2 (see Chart B3).

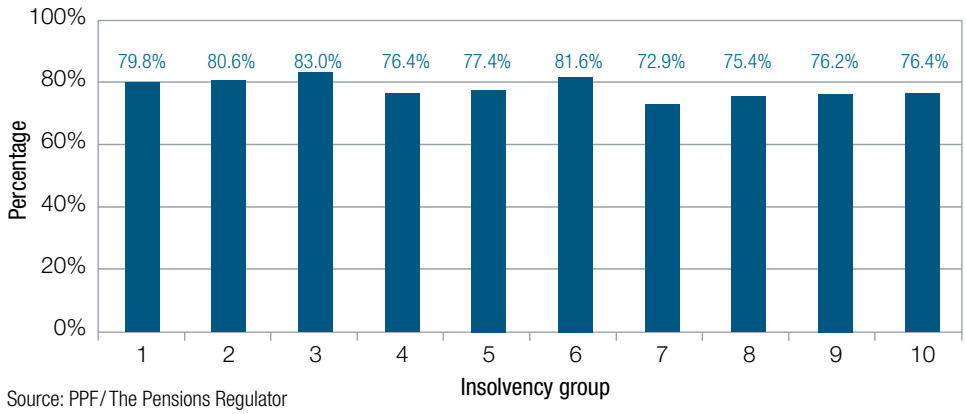
Chart B3 | Percentage of total scheme s179 liabilities by insolvency group



Source: PPF/The Pensions Regulator

A scheme's funding position is calculated as the ratio of its assets (including deficit reduction contributions) to its liabilities. Broadly speaking, for the Purple 2009 dataset excluding schemes in assessment, the funding positions of schemes in the higher insolvency groups are slightly weaker than that for those in the lower groups (see Chart B4). That said, the best funded insolvency group is not Group 1, but rather Group 3 with 83.0 per cent average funding. Furthermore, the variation in funding across groups is smaller than in 2008. For all groups funding is substantially below that in 2008.

Chart B4 | Funding position on a s179 basis by insolvency group

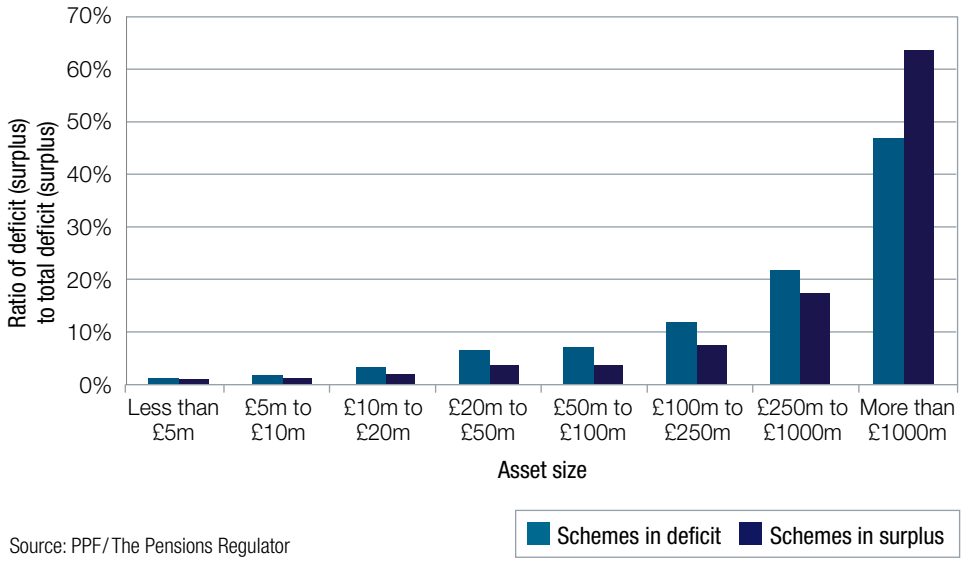


Source: PPF/The Pensions Regulator

B.3 Schemes in deficit and surplus

Categorising schemes by size of assets, Chart B5 shows that s179 surpluses in the largest asset group represent 63.3 per cent of total surpluses and s179 deficits represent 46.9 per cent of total deficits.

Chart B5 | Share of s179 surplus and deficit by asset size

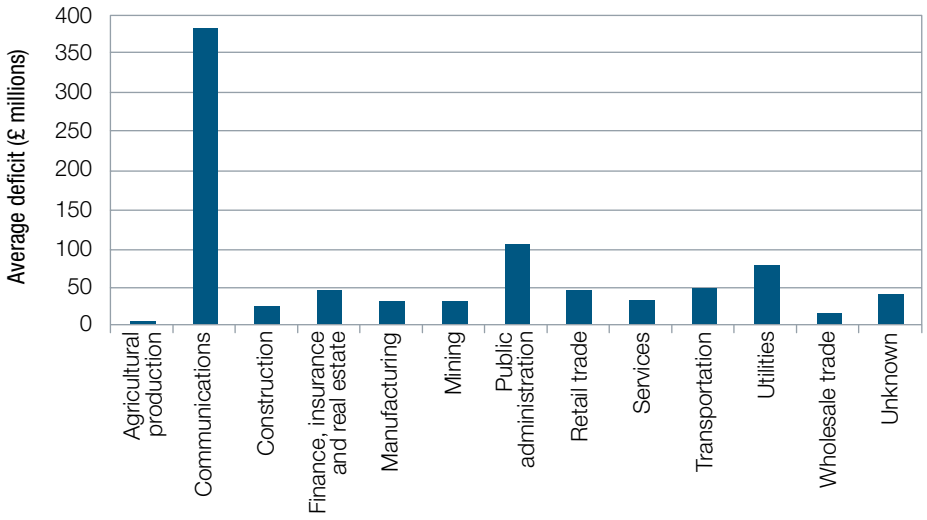


Source: PPF/The Pensions Regulator

B.4 Weighted deficit concentration by industry

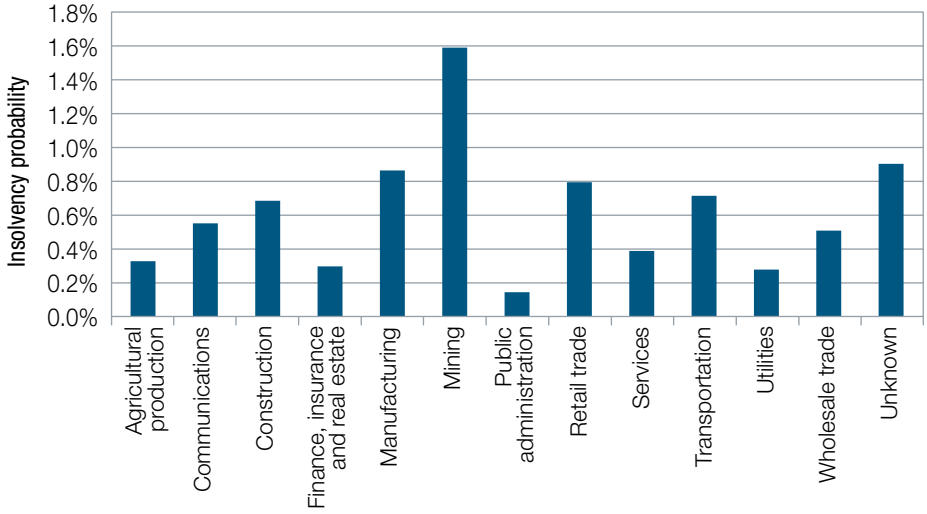
Average scheme deficits were largest in communications (Chart B6) followed by public administration and utilities, while average insolvency probabilities were highest in mining, manufacturing and retail trade (Chart B7). Note that while manufacturing presents by far the largest total weighted deficit (see Chart 8.4), it exhibits a relatively low average deficit (see Chart B6). This low average deficit derives from the large number of small schemes with manufacturing firms as sponsors.

Chart B6 | Average s179 deficit by industry (for schemes in deficit)



Source: PPF/The Pensions Regulator

Chart B7 | Average insolvency probability by industry (for schemes in deficit)



Source: PPF/The Pensions Regulator

Chapter 3 data tables

Scheme Status by number of memberships	Purple 2008 (Extended)					Purple 2009				
	Open (Open and Part Open)	Closed to new members	Closed to future accruals	Winding up	Total	Open	Closed to new members	Closed to future accruals	Winding up	Total
Number of schemes										
5 to 99 members	715	1,187	620	111	2,633	570	1,165	602	102	2,439
100 to 999 members	948	1,711	586	55	3,300	819	1,693	601	49	3,162
1,000 to 4,999 members	390	448	66	9	913	348	455	64	10	877
5,000 to 9,999 members	82	104	6	-	192	63	107	9	1	180
Over 10,000 members	84	134	6	-	224	71	148	8	-	227
Total number of schemes	2,219	3,584	1,284	175	7,262	1,871	3,568	1,284	162	6,885
Total percentage of schemes	31%	49%	18%	2%	100%	27%	52%	19%	2%	100%
Number of memberships										
5 to 99 members	27,938	54,286	28,559	3,247	114,030	22,583	53,094	28,284	2,721	106,682
100 to 999 members	352,209	615,476	167,163	17,927	1,152,775	305,378	609,548	178,286	13,592	1,106,804
1,000 to 4,999 members	893,016	959,226	133,090	16,154	2,001,486	828,698	990,625	126,659	20,795	1,966,777
5,000 to 9,999 members	566,723	772,866	49,148	-	1,388,737	424,753	792,225	70,898	7,262	1,295,138
Over 10,000 members	3,689,507	4,149,356	115,944	-	7,954,807	2,977,210	4,841,348	121,758	-	7,940,316
Total number of memberships	5,529,393	6,551,210	493,904	37,328	12,611,835	4,558,622	7,286,840	525,885	44,370	12,415,717
Total percentage of memberships	44%	52%	4%	0%	100%	37%	59%	4%	0%	100%

Member Types by Number of Memberships	Purple 2008 (Extended)				Purple 2009			
	Active	Pensioner	Deferred	Total	Active	Pensioner	Deferred	Total
Number of memberships								
5 to 99 members	23,781	30,797	59,452	**114,030**	18,907	31,423	56,352	**106,682**
100 to 999 members	269,976	304,606	578,190	**1,152,772**	226,995	314,813	565,006	**1,106,814**
1,000 to 4,999 members	485,401	594,242	921,843	**2,001,486**	433,224	612,798	920,755	**1,966,777**
5,000 to 9,999 members	323,494	461,099	604,144	**1,388,737**	267,960	441,940	585,238	**1,295,138**
Over 10,000 members	1,683,032	3,117,086	3,154,689	**7,954,807**	1,651,995	3,089,244	3,199,077	**7,940,316**
Total number of memberships	2,785,684	4,507,830	5,318,318	**12,611,832**	2,599,081	4,490,218	5,326,428	**12,415,727**
Total percentage of memberships	22%	36%	42%	**100%**	21%	36%	43%	**100%**

Industry classification	Purple 2008 (Original)												
	Public Administration	Agriculture	Mining	Utilities	Construction	Wholesale	Transportation	Communications	Manufacturing	Finance, Insurance and Real Estate	Retail	Services	Total
Number of schemes													
Total number of schemes	34	61	52	84	220	646	326	37	2,146	1,164	382	1,546	**6,698**
Total percentage of schemes	1%	1%	1%	1%	3%	10%	5%	1%	32%	17%	6%	23%	**100%**
Liabilities													
Total s179 liabilities (£bns)	8.1	1.6	3.7	28.4	28.7	33.7	45.9	52.0	227.2	198.3	60.1	149.1	**727.51**
Total percentage of s179 liabilities	1%	0%	0%	3%	3%	4%	5%	6%	27%	24%	7%	18%	**100%**

Industry classification	Purple 2009												
	Public Administration	Agriculture	Mining	Utilities	Construction	Wholesale	Transportation	Communications	Manufacturing	Finance, Insurance and Real Estate	Retail	Services	Total
Number of schemes													
Total number of schemes	35	68	53	84	225	646	321	46	2,161	1,160	378	1,614	**6,791**
Total percentage of schemes	1%	1%	1%	1%	3%	9%	5%	1%	31%	17%	5%	23%	**98%**
Number of memberships													
Total number of memberships	117,393	43,511	41,101	313,347	426,667	500,130	609,967	487,130	3,581,212	2,706,679	1,342,632	2,135,746	**12,305,575**
Total percentage of memberships	1%	0%	0%	3%	3%	4%	5%	4%	29%	22%	11%	17%	**100%**
Liabilities													
Total s179 liabilities	9.52	2.05	4.90	34.77	33.60	35.34	52.05	60.84	262.13	231.23	68.00	176.82	**971.25**
Total percentage of s179 liabilities	1%	0%	1%	4%	3%	4%	5%	6%	27%	24%	7%	18%	**100%**

Chapter 4 data tables

s179 funding						
	Schemes in sample	Market value of assets (£ billions)	Total s179 liabilities (£ billions)	Balance (£ billions)	Weighted average funding level	Simple average funding level
Scheme size measured by number of members						
2009						
5 to 99 members	2,439	9.2	10.7	-1.4	87%	84%
100 to 999 members	3,162	68.0	91.3	-23.4	74%	72%
1,000 to 4,999 members	877	115.3	155.4	-40.1	74%	72%
5,000 to 9,999 members	180	81.0	103.7	-22.7	78%	75%
10,000+ members	227	506.9	619.9	-113.0	82%	81%
Total	**6,885**	**780.4**	**981.0**	**-200.6**	**80%**	**77%**
2009 rolled back to 2008						
5 to 99 members	2,439.0	9.8	9.2	0.6	106%	102%
100 to 999 members	3,162.0	74.4	78.8	-4.4	94%	91%
1,000 to 4,999 members	877.0	127.1	134.0	-7.0	95%	92%
5,000 to 9,999 members	180.0	89.4	89.4	-0.1	100%	96%
10,000+ members	227.0	556.4	533.3	23.1	104%	101%
Total	**6,885.0**	**857.0**	**844.7**	**12.3**	**101%**	**95%**

s179 funding... continued						
	Schemes in sample	Market value of assets (£ billions)	Total s179 liabilities (£ billions)	Balance (£ billions)	Weighted average funding level	Simple average funding level
Proportion of liabilities that are pensions in payment						
2009						
25% and less	2,986	110.4	170.4	-60.0	65%	69%
Between 25% and 50%	2,856	419.4	542.2	-122.8	77%	77%
Between 50% and 75%	863	228.5	248.2	-19.7	92%	94%
Between 75% and 100%	180	22.1	20.2	1.9	109%	115%
Total	**6,885**	**780.4**	**981.0**	**-200.6**	**80%**	**77%**
2009 rolled back to 2008						
25% and less	2,994	127.0	148.8	-21.8	85%	87%
Between 25% and 50%	2,841	467.2	466.6	0.6	100%	97%
Between 50% and 75%	872	240.8	211.8	29.0	114%	112%
Between 75% and 100%	178	21.9	17.5	4.4	125%	135%
Total	**6,885**	**857.0**	**844.7**	**12.3**	**101%**	**95%**

s179 funding... continued						
	Schemes in sample	Market value of assets (£ billions)	Total s179 liabilities (£ billions)	Balance (£ billions)	Weighted average funding level	Simple average funding level
Scheme status						
2009						
Open	1,871	276.9	352.8	-75.9	78%	74%
Closed to new entrants	3,568	474.8	590.4	-115.6	80%	77%
Closed to future accrual	1,284	25.8	35.0	-9.2	74%	76%
Winding up	162	2.9	2.8	0.1	103%	100%
Total	**6,885**	**780.4**	**981.0**	**-200.6**	**80%**	**77%**
2009 rolled back to 2008						
Open	1,871	311.3	304.0	7.4	102%	95%
Closed to new entrants	3,568	515.0	508.0	7.0	101%	96%
Closed to future accrual	1,284	27.8	30.3	-2.5	92%	93%
Winding up	162	2.9	2.4	0.4	118%	114%
Total	**6,885**	**857.0**	**844.7**	**12.3**	**101%**	**95%**

Buy-out funding						
	Schemes in sample	Market value of assets (£ billions)	Total buy-out liabilities (£billion)	Balance (£ billions)	Weighted average funding level	Simple average funding level
Scheme size measured by number of members						
2009						
5 to 99 members	2,439	9.2	14.5	-5.3	64%	62%
100 to 999 members	3,162	68.0	124.1	-56.1	55%	53%
1,000 to 4,999 members	877	115.3	211.9	-96.6	54%	53%
5,000 to 9,999 members	180	81.0	142.2	-61.2	57%	55%
10,000+ members	227	506.9	858.8	-351.9	59%	59%
Total	**6,885**	**780.4**	**1351.6**	**-571.2**	**58%**	**56%**
2009 rolled back to 2008						
5 to 99 members	2,439	9.2	14.6	-5.4	63%	61%
100 to 999 members	3,162	69.2	125.4	-56.1	55%	54%
1,000 to 4,999 members	877	117.6	214.1	-96.5	55%	54%
5,000 to 9,999 members	180	82.7	143.6	-60.9	58%	56%
10,000+ members	227	512.8	865.1	-352.3	59%	58%
Total	**6,885**	**791.5**	**1,362.7**	**-571.2**	**58%**	**57%**
Scheme status						
2009						
Open	1,871	276.9	480.4	-203.5	58%	56%
Closed to new entrants	3,568	474.8	819.1	-344.2	58%	56%
Closed to future accrual	1,284	25.8	48.3	-22.5	53%	55%
Winding up	162	2.9	3.8	-1.0	75%	72%
Total	**6,885**	**780.4**	**1351.6**	**-571.2**	**58%**	**56%**
2009 rolled back to 2008						
Open	1,871	290.2	484.5	-194.3	60%	57%
Closed to new entrants	3,568	472.9	825.7	-352.8	57%	57%
Closed to future accrual	1,284	25.7	48.7	-23.0	53%	55%
Winding up	162	2.7	3.9	-1.2	70%	66%
Total	**6,885**	**791.5**	**1362.7**	**-571.2**	**58%**	**57%**

Industry classification*	Purple 2009												
	Public Administration	Agriculture	Mining	Utilities	Construction	Wholesale	Transportation	Communications	Manufacturing	Finance, Insurance and Real Estate	Retail	Services	Total
Number of schemes by industry classification and s179 funding level													
Original 2008													
low to 50%	-	-	-	-	-	18	9	-	54	23	9	53	
50 to 75%		19	11	15	51	145	60	9	449	204	78	315	
75 to 100%	18	23	18	26	92	232	142	10	963	442	176	616	
Greater than 100%	11	16	15	38	64	230	112	14	632	479	110	509	
2009													
low to 50%	-	15	-	7	20	52	31	7	216	79	43	134	
50 to 75%	14	29	26	31	111	279	172	18	1119	442	171	466	
75 to 100%	13	15	19	35	68	215	71	13	572	408	116	476	
Greater than 100%	-	9	-	11	26	100	47	8	254	231	48	238	
s179 liabilities by industry classification in (£ billions)													
Original 2008													
Liabilities	7.4	0.9	3.0	24.5	23.9	28.2	40.0	44.3	201.2	175.8	47.7	130.5	727.5
Assets	7.1	1.0	2.8	26.6	28.9	26.6	43.3	53.9	202.5	194.5	52.0	140.0	779.1
2009													
Liabilities	9.5	2.1	4.9	34.8	33.6	35.3	52.1	60.9	262.1	231.2	68.0	176.8	
Assets	6.4	2.0	3.4	29.3	29.5	26.3	41.2	47.3	204.8	193.8	56.2	133.2	

* Total number of schemes and /or scheme liabilities may differ from those quoted elsewhere due to incomplete industry classification data for a small number of schemes. Cells marked with a '-' indicate values suppressed to preserve confidentiality. Values are suppressed where five or less schemes are found in that category

Glossary

Active member

In relation to an occupational pension scheme, a person who is in pensionable service under the scheme.

Acronyms

- LDI
  Liability-driven investment
- ONS
  Office for National Statistics
- SSF
  Scheme specific funding
- NAPF
  National Association of Pension Funds

Administration

See Company: trading status.

Aggregate funding position

Sum of assets less sum of liabilities, or sum of scheme funding positions. In a pool of schemes where schemes in deficit outweigh schemes in surplus there is an aggregate deficit.

Assessment period

The time when a scheme is being assessed to see if the Pension Protection Fund can assume responsibility for it.

Buy-out basis

The level of coverage the current assets will provide if all benefits were to be bought out in the name of the individual member with an insurance company. See also full buy-out.

Closed (to new members)

The scheme does not admit new members. Existing members can continue to accrue pensionable service/benefits.

Company: business types

- Limited liability partnerships
  These are a type of alternative corporate business vehicle that gives the benefits of limited liability but allows its members the flexibility of organising their internal structure as a traditional partnership.

- Partnership
  The relationship that exists between individuals who run a business together with a view to making a profit. The rights of each partner are governed by a partnership agreement or the Partnership Act 1980.
- Private company
  A company registered under the Companies Act 1985 that is not a public limited company. A private company may be registered as a limited or unlimited liability company. It must have at least one member and at least one director. There is no minimum share capital requirement.
- Public limited company
  A company registered under the Companies Act 1985. It must have at least two members and two directors and a share capital that complies with the authorised minimum amounts. It can offer its shares to the public and may be among the public companies that trade on the Stock Exchange.
- Registered charity
  An institution (corporate or not) which is established for exclusively charitable purposes and which is registered with the Charity Commission.
- Sole trader
  An individual who carries on a business on his or her own account. The individual is fully liable for any losses of the business and pays income tax on any taxable profits of the business.

Company: trading status

- Active/currently trading
  The company is continuing to trade.
- Administration
  One of the main corporate insolvency rescue procedures. It can be a precursor to a company voluntary arrangement under which the company is restructured and passed back to its directors. In an administration, the insolvency practitioner, as officer of the court, takes over powers of management of the business (but is able to delegate these back to management) with the objective of rescuing the company or (if that is not possible, or if the result would be better for creditors) rescuing the business as a going concern and providing protection from actions by creditors while doing so. A partnership can also be subject to administration as a prelude to a partnership voluntary arrangement.
- Dissolved
  The company has ceased trading. All assets of the company have been disposed of and/or it has been taken off the register at Companies House.
- Dormant
  The company is not currently trading but remains a corporate entity and/or remains on the register at Companies House.
- In liquidation
  Either a creditor or the company can apply to the courts to put the company into liquidation. It is the process which eventually brings a company's existence to an end after distributing its assets to creditors/shareholders.

- Liquidated
  Following the liquidation process, the company has ceased trading. All assets of the company have been disposed of and/or it has been taken off the register at Companies House.
- Receivership
  (Also known as administrative receivership or Law of Property Act (LPA) 1925 receivership.) Non-court procedure whereby an insolvency practitioner takes control of the whole of a company's assets under the terms of a charge or mortgage.

Default risk

The risk that the borrower will be unable to satisfy the terms of its borrowing obligations with respect to the timely payment of interest and repayment of the amount borrowed.

Deferred member

In relation to an occupational pension scheme, a person (other than an active or pensioner member) who has accrued rights under the scheme.

Deficit reduction contribution

A one-off (or irregular) contribution made by a scheme sponsor to a pension scheme to reduce the level of deficit.

Defined benefit

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.

Defined contribution

Benefits are based on the amount of contributions paid, the investment returns earned and the amount of pension this money will buy when a member retires. These schemes are also referred to as money purchase pension schemes.

Dun & Bradstreet (D&B)

A provider of insolvency scores.

FRS17

In November 2000, the UK Accounting Standards Board released a new financial reporting standard, numbered 17 ('FRS17'). This sets out the accounting treatment for retirement benefits such as pensions and medical care during retirement. It replaces SSAP 24 ('Accounting for pension costs') and UITF Abstract 6 ('Accounting for post-retirement benefits other than pensions').

Full buy-out

The cost of insuring a pension scheme in the private market. The discount rate applied to liabilities would be more prudent in general than the discount rate applied to section 179 and MFR valuations. The benefit assumed in private insurance is usually non-capped and thus could be greater than Pension Protection Fund coverage.

Gilt yield

The yield, if held to maturity, of a government (non-indexed) bond.

Hybrid scheme or partial defined benefit 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.

Insolvency events

These are the insolvency triggers set out in the Pension Protection Fund legislation.

Insolvency risk

The risk that a borrower will have to close business due to its inability to service either the principal or interest of its debt. This is a more extreme event than a default. See also Insolvency events.

Insurance company

Insurance companies provide a range of services to pension schemes, including:

- asset investment;
- asset management;
- investment advice and expertise;
- custodian facilities; and
- scheme administration services.

Insurance managed funds

A unitised fund invested in multiple investment categories managed by an insurance company.

Insurance policy

Investment class: an annuity or a deposit administration contract purchased from an insurance company.

LTRM

The Pension Protection Fund's Long-Term Risk Model, which is based on stochastic simulations of economic scenarios and their respective impacts on assets and liabilities of pension schemes under coverage and the credit quality of the sponsoring employers.

Minimum funding requirement/valuation (MFR)

The MFR valuation was introduced to provide a uniform funding floor for defined benefit schemes. Schemes were required to be funded to a given level or, if they were not already at that level, to achieve it within a set period.

MFR roll-forward

Estimate of a section 179 liability derived from a Minimum Funding Requirement (MFR) calculation.

MQ5 data

The data from the ONS MQ5 enquiry is based on a sample of 350 pension schemes. This is comprised of around 100 local authorities and 250 public and private corporations (the PPF database excludes local authorities and public corporations). The sample has total assets of £1,100 billion, which is much higher than the PPF database. All schemes with more than 20,000 members are automatically included and schemes with less than 20,000 members are randomly selected. The sample is made up of what are known as 'superannuation and self-administered pension funds'. A self-administered pension fund id defined as an occupational pension schemes with units invested in one or more managed schemes or unit trusts; a superannuation pension fund is defined as a an organisational pension programme created by a company for the benefit of its' employees. The sample may also contain defined contribution schemes.

Open

The scheme continues to accept new members, and benefits continue to accrue.

Paid up (or frozen)

All contributions to the scheme have stopped and no further pensionable service accrues. Members' benefits for earlier service continue to be held and invested in the scheme.

Participating employer

An employer that has some (or all) employees who can join an occupational pension scheme. This term is usually used where there is more than one employer participating in a single scheme.

Pensioner member

A person who is currently receiving a pension from the scheme or from an annuity bought in the trustee's name.

Pension Protection Fund (PPF)

A statutory corporation run by the Board of the Pension Protection Fund, established under the Pensions Act 2004.

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. It is similar to an insurance premium.

The Pensions Regulator

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

Principal employer

The employer named in the trust deed and rules of the scheme which usually has powers such as those to appoint trustees, amend the scheme rules or wind the scheme up. This is often the employer who set up the scheme, or its successor in business.

Risk-based levy

See pension protection levy. Calculated on the basis of a pension scheme's deficit and insolvency risk of the sponsoring employer.

Scheme actuary

The named actuary appointed by the trustees of a defined benefit occupational pension scheme to carry out specific duties set out in the Pensions Act 1995.

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 can 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.

Scheme-based levy

See pension protection levy. Calculated on the basis of section 179 liabilities and the number of members participating in the pension scheme.

Scheme funding position

The difference between the assets and liabilities of a pension scheme (scheme deficit if negative, scheme surplus if positive).

Scheme funding valuation

New legislation on scheme funding came into force on 30 December 2005. The new requirements, introduced by the Pensions Act 2004, replace the minimum funding requirement and apply to occupational pension schemes providing defined benefits.

Scheme member

In relation to an occupational pension scheme, a scheme member is any person who:

- is an active member;
- is a deferred member;
- is a pensioner member;
- has rights due to transfer credits under the scheme; or
- has pension credit rights under the scheme.

This includes scheme members whose only entitlements are equivalent pension benefits (EPBs) as those rights were earned through pensionable employment. Members (for occupational and personal schemes) do not include dependants of members. Those whose only entitlements are lump sum benefits payable on death are also not included.

Scheme return notice

The Pensions Act 2004 set out the requirement to send occupational pension schemes a scheme return to complete. The information collected in the scheme return will further enable the regulator to perform its new role and responsibilities. The scheme return notice is issued to schemes to inform them that it is time to complete a scheme return.

Sectionalised scheme

A multi-employer scheme which is divided into two or more sections where:

- any contributions payable to the scheme by an employer in relation to the scheme, or by an employee of that employer, are allocated to that employer's section; and
- a specified proportion of the assets of the scheme is attributable to each section of the scheme and cannot be used for the purposes of any other section.

Some sections open/some sections closed

A scheme that has sections with different status types. For example the scheme may have a defined benefit section closed to new entrants, and a defined contribution section open to new entrants.

Swap

A contract calling for the exchange of payments over time. Often one payment is fixed in advance and the other is floating based upon the realisation of a price or interest rate.

Total deficit

Sum of scheme deficits, or sum of scheme funding positions for schemes in deficit only.

Trustees

- Corporate trustee (non-professional)
  A company usually related to the employer (or the employer itself) set up to act as trustee for a scheme or a series of related or associated schemes.

- Member-nominated trustee (MNT)
  A person nominated by the members (and sometimes elected) to be a trustee of the scheme. A MNT may be a member of the scheme. A MNT is appointed in accordance with sections 16-21 of the Pensions Act 1995.

- Pensioneer trustee
  A pensioneer trustee is an individual or a company recognised by HMRC (Inland Revenue) as having pensions expertise.

- Professional trustee (including corporate)
  A professional trustee not connected with the employer and not a scheme member. The trustee could be a corporate trustee company or an individual. A professional trustee provides trusteeship and trustee services to a number of unrelated and non-associated pension schemes.

- Statutory independent trustee
  A trustee appointed to a scheme where an insolvency practitioner has been appointed over an employer in accordance with sections 22-26 of the Pensions Act 1995.

Voluntary form reporting

Electronic forms are available on the Pension Protection Fund's website for pension schemes to provide data regarding sectionalised schemes, contingent assets, participating employers, scheme structure, estimates of pension fund deficits on a section 179 basis, deficit reduction contributions and block transfers.

Winding up/wound up

After the wind-up is complete (the scheme is wound up), there will be no assets or liabilities left in the scheme, and the scheme will cease to exist as a legal entity. Winding up describes the process of reaching wind-up from normal ongoing status. To make sure that members will still receive benefits, there are several options:

- transferring pension values to another pension arrangement;
- buying immediate or deferred annuities; or
- transferring the assets and liabilities of the scheme to another pension scheme.

The scheme must be wound up in accordance with the scheme rules and any relevant legislation.

How to contact us:

Pension Protection Fund

Pensions Protection Fund

Knollys House
17 Addiscombe Road
Croydon
Surrey
CR0 6SR

www.pensionprotectionfund.org.uk

Phone: 0845 600 2541
Textphone: 0845 600 2542
Fax: 020 8633 4903
Email: purplebook@ppf.gsi.gov.uk

The Pensions Regulator

The Pensions Regulator

Napier House
Trafalgar Place
Brighton
BN1 4DW

www.thepensionsregulator.gov.uk
www.trusteetoolkit.com

Customer Support

Phone: 0870 606 3636
9am to 5pm, Monday to Friday
Textphone: 0870 243 3123
Fax: 0870 241 1144
Email: purplebook@thepensionsregulator.gov.uk

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