The Purple Book

DB PENSIONS UNIVERSE RISK PROFILE | 2013

Pension Protection Fund

The Pensions Regulator

The Purple Books give the most comprehensive picture of the risks faced by the PPF-eligible defined benefit pension schemes.

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1 Executive Summary

This is the eighth 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.

1.1 Economic background and introduction

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 for this year. The economic and financial market environment was mixed over the 12 months to March 2013, although there have been signs of improvement since then.

- UK GDP rose by 0.3 per cent year-on-year in the first quarter of 2013.
- Insolvency Service statistics showed that the number of company liquidations fell by 16 per cent in the year to Q1 2013 and other company insolvencies (receiverships, administrations, and company voluntary arrangements) fell by 28 per cent over the same period.
- The Bank of England kept its policy rate unchanged at 0.5 per cent and did not add to its asset purchases under its Quantitative Easing programme.
- The FTSE all-share index rose by 13 per cent in the year to March 2013.
- 10-year gilt yields declined to 1.8 per cent from 2.2 per cent while 10-year AA corporate bond yields fell to 2.9 per cent from 3.9 per cent.
- Scheme funding on a s179[1] basis improved slightly between end-March 2012 and end-March 2013 – the funding ratio (assets divided by liabilities) rose from 83[2] per cent to 84 per cent.

Since March 2013, the environment has improved. Economic recovery gained momentum in the second and third quarters. Gilt yields rose sharply between April and August, reflecting the stronger data and indications that the US Federal Reserve would scale back its Quantitative Easing programme. Equity markets were broadly unchanged over the same period despite higher bond yields. As a result, scheme funding improved to 93 per cent from 84 per cent in March.

[1]The s179 basis is in broad terms what would have to be paid to an insurance company to take on payment of PPF levels of compensation.

[2] This number is based upon the latest s179 valuation guidance , please refer to http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section_179_Assumptions_Guidance_VA6_Apr11.pdf

Table 1.1 | UK economic and financial environment

UK	End March							
	2007	2008	2009	2010	2011	2012	2013	End September 2013
GDP growth year-on-year	2.4%	2.8%	-6.8%	0.5%	1.7%	0.6%	0.3%	1.5%*
Company liquidation rate – 12 months prior	0.7%	0.6%	0.8%	0.9%	0.8%	0.8%	0.7%	0.6%*
Company liquidations	3,163	3,226	4,883	4,014	4,109	4,297	3,601	3,875*
UK corporate insolvency other**	868	1,158	1,783	1,343	1,314	1,290	935	949*
FTSE all share level	3,283	2,927	1,984	2,910	3,068	3,003	3,380	3,444
10-year gilt yield	5.0%	4.3%	3.2%	3.9%	3.7%	2.2%	1.8%	2.7%
10-year AA corporate bond yield	5.7%	6.9%	6.8%	4.7%	5.1%	3.9%	2.9%	3.2%
Bank of England policy rate	5.25%	5.25%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
QE	-	-	£15b	£200b	£200b	£325b	£375b	£375b

Sources: Office for National Statistics, the Insolvency Service, Bank of England and Bloomberg

*These relate to Q3.

**Comprised of receiverships, administrations and company voluntary arrangements.

Much of the analysis of the 2013 Purple Book ('Purple 2013') is based on new information from 6,150 scheme returns issued in December 2012 and January 2013 and returned to the regulator by the end of March 2013.

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 2013.

1.2 The Data

- The main body of the analysis in Purple 2013 is based on new scheme returns for a dataset of 6,150 Defined Benefit (DB) schemes, covering 11.4 million memberships[3]. This represents around 99 per cent of PPF-eligible schemes and universe liabilities, slightly bigger than that used last year. Complete information is not yet available for the remaining schemes and, hence, these have been excluded from the sample.
- It is estimated that the eligible universe of schemes was around 6,225, a reduction from 6,460 in March 2012. The declining universe reflects schemes winding up, scheme mergers, schemes transferring into the PPF and block transfers.
- The fact that the dataset accounts for such a large proportion of the universe means that results for the whole universe would only be slightly different from the results presented in Purple 2013[4].
- As in previous Purple Books, the bulk of the analysis uses funding on a s179 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.

1.3 Scheme Demographics

- The proportion of open schemes was broadly unchanged in 2013 at 14 per cent.
- 30 per cent of the defined benefit schemes in the sample are closed to future accrual, compared with 26 per cent in last year's sample.
- 65 per cent of memberships in the 2013 dataset are in schemes which are closed to new members, whereas less than a quarter are in open schemes.
- The largest proportions of open schemes are found in the 5,000 to 9,999 and greater than 10,000 members categories.
- Less than a quarter of memberships in the 2013 dataset are in open schemes.
- The proportion of memberships in schemes closed to future accrual increased by 4 percentage points in comparison to 2012. This uplift is partially due to improved handling of hybrid scheme statuses.
- The largest group of memberships is that of deferred memberships in schemes which are closed to new members.
- The proportion of active memberships fell by one percentage point between 2012 and 2013.
- The proportion of schemes classified as associated with the Services sector continues to increase.

[3] A 'membership' is one individual's participation in one scheme. One individual can have multiple memberships. Hence the number of memberships exceeds the number of individuals.

[4] This point is illustrated in Annex A of Purple 2009. The summary statistics differed little between the sample and the extended 2008 datasets. The high coverage suggests a similar outcome in relation to the 2013 sample.

1.4 Scheme Funding

- The aggregate s179 funding position of the schemes in the Purple 2013 dataset as at 31 March 2013 was a deficit of £210.8 billion.
- Between 2012 and 2013, the s179 funding ratio remained relatively stable, rising 1 per cent, with closely matched rises in assets and liabilities.
- Estimated full buy-out liabilities have risen by 7 per cent compared to last year's figure, which was 18 per cent higher than the estimate for 2011.
- 62 per cent of liabilities and 63 per cent of assets are in the group of schemes with more than 10,000 members. This group comprises 3 per cent of the schemes in the sample.
- Smallest and largest membership groups tend to have better funding.
- The Membership Group 100-999 has the largest number of schemes (45 per cent of the total) and holds 9 per cent of the assets and liabilities.
- Proportionately more than half of the total assets and liabilities are in schemes where the s179 liabilities for pensions are between 25 per cent and 50 per cent of the total.
- On average, schemes which are closed to new members had higher s179 funding levels than those which were open or closed to future accrual.
- s179 liabilities pertaining to active memberships make up 9 per cent of the total s179 liabilities in the dataset.
- Proportionately more open schemes than closed to new member or closed to future accrual schemes were estimated as funded at greater than 100 per cent on a full buy-out basis.

1.5 Funding Sensitivities

- All the funding sensitivities in this chapter are on a s179 basis, taking the funding position as at 31 March 2013[5] as the base and using the Purple 2013 dataset. The sensitivities do not take into account the use of derivative instruments to hedge changes in interest rates, inflation, equity levels or longevity.

- The aggregate balance has varied by around £485 billion (with the greatest surplus in June 2007 at £193 billion and the greatest deficit in May 2012 at £293 billion).

- Changes in market conditions and financial and demographic assumptions since January 2003 have caused the monthly aggregate funding ratio of pension schemes to vary by 52 percentage points. The highest funding ratio was in June 2007 at 130 per cent and the lowest ratio of 78 per cent was in May 2012.

- The assumptions were changed on 31 March 2008, 31 October 2009 and 1 April 2011. The first two changes improved scheme funding by around £41 billion (5 per cent of liabilities) and £69 billion (8 per cent of liabilities) respectively, while the third worsened scheme funding by around £27 billion[6] (3 per cent of liabilities).

[5] Using the latest valuation guidance as in Chapter 4 , please follow the link for more information http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section_179_Assumptions_Guidance_VA6_Apr11.pdf

[6] For more information see PPF 7800 January 2009, November 2009 and May 2011
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF%207800%20January%2009.pdf
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_7800_November_09.pdf

- The estimated number of schemes in deficit on a s179 basis was at its lowest point in June 2007 at 1,094 schemes (18 per cent of the dataset) and peaked in May 2012 at 5,183 (84 per cent).
- Since end-March 2013, aggregate scheme funding has risen from 84 per cent to 93 per cent in September 2013.
- A 0.1 percentage point (10 basis point) rise in gilt yields decreases the end-March 2013 aggregate deficit by £21.5 billion from £210.8 billion to £189.3 billion while a 2.5 per cent rise in equity prices would reduce the aggregate deficit by £10.6 billion.
- A 0.1 percentage point (10 basis point) reduction in gilt yields raises aggregate scheme liabilities by 2.0 per cent and raises aggregate scheme assets by 0.5 per cent. A 2.5 per cent rise in equity markets raises scheme assets by 0.9 per cent.
- If the assumed rate of inflation increases by 0.1 per cent, with nominal interest rates unchanged, then the s179 liabilities for aggregate schemes increases by approximately 0.8 per cent or £10.5 billion.
- An increase in longevity such that the experienced mortality is now equivalent to that of an individual two years younger would increase aggregate schemes' liabilities by 6.1 per cent, or £80.6 billion.

1.6 Insolvency Risk

- The insolvency rate of the PPF universe (number of insolvency events for sponsors of PPF eligible schemes divided by the total number of scheme sponsors) rose less than the national insolvency rate during the financial crisis. Since the end of the crisis it has fallen below pre-crisis levels, whereas the national insolvency rate remains above pre-crisis levels.
- Over the first eight months of 2013, the liability-weighted insolvency probability of the 500 schemes to which the PPF has the largest exposure (in terms of scheme underfunding adjusted for the volatility of its assets) has remained broadly unchanged at just under 0.7 per cent.
- The UK economy came out of recession in the fourth quarter of 2009. GDP then rose strongly until the third quarter of 2010. The euro area sovereign debt crisis then intensified and began to take its toll on the UK economy, resulting in fairly stagnant activity through 2012. GDP growth has picked up in the first three quarters of 2013.
- The 2008/09 recession resulted in a large rise in the total level of corporate liquidations in England and Wales – up from 3,226 in the first quarter of 2008 to a peak of 5,033 in the second quarter of 2009, an increase of 56 per cent. In the second quarter of 2013, a total of 3,978 liquidations were recorded.
- The rise in company liquidations in the 2008-09 recession was much smaller than in the early 90s contraction, when liquidations more than doubled. This might be the result of a combination of two factors: record low interest rates on one side, allowing companies to meet interest expenses, and a marked reluctance of banks to crystallise losses at a time when the pressure to repair balance sheets was high.

1.7 Asset Allocation

- Purple 2013 data show a continuation of most of the trends seen in recent years: a falling equity allocation and a rising proportion in bonds, hedge funds and cash and deposits; within equities a rising overseas share and falling UK share. However, within bonds for the first time since 2008 there was a fall in the corporate bond allocation and slightly rising government bond allocation.
- The equity allocation fell to 35.1 per cent from 38.5 per cent in 2012. The proportion of gilts and fixed interest rose to 44.8 per cent from 43.2 per cent in 2012. The proportion of hedge funds increased from 4.5 per cent to 5.2 per cent.
- The overseas proportion of total equity holdings rose from 60.0 per cent in 2012 to 61.3 per cent in 2013 with the UK proportion falling from 33.9 per cent to 31.0 per cent. The balance of holdings in unquoted equities increased from 6.1 per cent in 2012 to 7.7 per cent in 2013.
- Within total gilts and fixed interest, the corporate fixed interest securities' allocation decreased from 44.8 per cent in 2012 to 40.6 per cent in 2013. Meanwhile, the proportion of government fixed interest rose from 17.7 per cent to 18.5 per cent. The balance of holdings in index-linked rose to 40.9 per cent from 37.5 per cent in 2012.
- Smaller schemes tend to have a higher allocation to UK equities and a smaller allocation to overseas equities. Within fixed interest, smaller schemes tend to have a higher allocation to government fixed interest and a smaller allocation to index-linked securities.
- Looking at simple averages[7], the allocation to UK equities is, for the first time since the start of the series in 2008, smaller (47.5 per cent) than that for overseas equities (50.3 per cent). Considering gilts and fixed interest on a simple average basis, the allocation to government fixed interest fell from 28.2 per cent to 27.0 per cent while the allocation to corporate fixed interest securities was roughly unchanged at 49.6 per cent. The average allocation to index-linked securities rose from 22.4 per cent to 23.4 per cent.
- As in the earlier Purple Books, more mature schemes tend to invest more heavily in gilts and fixed interest and less in equities.
- From 2012/13, the PPF levy takes into account investment risk being taken by schemes by adjusting the scheme assets for a market stress[8]. For the 2013/14 levy year, 365 schemes performed compulsory bespoke tests, 257 carried out voluntary tests and 5,528 schemes followed the standard test methodology.
- On an asset-weighted basis, the aggregate effect of the stress is about a 4 per cent reduction in asset values.

[7] Simple averages are defined as the mean without weighting for scheme size.

[8] Further details on the stress test methodology are provided on http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1314_Investment_Risk_Appendix.pdf

1.8 Overall Risk Developments

- The Long-Term Risk Model (LTRM) is the key tool that the Board of the 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 slight reduction in long-term risk to the Fund between end-March 2012 and end-March 2013, which was largely attributable to an improvement in the PPF's own funding level in the 12-month period.
- The PPF published its long-term funding strategy in August 2010. As part of this strategy the PPF aims to be self-sufficient by 2030 (i.e. fully funded, with zero exposure to market, inflation and interest-rate risk and some protection against claims and longevity risk). The funding strategy is reviewed annually to check whether the funding objective remains appropriate and whether the PPF is on track to achieve it.
- LTRM projections with a calculation date of 31 March 2013, suggest that the PPF has an 87 per cent probability of meeting this objective compared with 84 per cent one year earlier[9].
- Looking at shorter-term risk measures, the total weighted deficit (scheme sponsor one-year-ahead insolvency probability multiplied by scheme deficit) for deficit schemes decreased to £1.5 billion at end-March 2013 from £1.8 billion at end-March 2012.
- Schemes with sponsors in the manufacturing sector have the largest weighted deficit at around 43 per cent of the total.

1.9 Levy Payments

- For seven years, the PPF has collected a levy determined mainly by the risk schemes pose to the PPF. Over this period, it has collected a total of £4.0 billion.
- The dataset used in this chapter is based on 6,305 schemes which have been invoiced for £667 million in total. This is somewhat larger than the £643 million the PPF expects to collect[10].
- In 2012/13, the New Levy Framework[11] (NLF) was introduced, changing the way the Pension Protection Levy is calculated. Notable changes[12] include: the smoothing and stressing of assets and liabilities to reduce data volatility and account for investment risk, respectively; averaging insolvency risk over a 12-month period and using more current data.

[9] This probability is sensitive to a range of modelling assumptions. For a description of the modelling methodology and assumptions employed, see http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_Funding_Strategy_Document.pdf

[10] The £24 million difference between expected total levy and total levy invoiced relates to outstanding legal reviews, D&B appeals and schemes that have experienced an insolvency event.

[11] For an overview of the NLF, please visit: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/levy_policy_statement_May11.pdf

[12] For full details of the levy determination please visit: http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

- The £643 million the PPF expects to collect is significantly higher than the levy estimate of £550 million. The levy estimate is, in part, dependent on the amount of Deficit Reduction Contributions (DRC's) in the previous levy year. There were £5.4 billion fewer DRC's in the 12/13 levy year compared with 11/12, thus the levy now expected to be collected is significantly higher. The increase in levy expected to be collected is also due to the fall in gilt yields after the initial estimate was set, causing underfunding to worsen.
- In 2012/13, the number of schemes paying no risk-based levy (RBL) represented 19 per cent of total schemes, compared to 5 per cent for 2011/12. The significant increase in the number of schemes paying no RBL is largely due to the implementation of the NLF. As a result, in 2012/13 schemes that are fully funded, after taking account of their investment risk, pay no RBL. By comparison, in 2011/12 schemes had to be 155 per cent funded to pay no RBL.
- In 2012/13, 427 schemes had their RBL capped at 0.75 per cent of stressed, smoothed liabilities. This is 6.8 per cent of the total number of schemes, compared with 10.2 per cent in 2011/12. The liabilities of capped schemes equalled £11.3 billion or 1.1 per cent of total liabilities.
- The top 100 levy payers accounted for £287 million or 43.1 per cent of the total levy. In 2011/12 the top 100 levy payers accounted for 39.1 per cent of the total levy. The change in the proportion of levy that the top 100 levy payers account for is because of the reduction in scheme-based levy (SBL) as a percentage of total levy, from 20 per cent in 2011/12 to 11 per cent in 2012/13.
- Manufacturing represents the largest portion of the universe, accounting for 26.6 per cent of total liabilities (based on 5,571 comparable schemes across all Purple books) and pays 38.4 per cent of total levy. Finance, insurance and real estate accounts for 23.6 per cent of total liabilities and 14.0 per cent of total levy.

1.10 Schemes in Assessment

- Before transferring into the PPF, all schemes go through an assessment period to determine their ability to pay PPF levels of compensation[13]. The PPF aims to complete the assessment period for most schemes within two years.
- The PPF's Annual Report and Accounts 2012/13 show that there were 223 schemes in assessment as at 31 March 2013 compared with 300 as at 31 March 2012. Of the 223 figure, 187 were recognised in provisions on the PPF balance sheet, down from 251 at 31 March 2012. In these figures, all segregated parts of schemes have been counted as separate schemes.
- In this chapter, for analytical purposes, scheme sections and segregated parts are amalgamated at scheme level; after this amalgamation there were 172 schemes (with 111,000 members) in a PPF assessment period as at 31 March 2013, compared with 211 schemes (with 125,000 members) a year earlier. As a result, the number of schemes in assessment in this chapter is less than reported in the 2012/13 Annual Report and Accounts.
- The fall over the year reflects 77 new schemes entering and remaining in assessment, 84 schemes transferring into the PPF and 32 being rescued, rejected or withdrawn.

[13] See Chapter 2, The Data, for description of the eligibility test.

- As at 31 March 2013, the aggregate assets of schemes in assessment totalled £5.8 billion and their liabilities £7.6 billion on a s179 basis. Liabilities averaged £44.3 million per scheme and assets averaged £33.9 million.
- Schemes with liabilities below £5 million account for 37.8 per cent of schemes in assessment but only 2.0 per cent of the liabilities in assessment, while schemes with liabilities of over £100 million account for 5.2 per cent of schemes in assessment but 63.8 per cent of liabilities in assessment.
- The aggregate funding level (total assets divided by total liabilities) of the schemes in assessment as at 31 March 2013 was 76.6 per cent, below the aggregate funding levels of the schemes in the Purple 2013 dataset (84.1 per cent). However the funding level of schemes in assessment was higher than a year earlier (74.0 per cent).
- Schemes in assessment tended to hold less of their assets in gilts and fixed interest (30 per cent) than schemes in general (39 per cent). They held more in insurance policies (14 per cent compared with 2 per cent) which reflects the high share of insurance policies for small schemes.
- The Manufacturing sector accounted for 44.8 per cent of the companies sponsoring schemes in assessment. Both the Finance, insurance and real estate and Services sectors account for 14.0 per cent of sponsors of schemes in assessment.
- The representation of Manufacturing in schemes in assessment is greater than the sector's share of scheme sponsors in the PPF universe (30 per cent), which in turn is greater than the share of Manufacturing in the UK economy (12 per cent).
- Since 2005, there have been around 900 claims on the PPF with a total deficit value of £5.1 billion. Schemes with under 100 members accounted for 48.3 per cent of the claims since 2005. The Manufacturing sector contributed to 44.5 per cent of the total claims, higher than its contribution to the Purple 2012 dataset (29.5 per cent). The representation of the Services sector (14.5 per cent) was much lower than its share of scheme sponsors in the PPF universe (23.8 per cent).

1.11 PPF Compensation

- When an eligible Defined Benefit (DB) scheme transfers into the PPF, the PPF generally pays a starting level of compensation of 90 per cent of scheme pension (subject to a compensation cap) to members who were yet to reach their normal retirement age (NRA) at the date the scheme entered assessment. The PPF will generally pay a starting level of compensation equivalent to 100 per cent of scheme pension to those who were already over their NRA at the start of the assessment period[14].
- In 2012/13, the PPF made compensation payments of £331.9 million compared with £203.3 million in 2011/12.

[14] The annualised average rate of compensation is calculated by scaling up compensation over one month to reflect one year. This measure, which excludes lump sum payments, is used in order to accurately represent periodic compensation in payment at 31 March 2013.

- As at 31 March 2013, 80,665 members were in receipt of PPF compensation, up from 57,506 in the previous year. Average compensation in payment stood at £4,014[15] a year. The number of members with compensation not yet in payment (deferred members) as at 31 March 2013 totalled 91,353. For these members, the average accrued periodic compensation (before any prospective application of the compensation cap at NRA) was £3,311 a year.
- As at 31 March 2013, males constituted 61 per cent of pensioner and 67 per cent of deferred members.
- Spouses and other dependants account for 15 per cent of those currently in receipt of compensation. They receive 10 per cent of the total compensation in payment.
- Around 51 per cent of all compensation is attributable to former employees of the Manufacturing sector, down from 57 per cent the year before.
- The West Midlands region has the largest receipt of compensation, currently at 14 per cent of total pensioner compensation.
- The vast majority of members are in receipt of (or have accrued) compensation of less than 25 per cent of the compensation cap.
- The majority of compensation (and liabilities) was accrued in relation to service before 6 April 1997 and is, therefore, not subject to indexation. Compensation accrued on or after 6 April 1997 is increased each year in line with Consumer Price Inflation (CPI) capped at 2.5 per cent with a floor of 0 per cent.
- Deferred compensation is re-valued over the period to NRA in line with CPI capped at 5 per cent per annum (for compensation accrued before 6 April 2009) and CPI capped at 2.5 per cent per annum (for compensation accrued on or after 6 April 2009), subject to a floor of 0 per cent in both cases.
- In 2011, the government introduced new rules to move to the use of the CPI for the purpose of the indexation and revaluation (subject to the appropriate caps and floors as detailed above). Prior to 2011, increases were based on the Retail Prices Inflation index (RPI). These changes affect pension revaluation for deferred members from April 2011 and indexation for pensioners from January 2012. All figures of compensation presented in this chapter are, where relevant, based on historical RPI inflation indexation and revaluation.

1.12 Risk Reduction

- The total number of recognised Contingent Assets (CAs) in place for the 2013/14 levy year was around 830, somewhat lower than in the previous year. This reflected a fall in the number of Type A contingent assets (company guarantees). Firmer standards of validation introduced by the PPF have led to the decrease in the number of recognised Type A CAs.
- The number of Type B CAs (security over holdings of cash, real estate and or securities) rose slightly.

[15] Unless otherwise stated, totals and averages relating to pensioners include dependants.

- Schemes in the Purple 2013 dataset had by 10 April 2013 certified approximately £28.5 billion of Deficit Reduction Contributions (DRCs)[16] to reduce deficits for the 2013/14 levy year.
- Data from the Office for National Statistics (ONS) covering 350 large pension schemes (including 100 local authorities and some DC schemes) show that employers made £18.2 billion in special contributions in 2012 (i.e. those in excess of regular annual contributions), higher than £16.4 billion in 2011
- Analysis of the Pension Regulator's latest technical provisions and recovery plan data show that in Tranche 6[17], the average recovery plan length shortened to 7.5 years, the average funding ratio as measured by assets divided by technical provisions increased to 82.6 per cent, while technical provisions as a percentage of s179 liabilities dropped to 110.2 per cent[18].
- Quarterly F&C Asset Management surveys of volumes traded by investment banks suggest that:
  - £53.2 billion of liabilities were hedged using inflation derivatives in the year to the first quarter of 2013. Inflation hedging activity has fallen back from the record high observed in the second quarter of 2012.
  - £47.8 billion of liabilities were hedged using interest rate derivatives in the year to the first quarter of 2013, down 4 per cent from 2012.
- Total risk transfer business covering buy-outs, buy-ins and longevity hedges amounted to £50.5 billion between the end of 2007 and the first quarter of 2013. Just under half of these deals were longevity hedges.

[16] The certificates cover deficit reduction contributions made since the last scheme valuation.

[17] Tranche 6 covers schemes with valuation dates between 22 September 2010 and 21 September 2011.

[18] Note that the average funding ratio and the ratio of TPs to s179 liabilities only covers schemes which were in deficit on their TP basis.

2 The Data

2.1 Summary

- The main body of the analysis in Purple 2013 is based on new scheme returns for a dataset of 6,150 Defined Benefit (DB) schemes, covering 11.4 million memberships[19]. This represents around 99 per cent of PPF-eligible schemes and universe liabilities, slightly bigger than that used last year. Complete information is not yet available for the remaining schemes and, hence, these have been excluded from the sample.
- It is estimated that the eligible universe of schemes was around 6,225, a reduction from 6,460 in March 2012. The declining universe reflects schemes winding up, scheme mergers, schemes transferring into the PPF and block transfers.
- The fact that the dataset accounts for such a large proportion of the universe means that results for the whole universe would only be slightly different from the results presented in Purple 2013[20].
- As in previous Purple Books, the bulk of the analysis uses funding on a s179 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.

[19] A 'membership' is one individual's participation in one scheme. One individual can have multiple memberships. Hence the number of memberships exceeds the number of individuals.

[20] This point is illustrated in Annex A of Purple 2009. The summary statistics differed little between the sample and the extended 2008 datasets. The high coverage suggests a similar outcome in relation to the 2013 sample.

2.2 Introduction

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

- unfunded public sector schemes;
- some funded public sector schemes, for example, those 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:

http://www.pensionprotectionfund.org.uk/About-Us/eligibility/Pages/Eligibility.aspx

The information used in Chapters 3 to 8 of this publication comes from three primary sources, as described below. There may be some additions to the eligible universe in coming years given the Pensions Act 2011 clarification of the definition of money purchase benefits[21].

Scheme returns provided to the Pensions Regulator

Most of the analysis in this year's publication is based on new scheme returns issued in December 2012 and January 2013 and returned by 31 March 2013.

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. More information on DRCs and CAs is given in Chapter 12, Risk Reduction.

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

The D&B failure scores (ranging 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. Each score corresponds to a probability of insolvency, which is used in the PPF's risk-based levy calculations. A score of 1 represents the businesses with the highest probability of insolvency and 100 the lowest.

The data used in Chapters 9 (Levy Payments), 10 (Schemes in Assessment) and 11 (PPF Compensation) are derived from the PPF's business operations.

[21] Following the Bridge Judgement in 2011, section 29 of the Pensions Act 2011 clarified the definition of money purchase benefits. The new definition of money purchase benefits is restricted to schemes where no deficit can ever arise. Schemes that offer internal annuitisation or guaranteed investment returns up to retirement are examples of schemes that should now be treated as defined benefit instead of money purchase. After the regulations come into force, such schemes will become eligible for PPF protection and will be levied accordingly by the PPF. The same will apply to sections of schemes in the case of hybrid schemes. The detailed regulations will be put out for consultation by DWP in due course.

The Purple 2013 sample covers almost 99 per cent of the estimated number of PPF-eligible schemes; the bulk of missing schemes have under 1,000 members.

2.3 The PPF-eligible DB universe[22]

Table 2.1 | Distribution of schemes excluding those in assessment by number of members as at 31 March 2013

Number of members	Fewer than 100	100 – 999	1,000 – 4,999	5,000 – 9,999	10,000+	Total Schemes (final estimate)
Estimated Purple 2013 universe	2,263	2,752	807	193	210	6,225
Purple 2013 dataset	2,209	2,737	804	192	208	6,150
Purple 2013 dataset as % of 2013 PPF-eligible DB universe	97.6%	99.5%	99.6%	99.5%	99.0%	98.8%

Source: PPF / The Pensions Regulator

The Purple 2013 sample covers almost all scheme liabilities.

Table 2.2 | Distribution of s179 liabilities (£ billion) excluding those in assessment process by number of members as at 31 March 2013

Number of members	Fewer than 100	100 – 999	1,000 – 4,999	5,000 – 9,999	10,000+	Total Liabilities
Estimated Purple 2013 universe	13.7	120.4	211.8	163.0	839.3	1,348.2
Purple 2013 dataset	13.4	119.7	211.2	162.5	822.4	1,329.2
Purple 2013 dataset as a % of 2013 PPF-eligible universe	97.8%	99.4%	99.7%	99.7%	98.0%	98.6%

Source: PPF / The Pensions Regulator

[22] The universe estimates are based on an assessment of the number of additional schemes for which full data will become available.

The declining universe reflects schemes winding up, scheme mergers, schemes transferring into the PPF and block transfers.

Table 2.3 | Purple datasets and universe estimates*

Year	2010	2011	2012	2013
Estimated eligible DB universe	6,850	6,550	6,460	6,225
Purple dataset (as a percentage of final universe)	6,596 (96.3%)	6,432 (98.2%)	6,316 (97.8%)	6,150 (98.8%)

Source: PPF / The Pensions Regulator

* Since Purple 2010, schemes in assessment have been excluded from the universe and dataset estimates. This has been done so as to capture accurately the risk present in defined benefit schemes whose employers had not experienced insolvency.

2.4 Funding Schemes

As in previous Purple Books, the bulk of the analysis uses funding estimates on a section 179 (s179) 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. The PPF uses estimates of scheme funding on a s179 basis in the calculation of scheme-based levies. The analysis in Chapter 4, Scheme Funding, uses data that, as far as possible, reflects the position at 31 March 2013 with the s179 assumptions that came into effect on 1 April 2011.

As in previous years, actuaries at the PPF and the Pensions Regulator have also produced full buy-out estimates of the funding position for the Purple 2013 dataset.

3 Scheme Demographics

3.1 Summary

- The proportion of open schemes was broadly unchanged in 2013 at 14 per cent.
- 30 per cent of the defined benefit schemes in the sample are closed to future accrual, compared with 26 per cent in last year's sample.
- 65 per cent of memberships in the 2013 dataset are in schemes which are closed to new members, whereas less than a quarter are in open schemes.
- The largest proportions of open schemes are found in the 5,000 to 9,999 and greater than 10,000 members categories.
- Less than a quarter of memberships in the 2013 dataset are in open schemes.
- The proportion of memberships in schemes closed to future accrual increased by 4 percentage points in comparison to 2012. This uplift is partially due to improved handling of hybrid scheme statuses.
- The largest group of memberships is that of deferred memberships in schemes which are closed to new members.
- The proportion of active memberships fell by one percentage point between 2012 and 2013.
- The proportion of schemes classified as associated with the Services sector continues to increase.

3.2 Introduction

In this chapter the composition of the dataset used for this year's edition of the Purple Book is described. Figures for the total number of schemes and total scheme membership are included, with breakdowns by size, maturity, scheme status and industrial classification.

For each edition of the Purple Book, a dataset is collated including all appropriate schemes where scheme return information has been processed and cleaned. In subsequent months, more scheme returns are processed and cleaned and in 2006 and 2007 these were incorporated into the existing dataset to produce an 'extended' dataset. For 2006 and 2007, the increased coverage produced significantly different results to the original datasets. However, since then datasets have been much larger and the increased coverage made only a small difference. Accordingly comparisons are made with previous publications as follows:

- Purple 2006 and 2007 - extended dataset
- Purple 2008 to 2013 - original dataset

3.3 Scheme Status

Scheme status in this Purple Book is split between:

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

Because many larger employers have adopted the strategy of migrating their pension provision towards defined contribution (DC) by opening a DC section in an existing DB scheme, many hybrid schemes may accept new members but no longer allow new (or existing) members to accrue defined benefits.

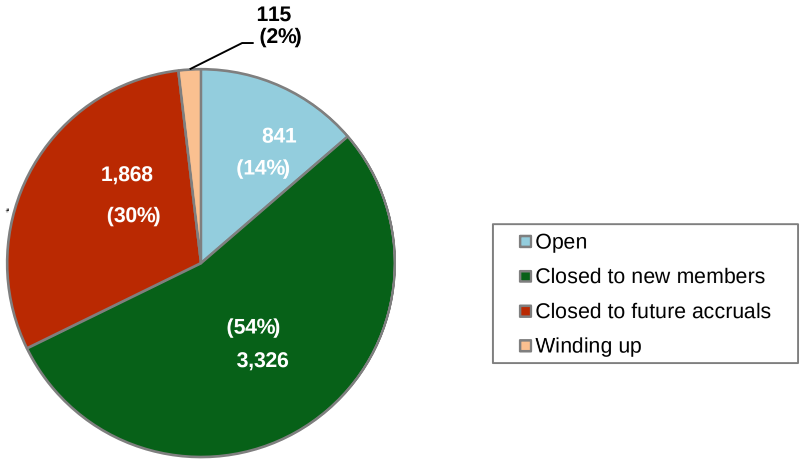
This has been handled differently across different editions of the Purple Book. In Purple 2006, 40 per cent of memberships were in the open category and 25 per cent were categorised as 'part open'. It was noted that the 'part open' category included a significant number of hybrids for which the DB element was closed. In Purple 2007, the 'part open' category was removed and 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 Purple 2009, we analysed the largest 100 schemes (by membership) in the hybrid category separately so as to adjust the information provided in the scheme return and remove potential misinterpretation caused by hybrid schemes with closed DB sections declaring themselves as open. Improved levels of information on hybrid schemes are now available from the scheme returns and since Purple 2010 we have been able to adjust hybrid statuses to 'closed' where DB provision is not available to new members. A total of 504 open hybrids had their status adjusted to 'closed' in 2010 covering approximately 1.7 million members.

In this edition of the Purple Book those hybrids which no longer admit new defined benefit accruing members are categorised as 'closed to new members'. In addition, where those schemes have no active defined benefit membership it is assumed that the scheme is closed to future accrual. 348 open hybrid schemes with approximately 1.3 million members were reclassified as closed to new members and a further 117 open hybrid schemes with approximately 231,000 members had their status amended to closed to future accrual.

The changes to the information available and consequent developing approach across the various editions of the Purple Book should be taken into account when comparing figures from different editions.

The proportion of open schemes was broadly unchanged in 2013 at 14 per cent.

Chart 3.1 | 2013 Distribution of schemes by status



Source: PPF / The Pensions Regulator

Table 3.1 | Distribution of schemes by status

30 per cent of the defined benefit schemes in the sample are closed to future accrual, compared with 26 per cent last year.

Percentage of schemes	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012	Purple 2013
Open	31%	27%	18%	16%	14%	14%
Closed to new members	50%	52%	58%	58%	57%	54%
Closed to future accruals	17%	19%	21%	24%	26%	30%
Winding up	2%	2%	2%	2%	2%	2%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: PPF / The Pensions Regulator

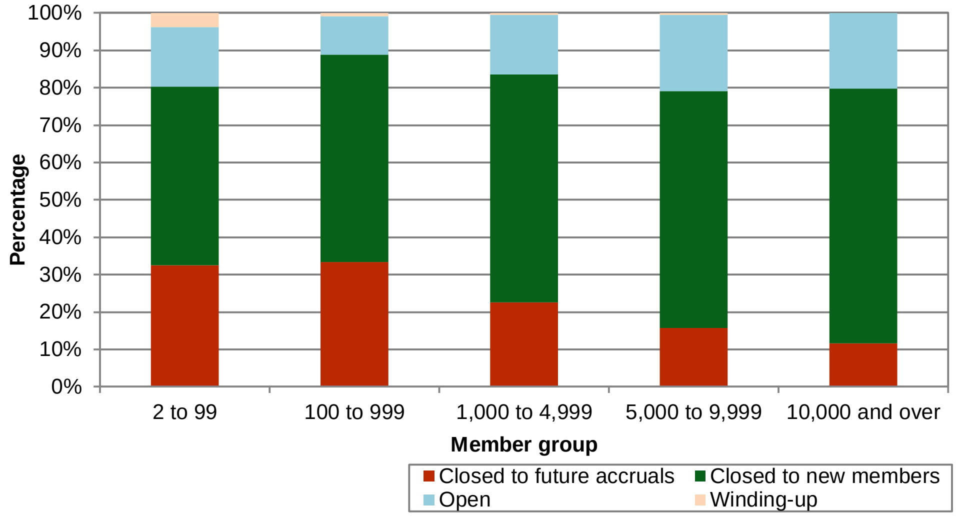
Table 3.2 | Distribution of schemes by status (excluding hybrid schemes)

Percentage of schemes	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012	Purple 2013
Open	26%	22%	21%	18%	17%	16%
Closed to new members	52%	55%	54%	54%	53%	51%
Closed to future accruals	19%	20%	23%	26%	29%	31%
Winding up	3%	3%	2%	2%	2%	2%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: PPF / The Pensions Regulator

The largest proportions of open schemes are found in the 5,000 to 9,999 and greater than 10,000 members categories.

Chart 3.2 | Scheme status by membership group

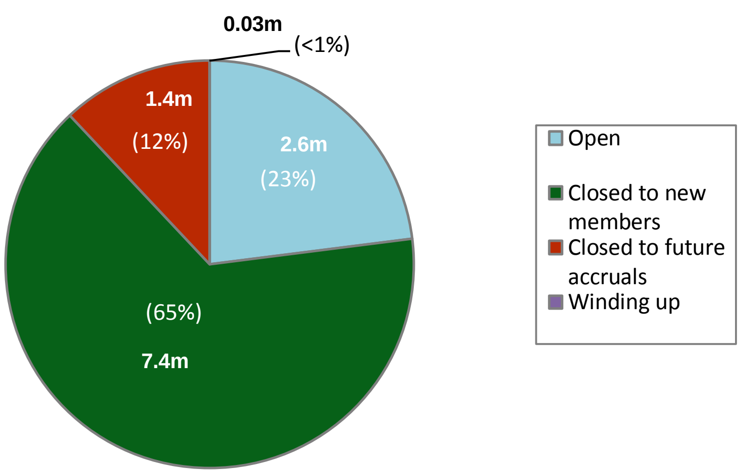


Source: PPF/The Pensions Regulator

3.4 Scheme status and scheme membership

Less than a quarter of memberships in the 2013 dataset are in open schemes.

Chart 3.3 | Percentage distribution of memberships by scheme status



Source: PPF/The Pensions Regulator

The proportion of memberships in schemes closed to future accrual increased by 4 percentage points in comparison to 2012. This is partially due to the improved handling of hybrid scheme statuses as described above.

Table 3.3 | Distribution of membership by status

Percentage of schemes	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012	Purple 2013
Open	44%	37%	34%	31%	28%	23%
Closed to new members	52%	59%	60%	62%	64%	65%
Closed to future accruals	4%	4%	5%	6%	8%	12%
Winding up	0%	0%	1%	0%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: PPF/The Pensions Regulator

Table 3.4 | Distribution of membership by status (excluding hybrid schemes)

Percentage of schemes	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012	Purple 2013
Open	46%	38%	38%	34%	30%	27%
Closed to new members	49%	57%	56%	58%	61%	61%
Closed to future accruals	4%	5%	6%	8%	9%	11%
Winding up	0%	0%	1%	0%	0%	0%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Source: PPF/The Pensions Regulator

3.5 Scheme membership

The largest group of memberships is that of deferred memberships in schemes which are closed to new members.

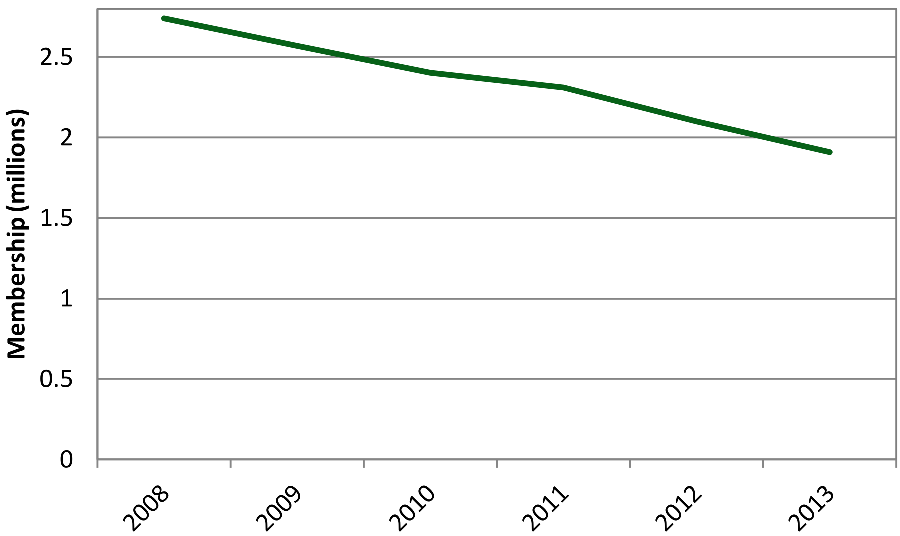
Table 3.5 | Membership by membership type and status, as at 31 March 2013*

	Open	Closed to new members	Closed to future accrual	Winding Up	**Total**
Active members (millions)	0.82	1.10	n/a	n/a	**1.91**
Deferred members (millions)	0.95	3.35	0.84	0.01	**5.15**
Pensioner members (millions)	0.85	2.94	0.56	0.01	**4.36**
Total	**2.62**	**7.38**	**1.40**	**0.03**	**11.43**

Source: PPF/The Pensions Regulator

*Note that for various reasons a small number of schemes have breakdowns of membership by active, deferred and pensioner types which do not match the total figure for membership. Therefore, totals may not match figures calculated from the component parts. Where members are listed as active in the information provided by closed schemes they are assumed to be deferred members.

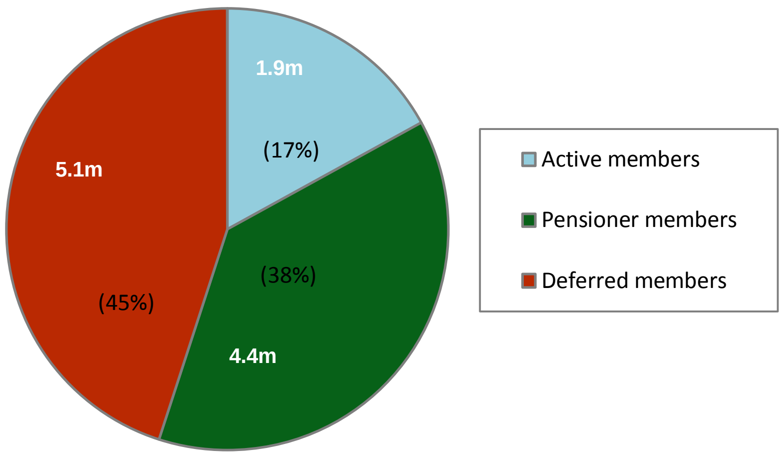
Chart 3.4 | Active memberships in Purple datasets



Source: PPF/The Pensions Regulator

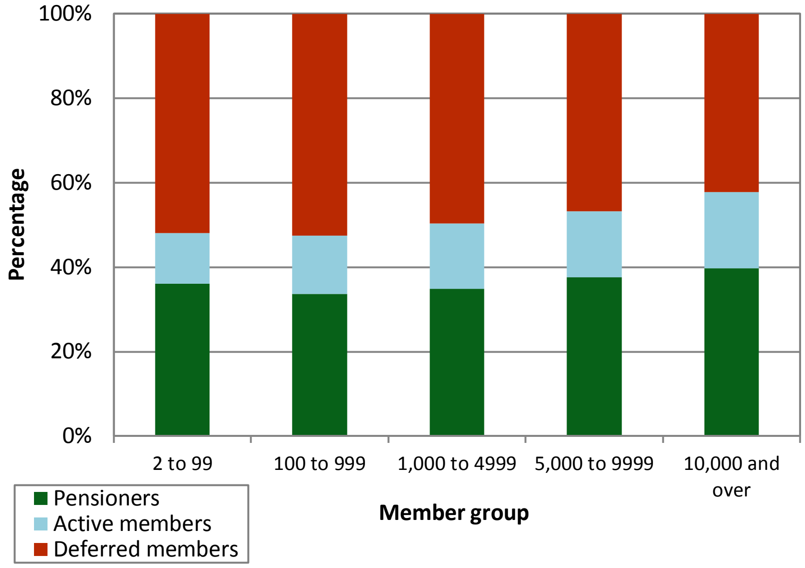
Chart 3.5 | Distribution of membership types in the Purple 2013 dataset

The proportion of active memberships fell by one percentage point between 2012 and 2013.



Source: PPF/The Pensions Regulator

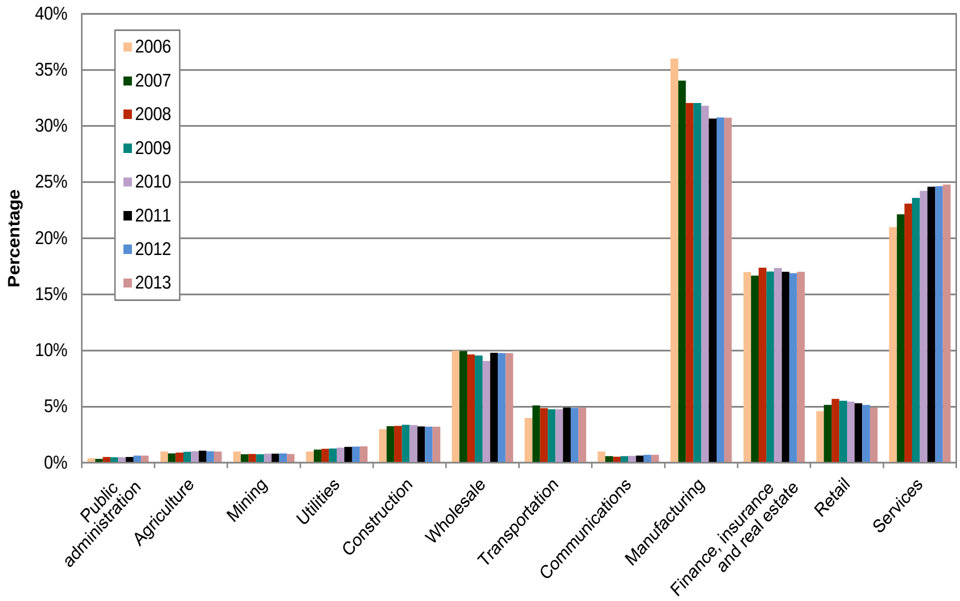
Chart 3.6 | Distribution of membership types by membership group in the Purple 2013 dataset



Sources: PPF/The Pensions Regulator

Chart 3.7 | Proportion of schemes by industry classification

The proportion of schemes classified as associated with the Services sector continues to increase (reflecting the reduction in manufacturing sponsors in the universe).



Source: PPF/The Pensions Regulator

4 Scheme Funding

4.1 Summary

- The aggregate s179 funding position of the schemes in the Purple 2013 dataset as at 31 March 2013 was a deficit of £210.8 billion.
- Between 2012 and 2013, the s179 funding ratio remained relatively stable, rising 1 percentage point, with closely matched rises in assets and liabilities.
- Estimated full buy-out liabilities have risen by 7 per cent compared to last year's figure, which was 18 per cent higher than the estimate for 2011.
- 62 per cent of liabilities and 63 per cent of assets are in the group of schemes with more than 10,000 members. This group comprises 3 per cent of the schemes in the sample.
- Smallest and largest membership groups tend to have better funding.
- The Membership Group 100-999 has the largest number of schemes (45 per cent of the total) and holds 9 per cent of the assets and liabilities.
- Proportionately more than half of the total assets and liabilities are in schemes where the s179 liabilities for pensions are between 25 per cent and 50 per cent of the total.
- On average, schemes which are closed to new members had higher s179 funding levels than those which were open or closed to future accrual.
- s179 liabilities pertaining to active memberships make up 9 per cent of the total s179 liabilities in the dataset.
- Proportionately more open schemes than closed to new member or closed to future accrual schemes were estimated as funded at greater than 100 per cent on a full buy-out basis.

4.2 Introduction

This chapter primarily deals with funding on a s179 basis as at 31 March 2013. Funding information supplied in scheme returns is processed so that the funding levels can be estimated at a common date, allowing consistent totals to be used. A scheme 100 per cent funded on a s179 basis is, broadly speaking, at the level which would have to be paid to an insurance company for it to take on the payment of PPF levels of compensation. In addition, full buy-out funding information is included.

The processing of s179 results allows for the different assumptions used for the s179 valuations at different effective dates. s179 figures form the basis for PPF levy calculations, subject to subsequent adjustments in defined circumstances. Estimates of liabilities on the full buy-out basis have used the same valuation assumptions but allow for the difference between the PPF level of compensation and full scheme benefits. The buy-out calculations are hypothetical, as only small numbers of buy-outs actually occur and the terms achieved are confidential and not necessarily obtainable for other schemes.

4.3 Overall Funding

The aggregate s179 funding position of the schemes in the Purple 2013 dataset as at 31 March 2013 was a deficit of £210.8 billion.

Table 4.1 | Key funding statistics as at 31 March 2013

	s179	Full buy-out
Total number of schemes	6,150	6,150
Total assets (£ billion)	1,118.5	1,118.5
Total liabilities (£ billion)	1,329.2	1,826.7
Aggregate funding position (£ billion)	-210.8	-708.2
Total balance for schemes in deficit (£ billion)	-245.8	-709.9
Total balance for schemes in surplus (£ billion)	35.0	1.7
Funding Level	84%	61%

Source: PPF / The Pensions Regulator

Between 2012 and 2013, the s179 funding ratio remained relatively stable, rising 1 percentage point, with closely matched rises in assets and liabilities.

Estimated full buy-out liabilities have risen by 7 per cent in 2013 compared to last year's figure, which was 18 per cent higher than the estimate for 2011.

Table 4.2 | Historical funding figures*

Year	No. of schemes	Total assets (£ billion)	S179				
			Liabilities (£ billion)	Aggregate funding (s179) (£ billion)	Deficit of schemes in deficit (£ billion)	Surplus of schemes in surplus (£ billion)	Funding ratio
2006	7,751	769.5	792.2	-22.7	-76.3	53.5	97%
2007	7,542	837.7	769.9	67.8	-46.8	96.5	109%
2008	6,897	837.2	842.3	-5.1	-67.7	62.6	99%
2009	6,885	780.4	981.0	-200.6	-216.7	16.0	80%
2010	6,596	926.2	887.9	38.3	-49.1	87.4	104%
2011	6,432	968.5	969.7	-1.2	-78.3	77.1	100%
2012	6,316	1,026.8	1,231.0	-204.2	-231.3	27.1	83%
2013	6,150	1,118.5	1,329.2	-210.8	-245.8	35.0	84%

Year	Full buy-out				
	Liabilities (£ billion)	Aggregate funding (£ billion)	Deficit of schemes in deficit (£ billion)	Surplus of schemes in surplus (£ billion)	Funding ratio
2006	1,273.5	-504.0	n/a	n/a	60%
2007	1,289.3	-451.6	n/a	n/a	65%
2008	1,356.0	-518.6	-520.4	1.6	62%
2009	1,351.6	-571.2	-572.3	1.1	58%
2010	1,359.2	-433.0	-436.5	3.5	68%
2011	1,435.5	-467.0	-470.7	3.7	67%
2012	1,702.6	-675.8	-677.3	1.5	60%
2013	1,826.7	-708.2	-709.9	1.7	61%

Source: PPF / The Pensions Regulator

*The figures shown above are the headline figures presented in the Purple Books 2008 to 2013. For 2006 and 2007 the figures are based on the extended Purple datasets published in the Annexes to Purple 2007 and 2008. Figures before 2010 include schemes in assessment.

4.4 Analysis of funding by scheme size

Table 4.3 | s179 funding levels by size of scheme membership, as at 31 March 2013

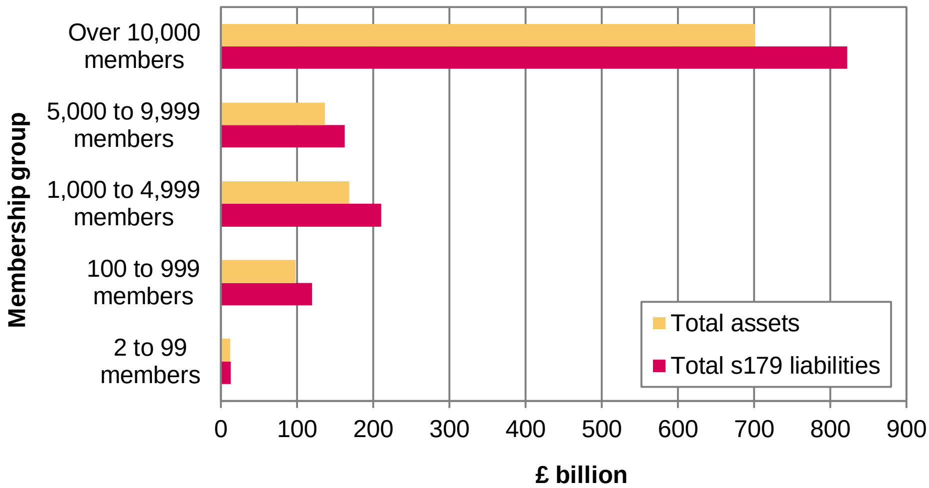
Membership group	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
2 to 99 members	2,210	12.8	13.4	-0.7	95%	91%
100 to 999 members	2,738	98.5	119.8	-21.3	82%	81%
1,000 to 4,999 members	803	168.8	211.1	-42.4	80%	79%
5,000 to 9,999 members	191	136.7	162.5	-25.8	84%	82%
Over 10,000 members	208	701.7	822.4	-120.6	85%	86%
Total	**6,150**	**1,118.5**	**1,329.2**	**-210.8**	**84%**	**84%**

Source: PPF / The Pensions Regulator

*Note that schemes with unusual funding arrangements were excluded from the simple averages in this table to avoid distortions. 20 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

62 per cent of liabilities and 63 per cent of assets are in the group of schemes with more than 10,000 members. This group comprises 3 per cent of the schemes in the sample.

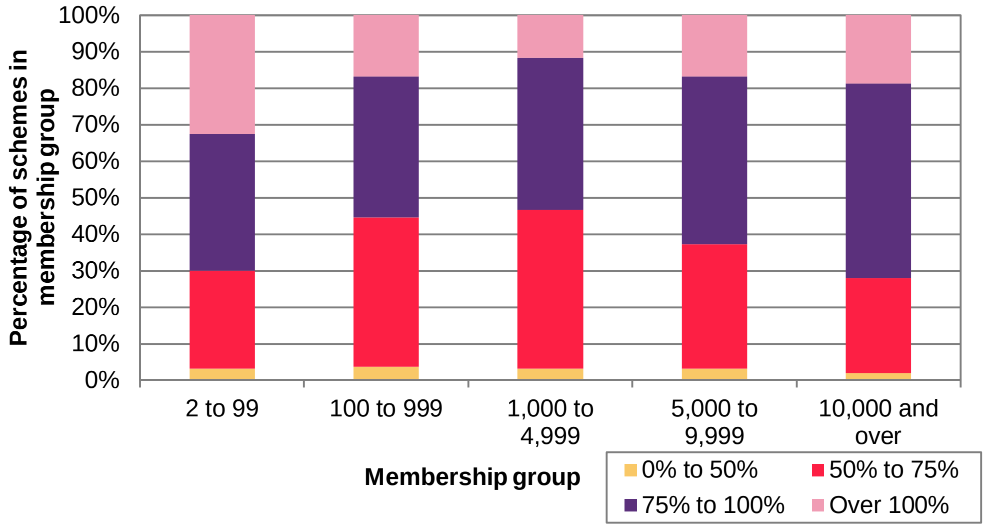
Chart 4.1 | Total assets and liabilities on a s179 basis as at 31 March 2013



Source: PPF / The Pensions Regulator

Smallest and largest membership groups tend to have better funding.

Chart 4.2 | Distribution of s179 funding levels by size of scheme membership as at 31 March 2013



Source: PPF / The Pensions Regulator

The Membership group 100-999 has the largest number of schemes (45 per cent of the total) and holds 9 per cent of the assets and liabilities.

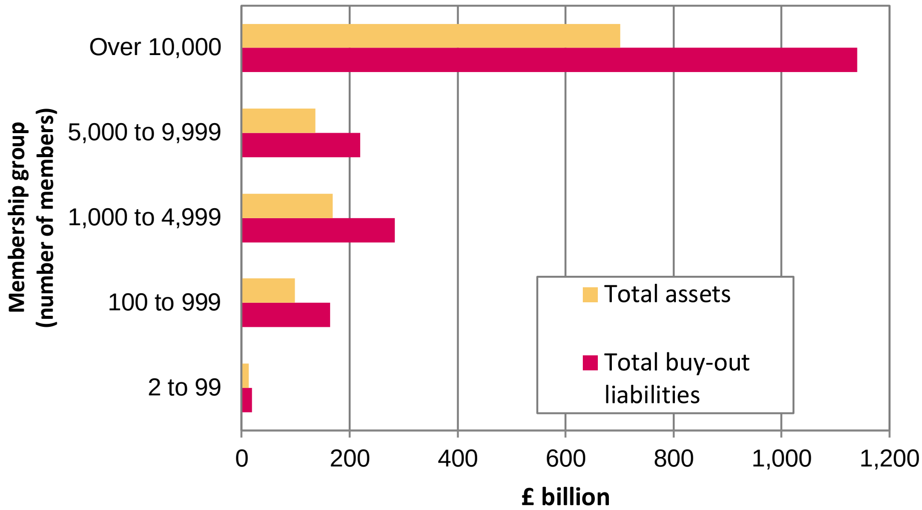
Table 4.4 | Estimated full buy-out levels by size of scheme membership as at 31 March 2013

Membership group	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
2 to 99 members	2,210	12.8	18.8	-6.1	68%	67%
100 to 999 members	2,738	98.5	163.7	-65.2	60%	60%
1,000 to 4,999 members	803	168.8	284.1	-115.3	59%	59%
5,000 to 9,999 members	191	136.7	219.6	-82.9	62%	61%
Over 10,000 members	208	701.7	1,140.5	-438.7	62%	63%
Total	**6,150**	**1,118.5**	**1,826.7**	**-708.2**	**61%**	**62%**

Source: PPF / The Pensions Regulator

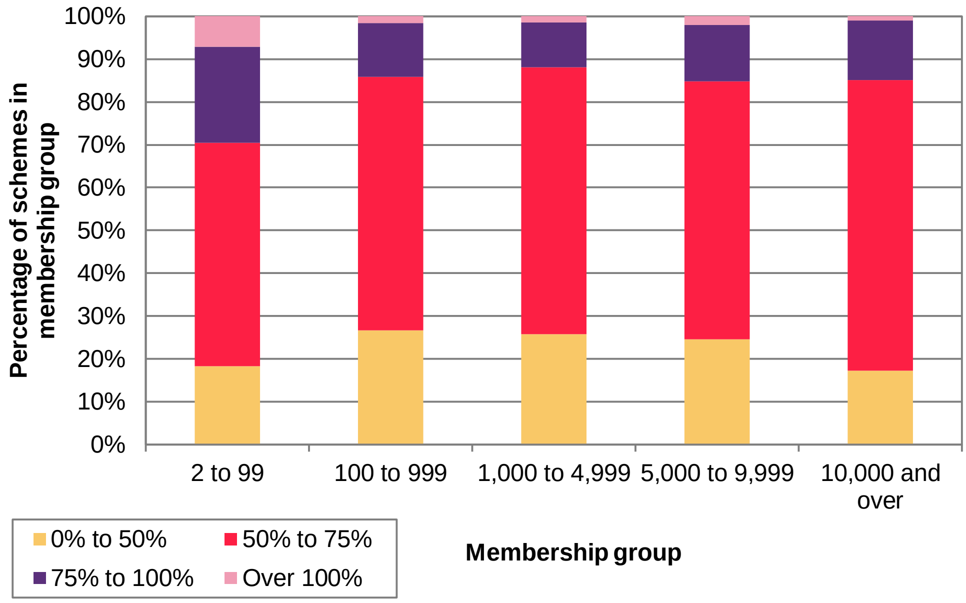
*Note that schemes with unusual funding levels were excluded from the simple averages in this table to avoid distortions. 20 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

Chart 4.3 | Total assets and liabilities by size of scheme membership on an estimated full buy-out basis as at 31 March 2013



Source: PPF / The Pensions Regulator

Chart 4.4 | Distribution of buy-out funding levels by size of scheme membership as at 31 March 2013



Source: PPF / The Pensions Regulator

4.5 Analysis of funding by scheme maturity

Table 4.5 | Analysis of s179 funding levels by scheme maturity as at 31 March 2013

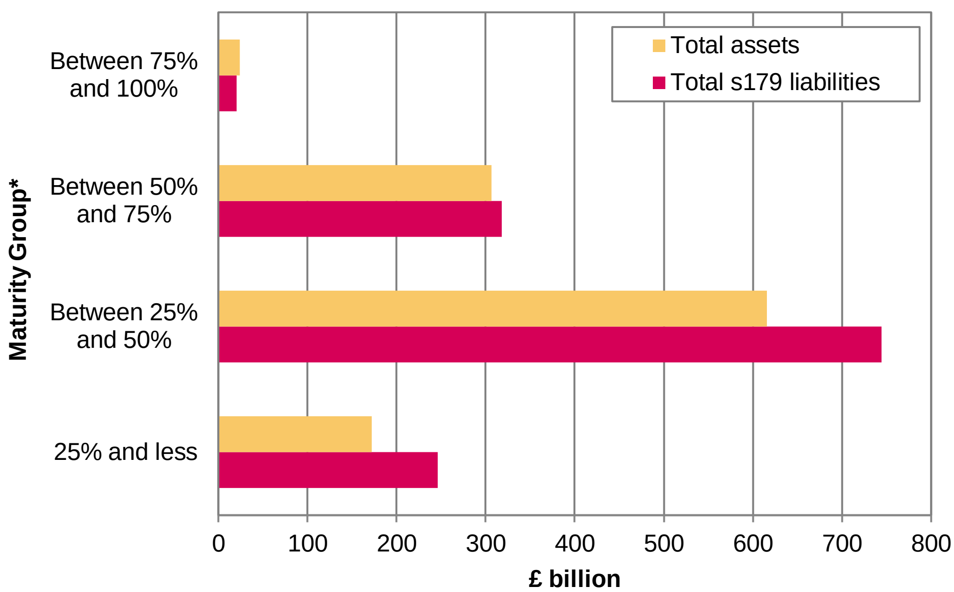
Proportion of s179 liabilities relating to pensioners	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
25% and less	2,329	172.2	246.0	-73.9	70%	77%
Between 25% and 50%	2,745	616.0	744.7	-128.7	83%	83%
Between 50% and 75%	896	306.3	318.1	-11.8	96%	101%
Between 75% and 100%	180	24.1	20.4	3.6	118%	121%
Total	**6,150**	**1,118.5**	**1,329.2**	**-210.8**	**84%**	**84%**

Source: PPF / The Pensions Regulator

*Note that schemes with unusual funding levels were excluded from the simple averages in this table to avoid distortions. 20 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

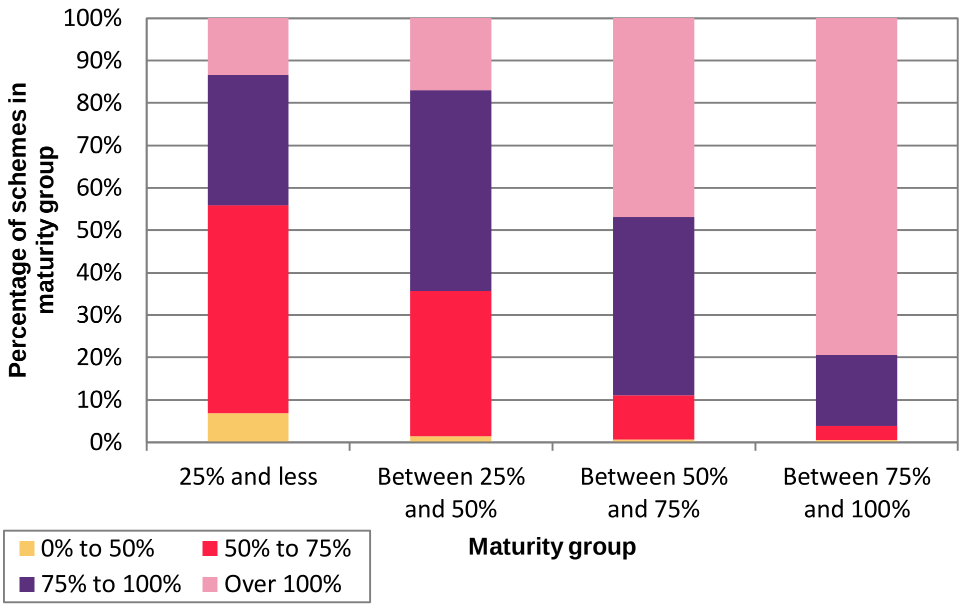
Proportionately more than half of the total assets and liabilities are in schemes where the s179 liabilities for pensions are between 25 per cent and 50 per cent of the total.

Chart 4.5 | Distribution of s179 assets and liabilities by scheme maturity as at 31 March 2013



*Maturity group is the proportion of s179 assets and liabilities relating to pensioners.

Chart 4.6 | Distribution of funding levels on a s179 basis by scheme maturity as at 31 March 2013



Source: PPF / The Pensions Regulator

4.6 Analysis of funding by scheme status

On average, schemes which are closed to new members had higher s179 average funding levels than those which were open or closed to future accrual.

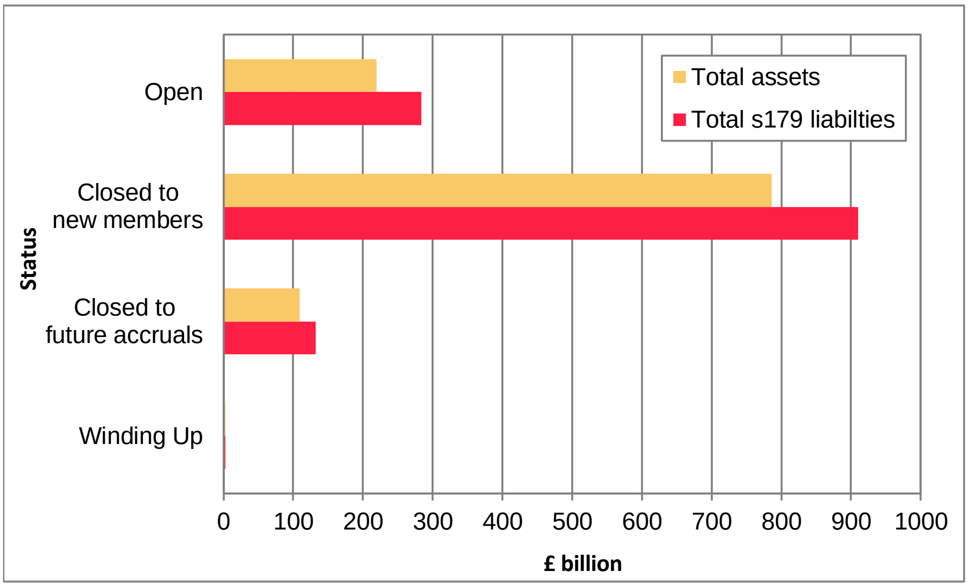
Table 4.6 | Analysis of s179 funding levels by scheme status as at 31 March 2013

Scheme status	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level
Open	841	219.6	283.5	-63.9	77%	82%
Closed to new members	3,326	786.5	910.5	-123.9	86%	85%
Closed to future accruals	1,868	109.2	132.4	-23.2	82%	83%
Winding Up	115	3.1	2.8	0.3	110%	108%
Total	**6,150**	**1,118.5**	**1,329.2**	**-210.8**	**84%**	**84%**

Source: PPF / The Pensions Regulator

s179 liabilities pertaining to active memberships make up 9 per cent of the total s179 liabilities in the dataset.

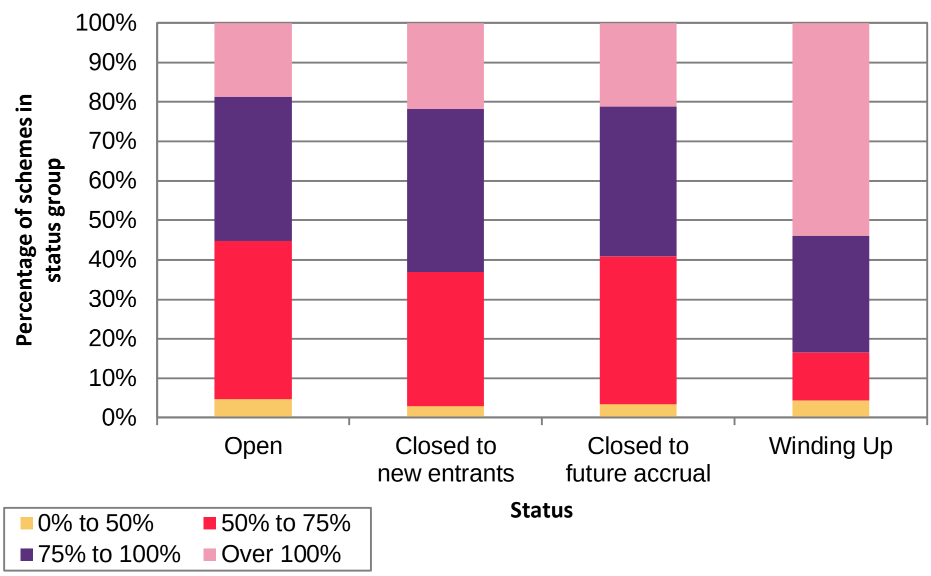
Chart 4.7 | Distribution of s179 assets and liabilities by scheme status as at 31 March 2013*



Source: PPF / The Pensions Regulator

*Note the proportionately low winding up figures can be seen in Table 4.6

Chart 4.8 | Distribution of schemes by s179 funding levels within scheme status groups as at 31 March 2013



Source: PPF / The Pensions Regulator

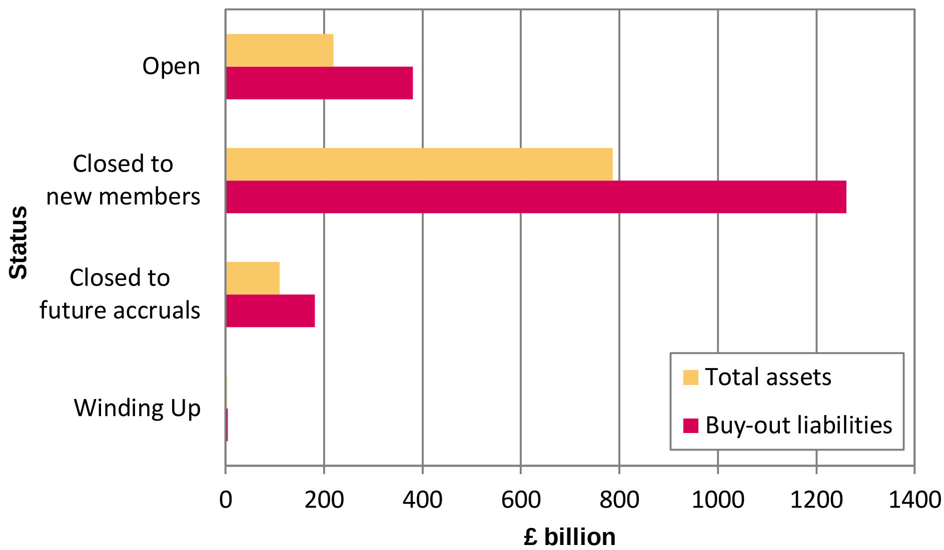
Table 4.7 | Analysis of estimated full buy-out funding levels by scheme status as at 31 March 2013

Scheme status	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
Open	841	219.6	380.3	-160.6	58%	64%
Closed to new members	3,326	786.5	1,260.6	-474.1	62%	62%
Closed to future accruals	1,868	109.2	181.8	-72.6	60%	61%
Winding Up	115	3.1	4.0	-0.9	78%	81%
Total	**6,150**	**1,118.50**	**1,826.7**	**-708.2**	**61%**	**62%**

Source: PPF / The Pensions Regulator

*Note that schemes with unusual funding arrangements were excluded from the simple averages in this table to avoid distortions. 20 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

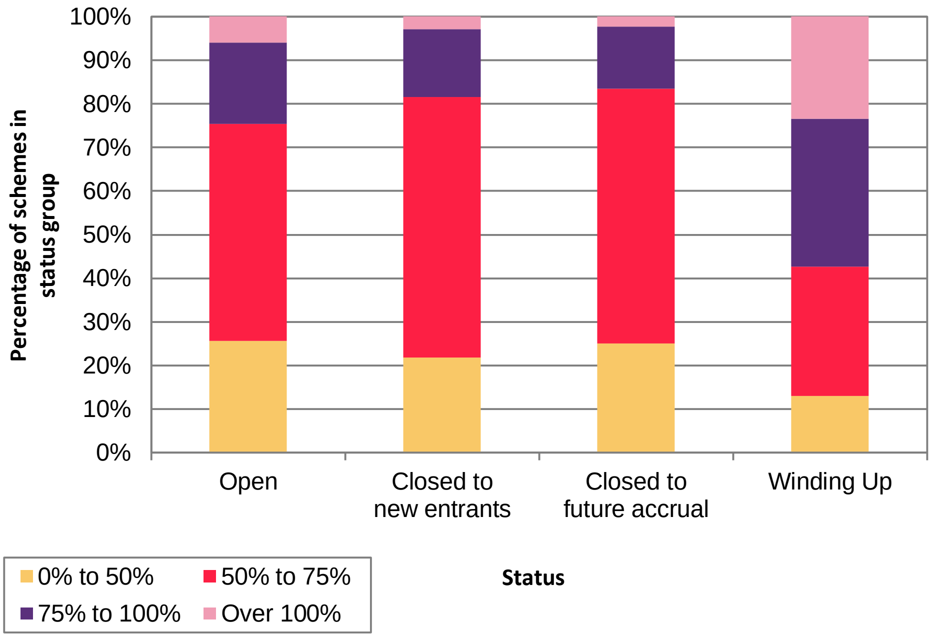
Chart 4.9 | Distribution of estimated full buy-out assets and liabilities by scheme status as at 31 March 2013



Source: PPF / The Pensions Regulator
**Note the proportionately low winding up figures can be seen in Table 4.7.

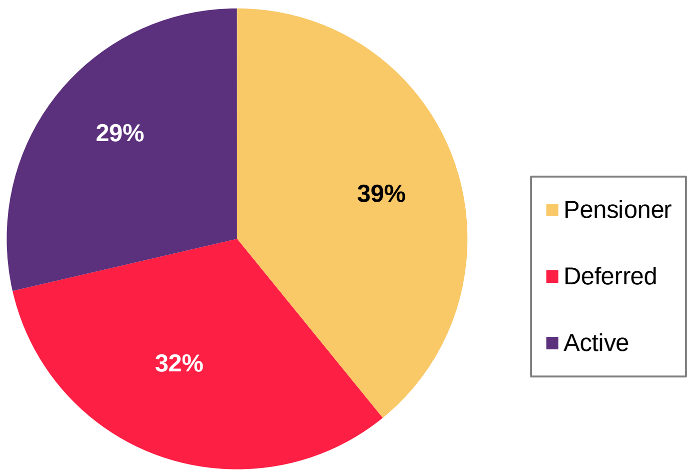
Proportionately more open schemes than closed to new member or closed to future accrual schemes were estimated as funded at greater than 100 per cent on a full buy-out basis.

Chart 4.10 | Distribution of estimated full buy-out funding levels by scheme status groups as at 31 March 2013



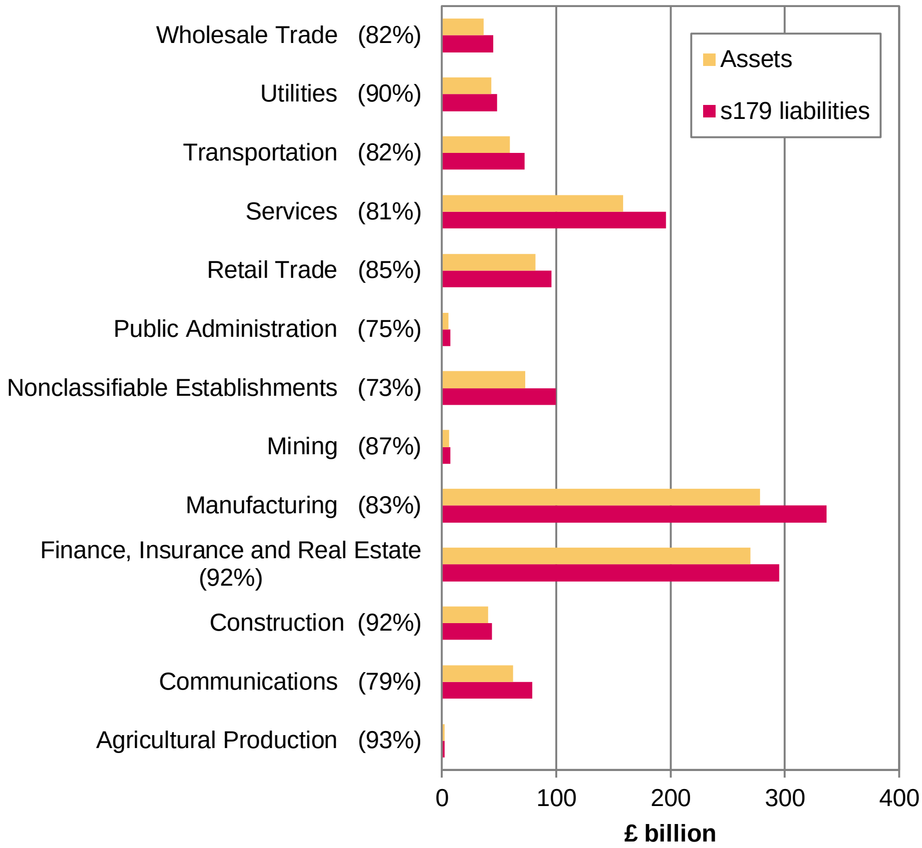
Source: PPF / The Pensions Regulator

Chart 4.11 | Purple dataset s179 liabilities by active, deferred and pensioner members



Source: PPF / The Pensions Regulator

Chart 4.12 | s179 assets and liabilities by industry with overall funding level as at 31 March 2013



Source: PPF / The Pensions Regulator

5 Funding Sensitivities

5.1 Summary

- All the funding sensitivities in this chapter are on a s179 basis, taking the funding position as at 31 March 2013[23] as the base and using the Purple 2013 dataset. The sensitivities do not take into account the use of derivative instruments to hedge changes in interest rates, inflation, equity levels or longevity.
- The aggregate balance has varied by around £485 billion (with the greatest surplus in June 2007 at £193 billion and the greatest deficit in May 2012 at £293 billion).
- Changes in market conditions and financial and demographic assumptions since January 2003 have caused the monthly aggregate funding ratio of pension schemes to vary by 52 percentage points. The highest funding ratio was in June 2007 at 130 per cent and the lowest ratio of 78 per cent was in May 2012.
- The assumptions were changed on 31 March 2008, 31 October 2009 and 1 April 2011. The first two changes improved scheme funding by around £41 billion (5 per cent of liabilities) and £69 billion (8 per cent of liabilities) respectively, while the third worsened scheme funding by around £27 billion[24] (3 per cent of liabilities).
- The estimated number of schemes in deficit on a s179 basis was at its lowest point in June 2007 at 1,094 schemes (18 per cent of the dataset) and peaked in May 2012 at 5,183 (84 per cent).
- Since end-March 2013, aggregate scheme funding has risen from 84 per cent to 93 per cent in September 2013.
- A 0.1 percentage point (10 basis point) rise in gilt yields decreases the end-March 2013 aggregate deficit by £21.5 billion from £210.8 billion to £189.3 billion while a 2.5 per cent rise in equity prices would reduce the aggregate deficit by £10.6 billion.
- A 0.1 percentage point (10 basis point) reduction in gilt yields raises aggregate scheme liabilities by 2.0 per cent and raises aggregate scheme assets by 0.5 per cent. A 2.5 per cent rise in equity markets raises scheme assets by 0.9 per cent.

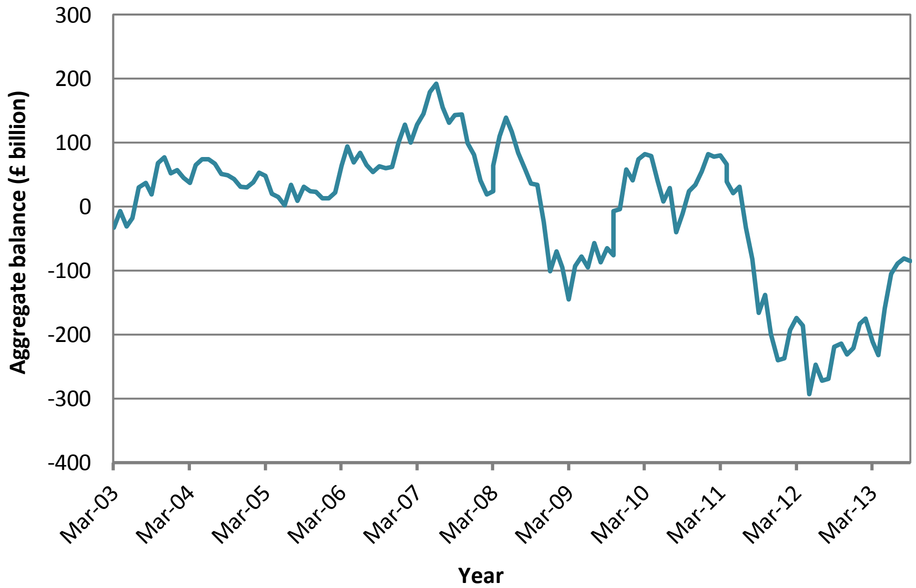
[23] Using the latest valuation guidance as in Chapter 4 , please follow the link for more information http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section_179_Assumptions_Guidance_VA6_Apr11.pdf

[24] For more information see PPF 7800 January 2009, November 2009 and May 2011
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF%207800%20January%2009.pdf
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_7800_November_09.pdf
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_7800_May_11.pdf

- If the assumed rate of inflation increases by 0.1 per cent, with nominal interest rates unchanged, then the s179 liabilities for aggregate schemes increases by approximately 0.8 per cent or £10.5 billion.
- An increase in longevity such that the experienced mortality is now equivalent to that of an individual two years younger would increase aggregate schemes' liabilities by 6.1 per cent, or £80.6 billion.

5.2 Impact of changes in markets and assumptions since 2003

Chart 5.1 | Estimated s179 aggregate balance (assets less liabilities) of pension schemes in the Purple 2013 dataset

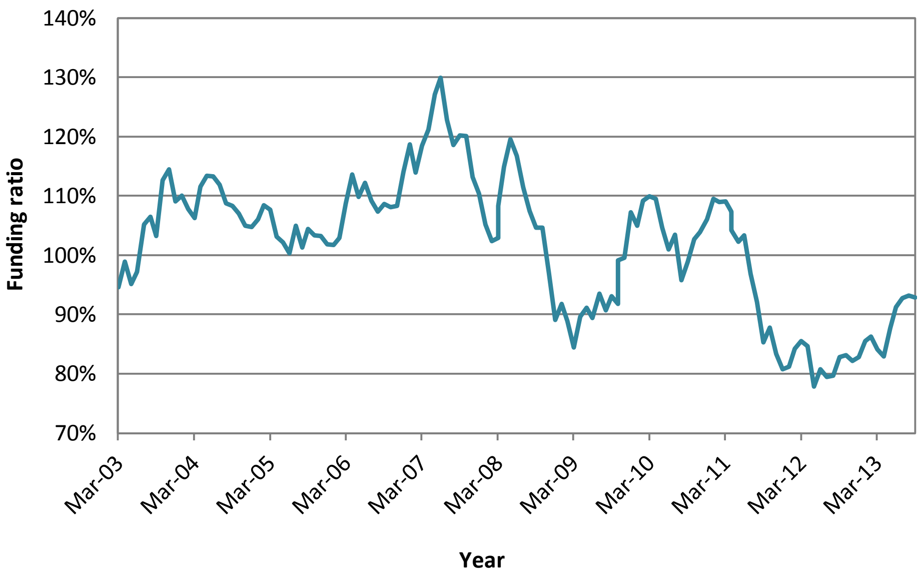


Source: PPF / The Pensions Regulator

Market movements have resulted in a variation in the s179 aggregate balance of around £485 billion with the largest surplus of £193 billion in June 2007 and the largest deficit of £293 billion in May 2012.

Market movements have resulted in a variation in the funding ratio of around 52 percentage points with the highest ratio of 130 per cent in June 2007 and the lowest ratio of 78 per cent in May 2012.

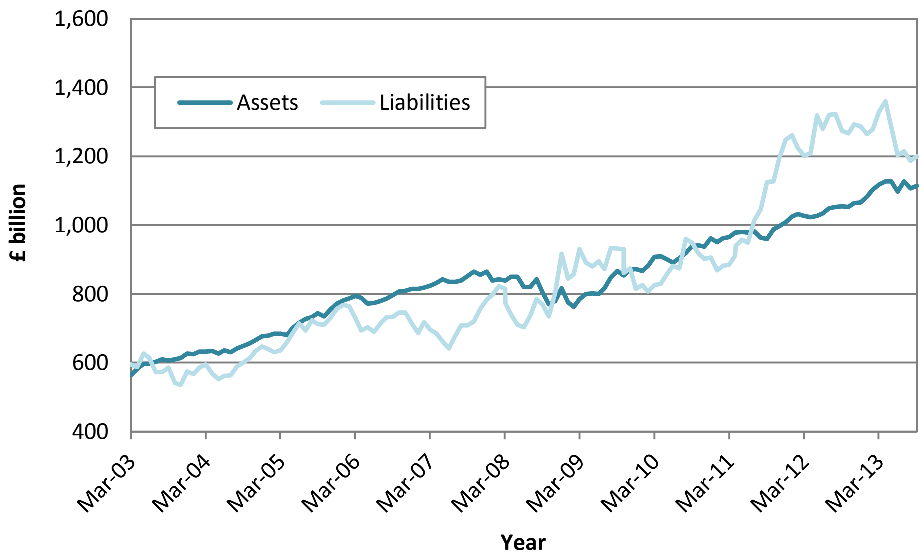
Chart 5.2 | Estimated s179 funding ratio (assets as a percentage of liabilities) of pension schemes in the Purple 2013 dataset



Source: PPF / The Pensions Regulator

Total assets of schemes fell by £4.6 billion between March and September 2013 whilst liabilities fell by £130.2 billion over the same period.

Chart 5.3 | Estimated movements in assets and s179 liabilities of schemes in the Purple 2013 dataset



Source: PPF / The Pensions Regulator

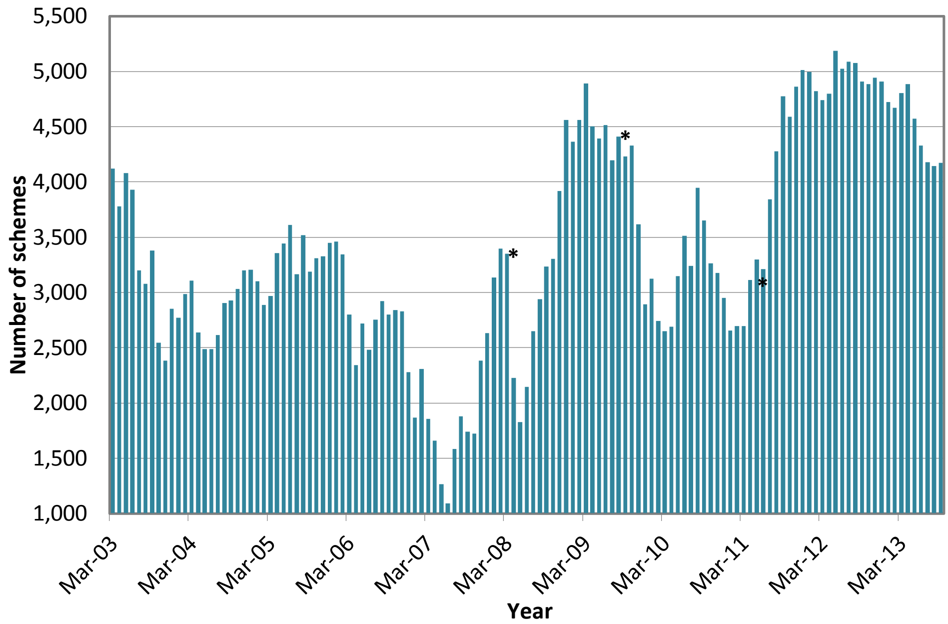
When scheme funding was at its lowest in May 2012, the aggregate deficit of the schemes in deficit was £313 billion.

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

Source: PPF / The Pensions Regulator

In September 2013, there were estimated to have been around 4,173 schemes in deficit (68 per cent of the total). This is 1,010 schemes less than the peak in May 2012.

Chart 5.5 | Estimated number of schemes in deficit each month in the Purple 2013 dataset*

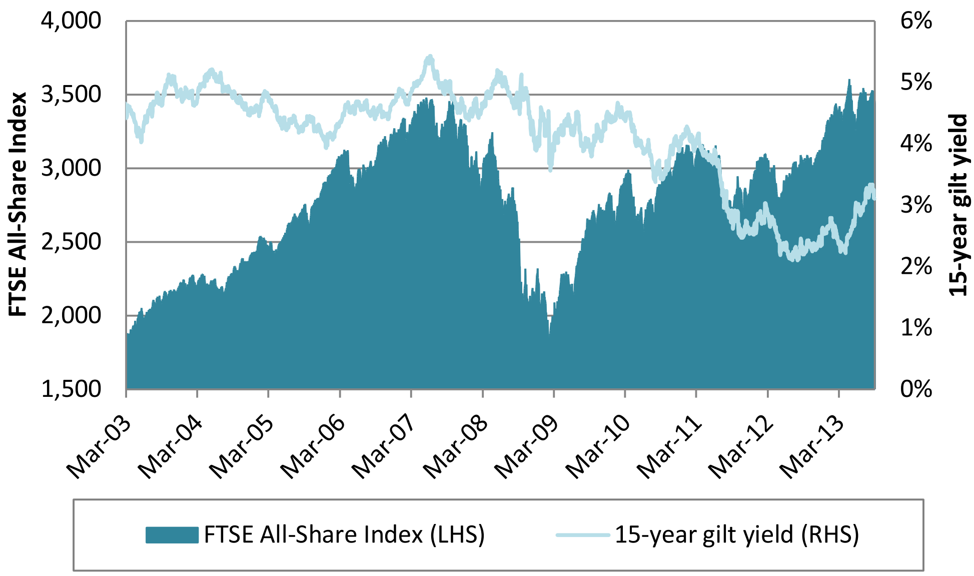


Source: PPF / The Pensions Regulator

*Note: the changes to assumptions in March 2008 and October 2009 reduced the number of schemes in deficit by 490 and 667 respectively, while the changes in assumptions in April 2011 raised the number of schemes in deficit by 281.

The highest funding ratio in June 2007 reflected high levels for both gilt yields and equity markets, while the lowest funding ratio in May 2012 mainly reflected low levels for 15-year gilt yields.

Chart 5.6 | Movements in stock markets and gilt yields



Source: Bloomberg

A 0.1 percentage point (10 basis point) rise in gilt yields would have improved the end March 2013 s179 aggregate deficit by £21.5 billion from £210.8 billion (bold) to £189.3 billion (shaded), somewhat larger than the impact of 2.5 per cent increase in equity prices which result in a deficit of £200.2 billion (shaded).

5.3 Funding Sensitivities: rules of thumb

Table 5.1 | Impact of changes in gilt yields and equity prices on s179 funding levels from a base aggregate deficit of £210.8 billion, as at 31 March 2013

Assets less s179 liabilities (£ billion)							
Movement in equity prices	Movement in gilt yields						
	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp
7.5%	-243.1	-221.8	-200.5	-179.1	-157.7	-136.2	-114.7
5.0%	-253.6	-232.3	-211.0	-189.6	-168.2	-146.8	-125.3
2.5%	-264.2	-242.9	-221.6	-200.2	-178.8	-157.3	-135.8
0.0%	-274.7	-253.4	-232.1	**-210.8**	-189.3	-167.9	-146.4
-2.5%	-285.3	-264.0	-242.7	-221.3	-199.9	-178.4	-156.9
-5.0%	-295.8	-274.6	-253.2	-231.9	-210.4	-189.0	-167.5
-7.5%	-306.4	-285.1	-263.8	-242.4	-221.0	-199.5	-178.0

Source: PPF / The Pensions Regulator

A 2.5 per cent increase in equity prices would have raised scheme assets by 0.9 per cent, the same as the impact of a 0.2 per cent fall in gilt yields.

A 0.1 percentage point (10 basis points) reduction or increase in gilt yields increases or reduces s179 liabilities by around 2 per cent.

Table 5.2 | Impact of changes in gilt yields and equity prices on assets from a base of 100, as at 31 March 2013

Assets relative to a base of 100							
Movement in equity prices	Movement in gilt yields						
	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp
7.5%	104.2	103.8	103.3	102.8	102.4	101.9	101.5
5.0%	103.3	102.8	102.3	101.9	101.4	101.0	100.5
2.5%	102.3	101.9	101.4	100.9	100.5	100.0	99.6
0.0%	101.4	100.9	100.5	**100.0**	99.5	99.1	98.6
-2.5%	100.5	100.0	99.5	99.1	98.6	98.1	97.7
-5.0%	99.5	99.0	98.6	98.1	97.7	97.2	96.8
-7.5%	98.6	98.1	97.6	97.2	96.7	96.3	95.8

Source: PPF / The Pensions Regulator

Table 5.3 | Impact of changes in gilt yields on s179 liabilities from a base of 100, as at 31 March 2013

s179 liabilities relative to a base of 100							
s179 liabilities relative to March level (=100)	Movement in gilts yields						
	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp
	106.0	104.0	102.0	**100.0**	98.0	96.0	94.0

Source: PPF / The Pensions Regulator

If the assumed rate of inflation increases by 0.1 percentage points and nominal rates remain unchanged then the s179 liabilities rise by 0.8 per cent or £10.5 billion.

An increase in longevity such that experienced mortality is now equivalent to that of an individual two years younger would cause total scheme s179 liabilities to increase by £80.6 billion, or 6.1 per cent.

Table 5.4 | Impact of changes in gilt yields and equity prices on the s179 funding position from a base total deficit of £245.8 billion, excluding schemes in surplus, as at 31 March 2013

Assets less s179 liabilities (£ billion)							
Movement in equity prices	Movement in gilt yields						
	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp
7.5%	-277.4	-258.5	-239.5	-220.6	-201.6	-182.6	-163.5
5.0%	-285.8	-266.9	-247.9	-229.0	-210.0	-191.0	-171.9
2.5%	-294.2	-275.3	-256.3	-237.4	-218.4	-199.4	-180.3
0.0%	-302.6	-283.7	-264.8	**-245.8**	-226.8	-207.8	-188.7
-2.5%	-311.0	-292.1	-273.2	-254.2	-235.2	-216.2	-197.1
-5.0%	-319.4	-300.5	-281.6	-262.6	-243.6	-224.6	-205.5
-7.5%	-327.8	-308.9	-290.0	-271.0	-252.0	-233.0	-213.9

Source: PPF / The Pensions Regulator

Table 5.5 | Impact of changes in the rate of RPI inflation on s179 liabilities (base = £1,329.2 billion), as at 31 March 2013

s179 liabilities				
	Change in nominal yields		Change in real yields	
	-0.1pp	0.1pp	-0.1pp	0.1pp
£ billion	1,346.3	1,312.2	1,339.7	1,318.8
Percentage change	1.3%	-1.3%	0.8%	-0.8%

Source: PPF / The Pensions Regulator

Table 5.6 | Impact of changes in longevity assumptions on s179 liabilities (base = £1,329.2 billion), as at 31 March 2013

	s179 liabilities (£ billion)	% Change from base
Age Rating + 2 years	1,248.2	-6.1%
Age Rating - 2 years	1,409.8	6.1%

Source: PPF / The Pensions Regulator

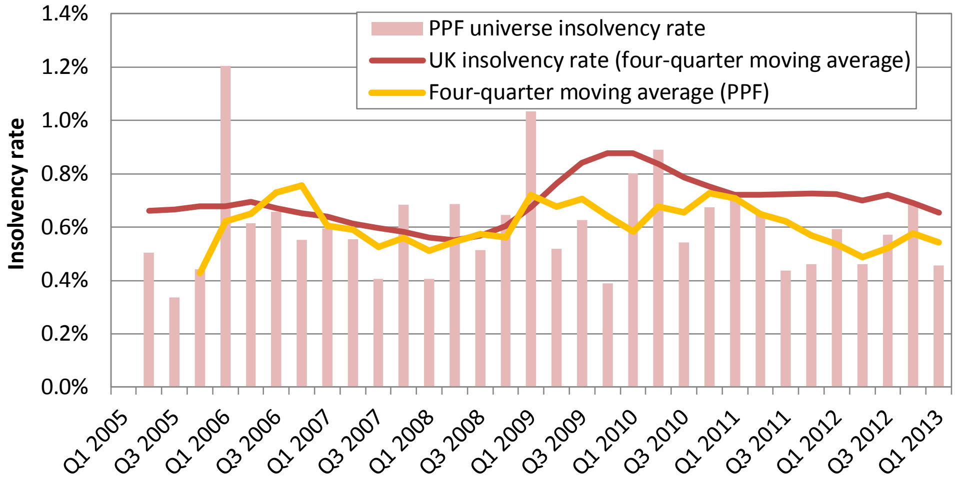
6 Insolvency Risk

6.1 Summary

- The insolvency rate of the PPF universe (number of insolvency events for sponsors of PPF eligible schemes divided by the total number of scheme sponsors) rose less than the national insolvency rate during the financial crisis. Since the end of the crisis it has fallen below pre-crisis levels, whereas the national insolvency rate remains above pre-crisis levels.
- Over the first eight months of 2013, the liability-weighted insolvency probability of the 500 schemes to which the PPF has the largest exposure (in terms of scheme underfunding adjusted for the volatility of its assets) has remained broadly unchanged at just under 0.7 per cent.
- The UK economy came out of recession in the fourth quarter of 2009. GDP then rose strongly until the third quarter of 2010. The euro area sovereign debt crisis then intensified and began to take its toll on the UK economy, resulting in fairly stagnant activity through 2012. GDP growth has picked up in the first three quarters of 2013.
- The 2008/09 recession resulted in a large rise in the total level of corporate liquidations in England and Wales – up from 3,226 in the first quarter of 2008 to a peak of 5,033 in the second quarter of 2009, an increase of 56 per cent. In the second quarter of 2013, a total of 3,978 liquidations were recorded.
- The rise in company liquidations in the 2008-09 recession was much smaller than in the early 90s contraction, when liquidations more than doubled. This might be the result of a combination of two factors: record low interest rates on one side, allowing companies to meet interest expenses, and a marked reluctance of banks to crystallise losses at a time when the pressure to repair balance sheets was high.

The insolvency rate of the PPF universe rose less than the national insolvency rate during the financial crisis. Since the end of the crisis it has fallen below pre-crisis levels, whereas the national insolvency rate remains above pre-crisis levels.

Chart 6.1 | PPF universe and UK insolvency rates*

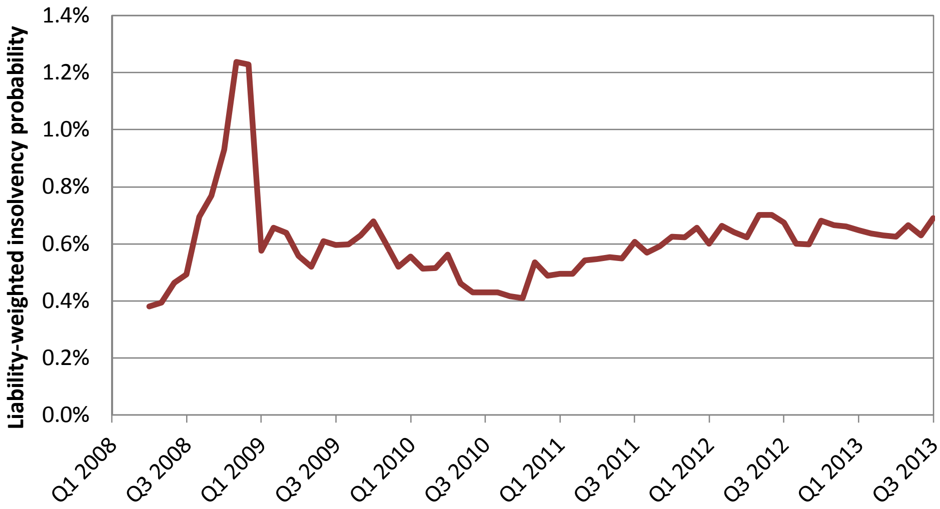


Source: The UK Insolvency Service and the PPF / The Pensions Regulator

*There are around 2.9 million companies in the UK, compared to around 18,000 in the PPF universe.

The weighted insolvency probability of the PPF's 500 largest exposures increased markedly in the last recession. It reached a trough in Q4 2010 at 0.4 per cent. It then moved up gradually to a high of 0.7 per cent in Q3 2012, but has been broadly unchanged since then.

Chart 6.2 | Liability-weighted 1 year ahead insolvency probability* of the PPF's 500 largest scheme exposures**



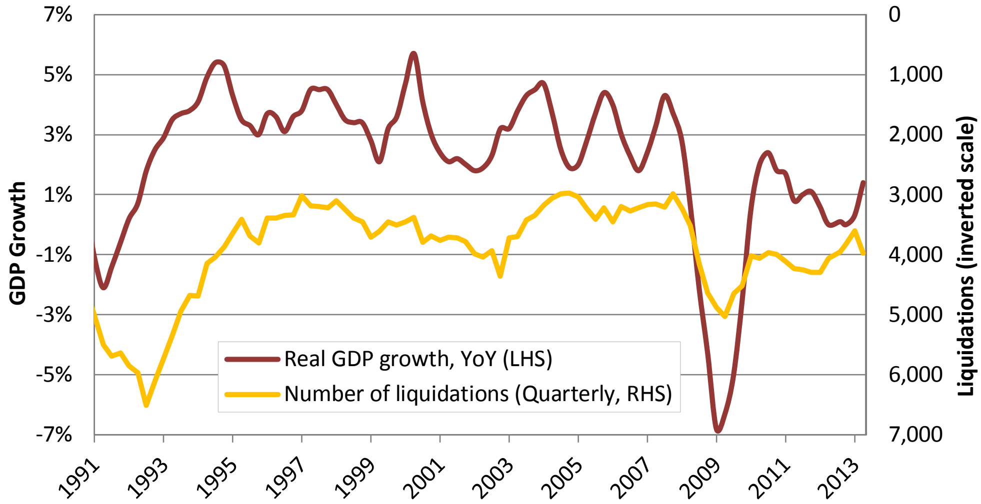
Source: PPF / The Pensions Regulator

* Where available, the insolvency probabilities have been derived from credit ratings, including market-implied ratings, supplied by Moody's and Fitch. Market-implied ratings are constructed on the basis of information from the equity, bond and credit default swap markets. For pension fund sponsors who do not have publicly quoted equities or bonds and are not rated by ratings agencies, Dun & Bradstreet (D&B) failure scores are used. Around 35 per cent of the insolvency probabilities are derived from D&B failure scores.

**Largest scheme exposures in terms of scheme underfunding adjusted for volatility of assets.

The latest GDP figures for Q1 and Q2 2013 point to a modest recovery for the UK. This contrasts with the number of company liquidations, which has increased in Q2 2013. The rise in insolvencies in Q2 2013 may be the result of the stagnant economy in 2012.

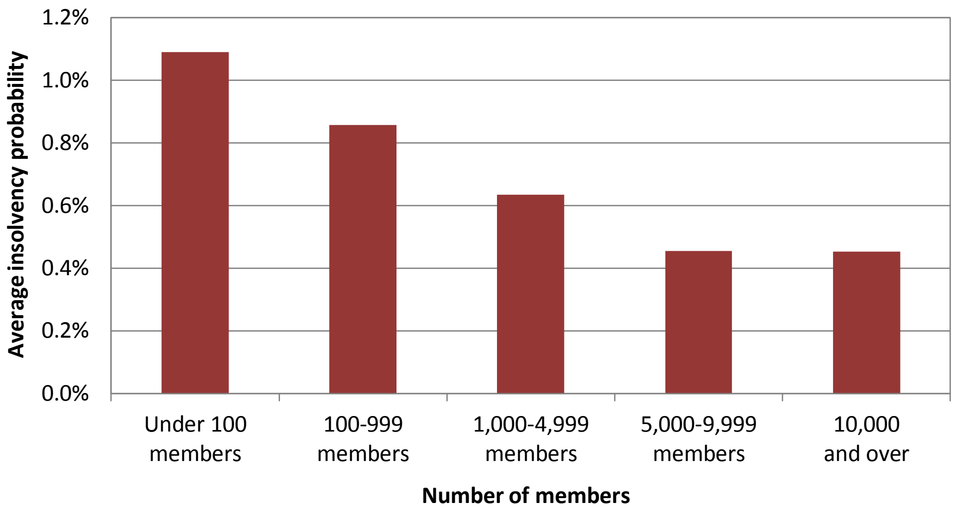
Chart 6.3 | UK corporate insolvencies and GDP growth



Source: Office for National Statistics and the UK Insolvency Service

Smaller schemes (as measured by membership size) tend to have higher insolvency probabilities.

Chart 6.4 | Average one-year ahead insolvency probability based on D&B failure scores * by scheme size as measured by number of members, as at 31 March 2013



Source: PPF/The Pensions Regulator

*Which are converted into the probability of insolvency over the next year.

7 Asset Allocation

7.1 Summary

- Purple 2013 data show a continuation of most of the trends seen in recent years: a falling equity allocation and a rising proportion in bonds, hedge funds and cash and deposits; within equities a rising overseas share and falling UK share. However, within bonds for the first time since 2008 there was a fall in the corporate bond allocation and slightly rising government bond allocation.
- The equity allocation fell to 35.1 per cent from 38.5 per cent in 2012. The proportion of gilts and fixed interest rose to 44.8 per cent from 43.2 per cent in 2012. The proportion of hedge funds increased from 4.5 per cent to 5.2 per cent.
- The overseas proportion of total equity holdings rose from 60.0 per cent in 2012 to 61.3 per cent in 2013 with the UK proportion falling from 33.9 per cent to 31.0 per cent. The balance of holdings in unquoted equities increased from 6.1 per cent in 2012 to 7.7 per cent in 2013.
- Within total gilts and fixed interest, the corporate fixed interest securities' allocation decreased from 44.8 per cent in 2012 to 40.6 per cent in 2013. Meanwhile, the proportion of government fixed interest rose from 17.7 per cent to 18.5 per cent. The balance of holdings in index-linked rose to 40.9 per cent from 37.5 per cent in 2012.
- Smaller schemes tend to have a higher allocation to UK equities and a smaller allocation to overseas equities. Within fixed interest, smaller schemes tend to have a higher allocation to government fixed interest and a smaller allocation to index-linked securities.
- Looking at simple averages[25], the allocation to UK equities is, for the first time since the start of the series in 2008, smaller (47.5 per cent) than that for overseas equities (50.3 per cent). Considering gilts and fixed interest on a simple average basis, the allocation to government fixed interest fell from 28.2 per cent to 27.0 per cent while the allocation to corporate fixed interest securities was roughly unchanged at 49.6 per cent. The average allocation to index-linked securities rose from 22.4 per cent to 23.4 per cent.

[25] Simple averages are defined as the mean without weighting for scheme size.

- As in the earlier Purple Books, more mature schemes tend to invest more heavily in gilts and fixed interest and less in equities.
- From 2012/13, the PPF levy has taken into account investment risk being taken by schemes by adjusting the scheme assets for a market stress[26]. For the 2013/14 levy year, 365 schemes performed compulsory bespoke tests, 257 carried out voluntary tests and 5,528 schemes followed the standard test methodology.
- On an asset-weighted basis, the aggregate effect of the stress is about a 4 per cent reduction in asset values.

About 97 per cent of schemes provided an asset allocation which was less than two years old, compared with 90 per cent before the introduction of New Levy Formula.

7.2 Scheme return data[27]

Table 7.1 | Distribution of schemes by asset allocation date*

Asset allocation year	Number of schemes	Percentage of Purple dataset
Before 2006	2	0.0%
2006	6	0.1%
2007	8	0.1%
2008	9	0.1%
2009	49	0.8%
2010	114	1.9%
2011	2,141	34.8%
2012	3,791	61.6%
2013	30	0.5%

Source: PPF / The Pensions Regulator
*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.

Table 7.2 | Average asset allocation in total assets

	Extended Purple 2006	Extended Purple 2007	Extended Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012	Purple 2013
Equities	61.1%	59.5%	53.6%	46.4%	42.0%	41.1%	38.5%	35.1%
Gilts and fixed interest	28.3%	29.6%	32.9%	37.1%	40.4%	40.1%	43.2%	44.8%
Insurance policies	0.9%	0.8%	1.1%	1.4%	1.4%	1.6%	0.2%	0.1%
Cash and deposits	2.3%	2.3%	3.0%	3.9%	3.9%	4.1%	5.1%	6.7%
Property	4.3%	5.2%	5.6%	5.2%	4.6%	4.4%	4.9%	4.7%
Other Investments								
- 'Other'	3.1%	2.5%	3.8%	4.5%	5.4%	6.3%	3.6%	3.5%
- Hedge Funds	n/a	n/a	n/a	1.5%	2.2%	2.4%	4.5%	5.2%

Source: PPF / The Pensions Regulator

The main trend in asset allocation continued, with the proportion of equities falling further in 2013 and the allocation to gilts and fixed interest increasing.

[26] Schemes' assets are stressed using bespoke and standard scenarios. Schemes that have protected liabilities of £1.5 billion or more (s179 valuation) must carry out a bespoke stress calculation. All other schemes may opt to carry out a bespoke stress calculation on a voluntary basis. Further details on the stress test methodology are provided on http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1314_Investment_Risk_Appendix.pdf

[27] Asset allocations submitted by schemes are not adjusted for market movements.

The proportion of gilts and fixed interest continued to increase in 2013. There was a further drop in insurance policy holdings as schemes reported more accurate asset allocations.

Within gilts and fixed interest, the corporate bonds' proportion dropped for the first time since 2008 while the proportion of index-linked continues to rise.

Within equities the overseas and unquoted equity proportions continue to rise.

Table 7.3 | Asset allocation: simple averages

	Simple averages							
	2006	2007	2008	2009	2010	2011	2012	2013
Equities	52.6%	53.5%	50.2%	46.6%	43.1%	43.7%	43.7%	40.6%
Gilts and fixed interest	22.6%	24.0%	26.5%	29.2%	32.6%	32.6%	36.1%	39.1%
Insurance policies	14.9%	13.7%	13.0%	12.4%	12.3%	11.8%	4.4%	2.0%
Cash and deposits	3.9%	3.7%	4.4%	5.6%	5.7%	4.9%	5.5%	6.2%
Property	2.1%	2.5%	2.9%	2.8%	2.6%	2.7%	3.5%	3.6%
Other Investments								
- 'Other'	3.6%	2.6%	2.9%	2.6%	2.8%	3.3%	3.2%	3.5%
- Hedge Funds	n/a	n/a	n/a	0.7%	0.9%	1.0%	3.7%	5.0%

Source: PPF / The Pensions Regulator

Table 7.4 | Gilt and fixed interest splits

Year	Gilts and fixed interest					
	Government fixed interest securities		Corporate fixed interest securities		Index linked securities	
	Simple average share	Weighted average share	Simple average share	Weighted average share	Simple average share	Weighted average share
2008	47.2%	33.2%	33.0%	32.6%	19.8%	33.9%
2009	45.6%	29.0%	37.3%	38.3%	17.1%	32.6%
2010	37.3%	24.6%	43.0%	42.2%	19.8%	33.1%
2011	31.2%	19.6%	47.1%	44.3%	21.7%	36.1%
2012	28.2%	17.7%	49.4%	44.8%	22.4%	37.5%
2013	27.0%	18.5%	49.6%	40.6%	23.4%	40.9%

Source: PPF / The Pensions Regulator

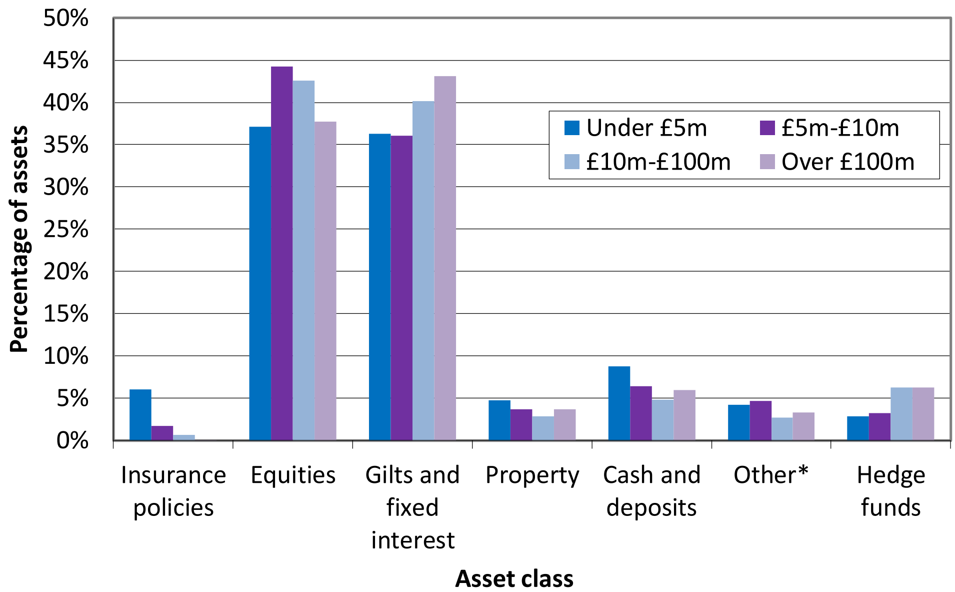
Table 7.5 | Equity splits

Year	Equities					
	UK equities		Overseas equities		Unquoted equities	
	Simple average share	Weighted average share	Simple average share	Weighted average share	Simple average share	Weighted average share
2008	60.4%	48.0%	39.6%	51.6%	n/a	n/a
2009	57.6%	44.2%	41.7%	53.8%	0.7%	1.9%
2010	55.3%	40.1%	43.7%	55.3%	1.0%	4.4%
2011	52.7%	38.0%	46.1%	57.2%	1.2%	4.8%
2012	49.9%	33.9%	48.5%	60.0%	1.7%	6.1%
2013	47.5%	31.0%	50.3%	61.3%	2.2%	7.7%

Source: PPF / The Pensions Regulator

The proportion of assets held in gilts and fixed interest and in hedge funds increases with scheme size. The proportion held in insurance policies and cash and deposits decreases with scheme size.

Chart 7.1 | Simple-average asset allocation of schemes by asset size

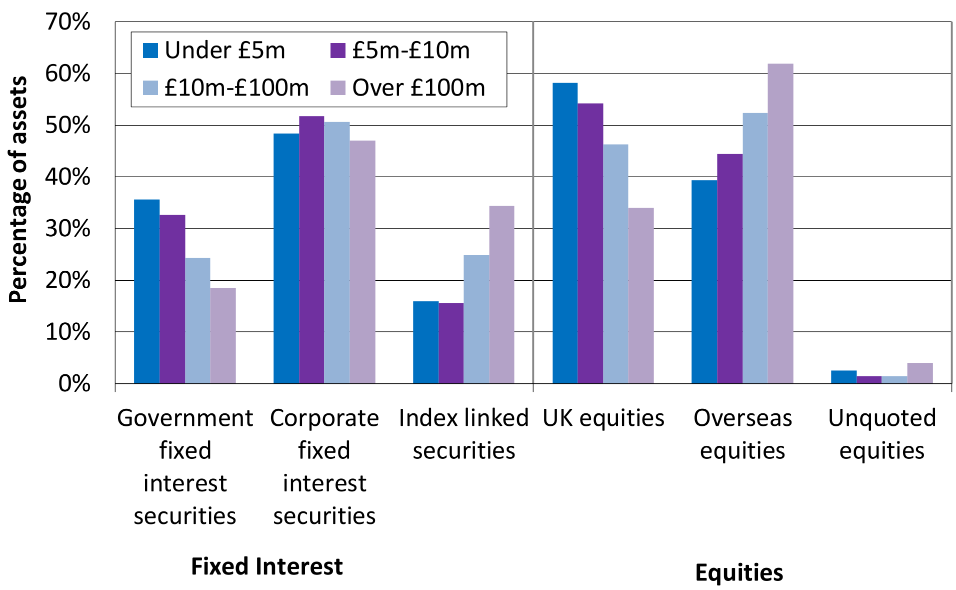


*Other Investments ex. Hedge Funds

Source: PPF / The Pensions Regulator

Within total gilts and fixed interest, the average allocation to government fixed interest securities declines with scheme size while the allocation to indexed-linked securities increases with size. Within equities the allocation to overseas equities increases with scheme size while the allocation to UK equities decreases.

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

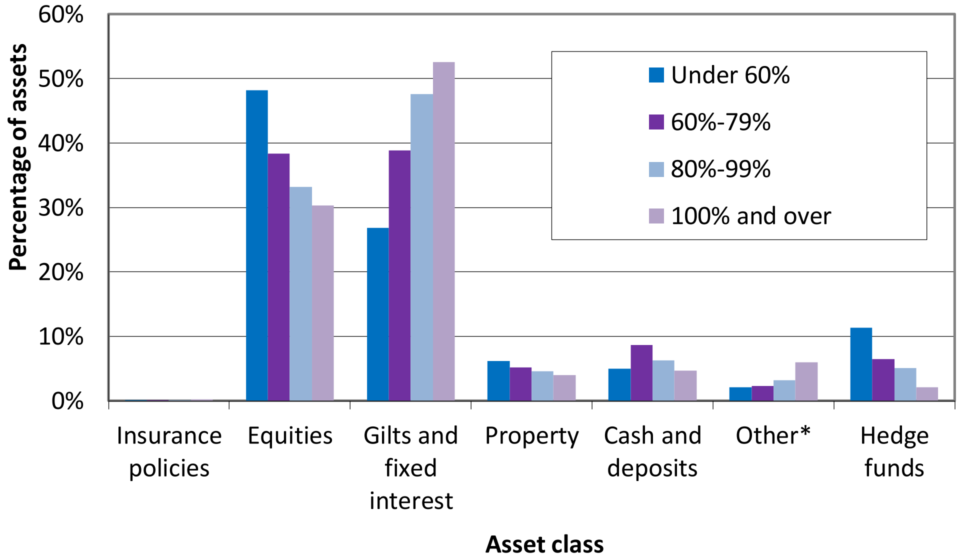


Source: PPF / The Pensions Regulator

The best funded schemes tend to have the greatest proportion of their assets invested in gilts and fixed interest, and a smaller proportion invested in equities.

The proportion of equities in total assets falls with scheme maturity (as measured by the percentage of pensioner liabilities) while the proportion of gilts and fixed interest rises.

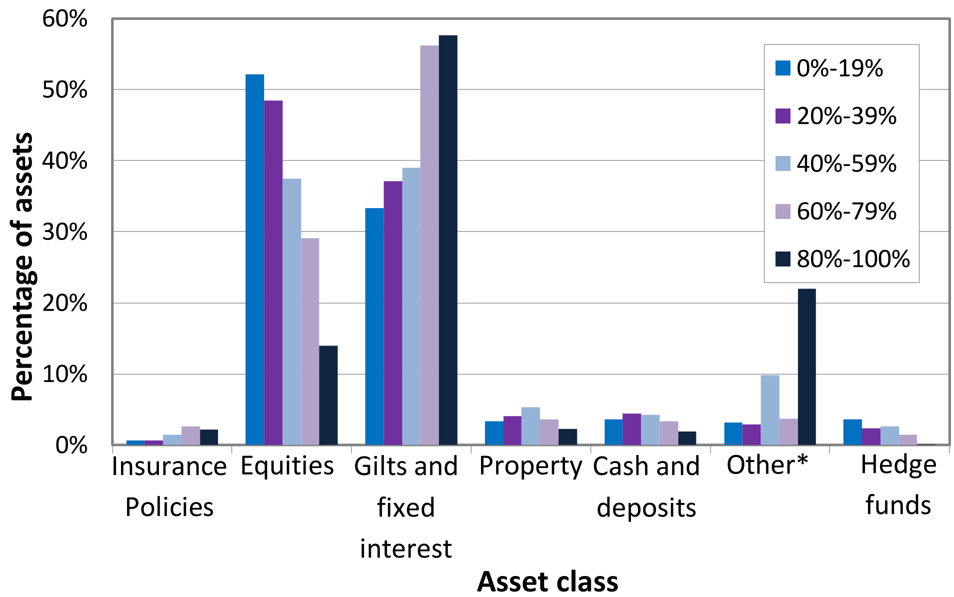
Chart 7.3 | Weighted-average asset allocation by s179 funding level



*Other investments ex. Hedge Funds

Source: PPF / The Pensions Regulator

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

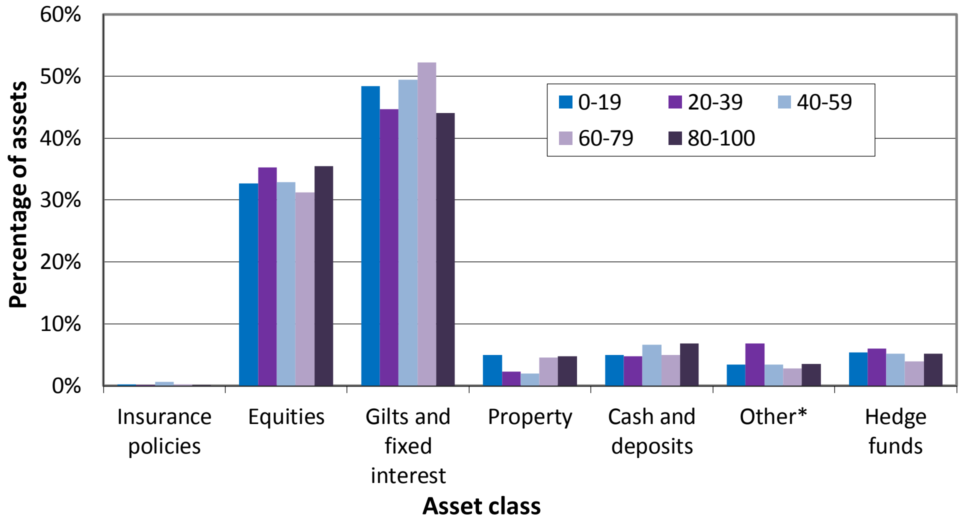


*Other Investments ex. Hedge Funds

Source: PPF / The Pensions Regulator

There appears to be no relationship between asset allocation and D&B failure score.

Chart 7.5 | Weighted-average asset allocation of schemes by Dun & Bradstreet (D&B) failure score (the higher the score the lower the predicted probability of insolvency)



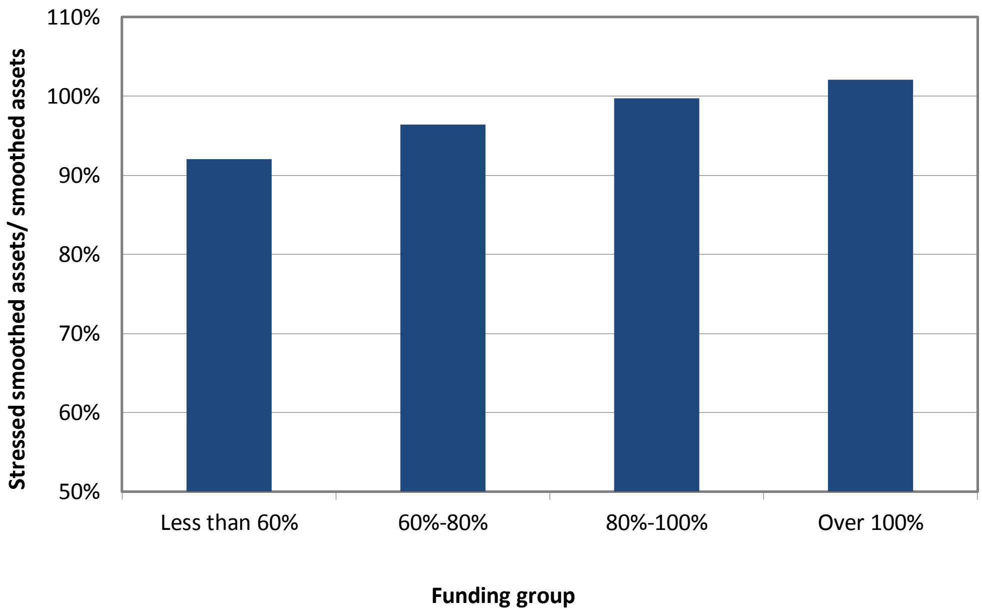
*Other investments ex. Hedge Funds

Source: PPF / The Pensions Regulator

7.3 Investment risk-ratio of stressed assets to assets[28]

Investment risk declines as scheme funding level rises.

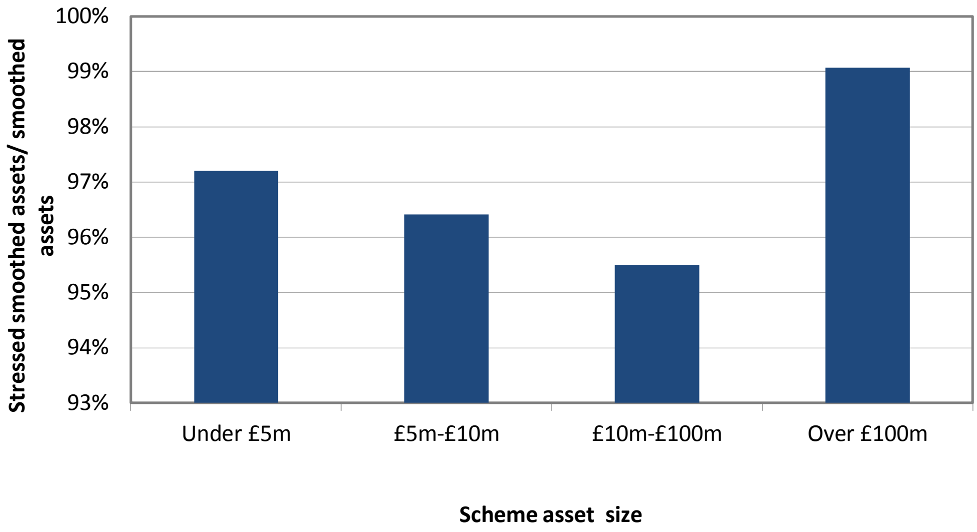
Chart 7.6 | Investment risk by s179 funding level



[28] Further details on the stress test methodology are provided on http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1314_Investment_Risk_Appendix.pdf or please refer to Chapter 8.

Schemes with assets over £100m have the lowest investment risk as they have the highest allocation to gilts and fixed interest.

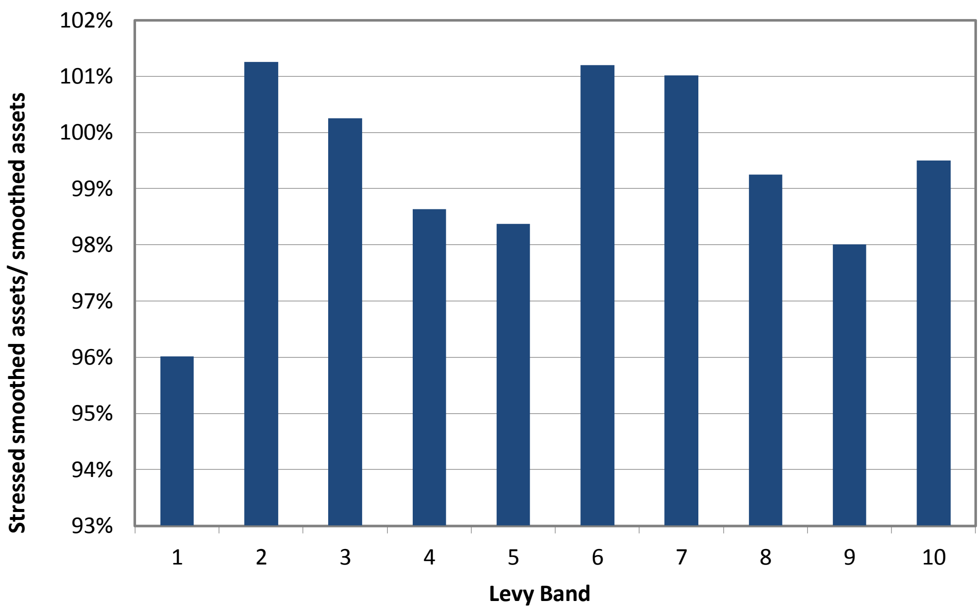
Chart 7.7 | Investment risk by scheme asset size



Source: PPF / The Pensions Regulator

There appears to be no relationship between investment risk and levy band.

Chart 7.8 | Investment risk by levy band[29]

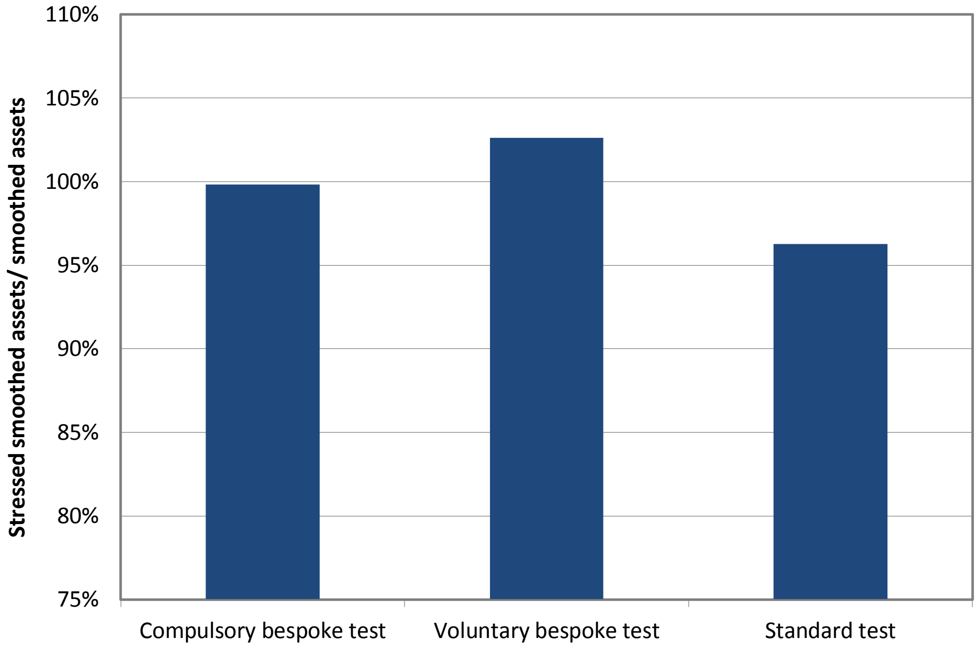


Source: PPF / The Pensions Regulator

[29] For full details of the levy bands, please visit http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx
See Chapter 8 for distribution of schemes by levy band.

Schemes which carried out bespoke stress testing on a voluntary basis reported a lower investment risk than schemes using the standard test and compulsory bespoke test.

Chart 7.9 | Impact of stress testing on investment risk*



Source: PPF / The Pensions Regulator

*Based on 366 schemes who performed compulsory bespoke tests, 258 voluntary tests and approximately 6,000 schemes which followed the standard test methodology for their 2013/14 levy calculation.

8 Risk Developments

8.1 Summary

- The Long-Term Risk Model (LTRM) is the key tool that the Board of the 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 slight reduction in long-term risk to the Fund between end-March 2012 and end-March 2013, which was largely attributable to an improvement in the PPF's own funding level in the 12-month period.
- The PPF published its long-term funding strategy in August 2010. As part of this strategy the PPF aims to be self-sufficient by 2030 (i.e. fully funded, with zero exposure to market, inflation and interest-rate risk and some protection against claims and longevity risk). The funding strategy is reviewed annually to check whether the funding objective remains appropriate and whether the PPF is on track to achieve it.
- LTRM projections with a calculation date of 31 March 2013, suggest that the PPF has an 87 per cent probability of meeting this objective compared with 84 per cent one year earlier[30].
- Looking at shorter-term risk measures, the total weighted deficit (scheme sponsor one-year-ahead insolvency probability multiplied by scheme deficit) for deficit schemes decreased to £1.5 billion at end-March 2013 from £1.8 billion at end-March 2012.
- Schemes with sponsors in the manufacturing sector have the largest weighted deficit at around 43 per cent of the total.

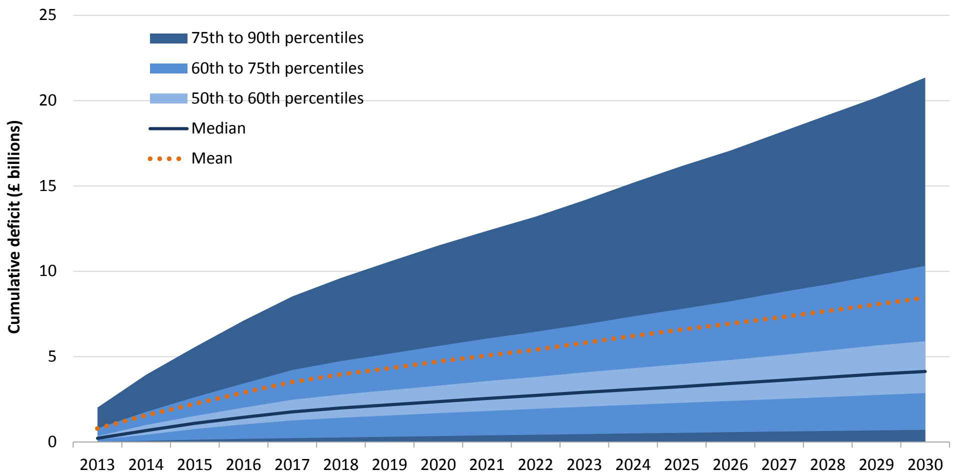
[30] This probability is sensitive to a range of modelling assumptions. For a description of the modelling methodology and assumptions employed, see http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_Funding_Strategy_Document.pdf

The PPF faces a significant tail-risk, i.e. high impact, low probability claims.

The LTRM projection of expected (mean) claims on the PPF over five years has decreased from £3.8 billion at March 2012 to £3.5 billion at March 2013.

8.2 Long-Term Risk

Chart 8.1 | Cumulative deficits of schemes entering the PPF from 31 March 2013*



Source: PPF / The Pensions Regulator

*As projected in the LTRM model. The fan chart depicts the probability that the cumulative deficits of schemes entering the PPF from 31 March 2013 will be within certain boundaries.

Table 8.1 | LTRM Projections of five-year claims on the PPF (s179 basis) from 2009 to 2013

March LTRM run	Total claims over five years (£ billion)				
	Median	Mean	75th percentile	90th percentile	95th percentile
2009	2.1	3.5	4.5	8.4	11.9
2010	1.2	2.5	3.0	6.3	9.4
2011	0.6	1.2	1.4	2.9	4.4
2012	2.3	3.8	4.7	8.9	12.4
2013	1.8	3.5	4.2	8.5	12.6

Source: PPF / The Pensions Regulator

8.3 The PPF's Long-Term Funding Strategy[31]

- The PPF published its long-term funding strategy in August 2010 and its most recent annual update was in October 2013. The strategy established a long-term funding objective and a framework for monitoring the Fund's progress towards this target.
- The PPF's long-term funding objective is to be self-sufficient by 2030. Self-sufficiency means that the PPF is fully-funded with zero exposure to market, inflation and interest rate risk and protection against the risk of future claims and members living longer than expected. Exposure to market, inflation and interest rate risk can be reduced using conventional hedging arrangements and investment in low-risk securities. Analysis of LTRM output suggests that a funding reserve equivalent to 10 per cent of PPF liabilities at 2030 would be sufficient to cover unexpected claims (over five years) and longevity risk (over the lifetime of the Fund) in nine out of 10 scenarios.
- Output from the LTRM is used to model the probability of the PPF meeting the funding objective. The LTRM projects a range of PPF balance sheet outcomes at 2030. The probability of meeting the funding objective is calculated as the percentage of outcomes in which PPF funding exceeds the level required by self-sufficiency. As at 31 March 2013, this probability was 87 per cent. When the funding strategy was first set up in 2010, the Board expressed comfort with circumstances in which this probability is greater than 80 per cent.
- There is perpetual and non-zero risk of a large PPF deficit occurring as a result of significant claims. In order to measure the dispersion of adverse funding outcomes, the PPF has constructed a 'downside risk' measure. This is calculated by taking the 90th percentile of the largest deficits to develop at any point in each of the 500,000 projected balance sheet scenarios[37]. As at 31 March 2013, the PPF's downside risk to 2030 was £10 billion. Both the probability of meeting the funding objective and the downside risk measure are sensitive to a series of modelling assumptions. Table 8.2 below illustrates the sensitivity to a selection of these.
- The long-term funding strategy provides a clear and comprehensive overview of the PPF risk environment, strengthening the basis on which PPF policy is formed and improving communication of the Fund's financial prospects to stakeholders. The Board of the PPF intends to continue reviewing the strategy on an annual basis.

[31] For a full explanation of the PPF long-term funding strategy, including modelling methodology and assumptions, see
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF_Funding_Strategy_Document.pdf
For the October 2012 review of the funding strategy, see:
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Funding_Strategy_Review_2012.pdf

The base-case probability of the PPF meeting its funding objective is 87 per cent, up from 84 per cent a year ago. The probability of meeting the funding objective and the downside risk are subject to modelling assumptions as illustrated in the table.

Table 8.2 | Modelled probability of the PPF meeting its funding objective, as at 31 March 2013

Scenario	Probability of meeting funding objective	Downside risk (£ billion)
Base case	87%	10
Scheme funding levels 10% lower	83%	15
Recovery plans 5 years longer	86%	11
Reduction in asset returns of 0.25% pa (excluding cash and government bonds)	85%	11
No market in CPI instruments emerges	84%	13
Levy reduced by 10 per cent	86%	11
Initial PPF funding reduced by 10 percentage points	83%	12
Sponsor insolvency probabilities increased by 20 per cent	85%	13
Scheme Technical Provisions reduced by 10 per cent (relative to S179 basis)	84%	13
No risk margin in our funding target (i.e. aim for 100% funding rather than 110%)	93%	10
No closure to new accruals	86%	10
Higher rate of active withdrawal – 10 per cent per annum instead of 5 per cent	88%	10

Source: PPF / The Pensions Regulator

8.4 Shorter-term risk: insolvency-probability-weighted deficits

To aid analysis of shorter-term risk, schemes have been grouped by underfunding groups and PPF levy bands.

In the analysis below:

Weighted deficit[32] for scheme A = deficit in scheme A (in £s) x one-year-ahead insolvency probability[33] of sponsoring company with each measured as at 31 March 2013.

Table 8.3 | Definition of underfunding groups, as at 31 March 2013

Underfunding group	Ratio of s179 assets to liabilities	Percentage of total number of schemes in deficit
1	75% to 100%	50.3%
2	50% to 75%	45.4%
3	Less than 50%	4.3%

Source: PPF / The Pensions Regulator

[32] The weighted deficit does not take into account potential s75 recoveries or parent guarantees.

[33] Where available, the insolvency probabilities have been derived from credit ratings, including market-implied ratings, supplied by Moody's and Fitch. Market-implied ratings are constructed on the basis of information from the equity, bond and credit default swap markets. For pension fund sponsors who do not have publicly quoted equities or bonds and are not rated by ratings agencies, Dun & Bradstreet (D&B) failure scores are used.

The majority of schemes in deficit are concentrated in the first three levy bands.

Table 8.4 | Levy bands[34], as at 31 March 2013

Levy Band	Levy Rate	Percentage of total number of schemes
1	0.0018	27.9%
2	0.0028	15.0%
3	0.0044	14.3%
4	0.0069	8.1%
5	0.0110	13.1%
6	0.0160	5.6%
7	0.0201	5.2%
8	0.0260	2.3%
9	0.0306	1.4%
10	0.0400	7.2%

Source: PPF / The Pensions Regulator

The total weighted deficit for schemes in deficit at end-March 2013 was around £1.5 billion down from about £1.8 billion at end-March 2012.

Table 8.5 | Weighted deficit by levy band and underfunding group for schemes in deficit, as at 31 March 2013

Weighted deficit (£ million)	Underfunding group			Total
Levy Band	1	2	3	
1	38	79	15	132
2	11	14	2	27
3	170	156	17	343
4	10	17	2	30
5	20	38	3	62
6	49	83	4	137
7	12	29	5	46
8	7	15	2	24
9	2	9	1	11
10	254	413	40	707
Total	**573**	**853**	**91**	**1,518**

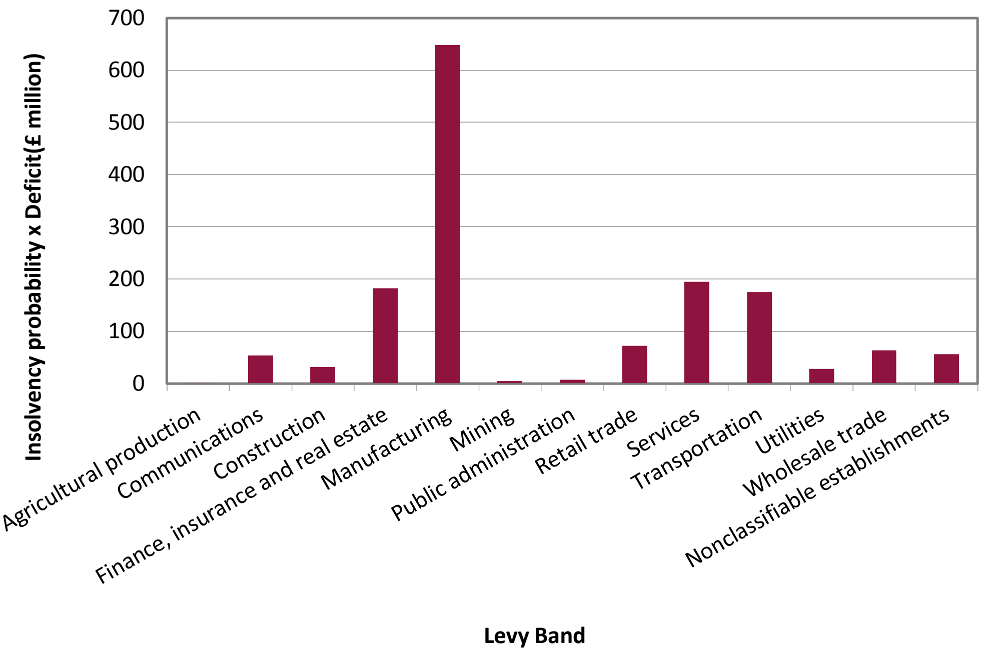
Source: PPF / The Pensions Regulator

[34] For full details of the levy bands, please visit http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

Schemes with sponsors in the Manufacturing sector have the largest weighted deficit at about £0.7 billion, around 43 per cent of the total. Manufacturing is the largest sector in the PPF universe. However its average deficit per scheme is only the third highest in the universe.

Expected claims for the PPF's 500 largest exposures have decreased considerably since July 2012, when they reached a record high of £2.2 billion. This mainly reflects improving funding levels.

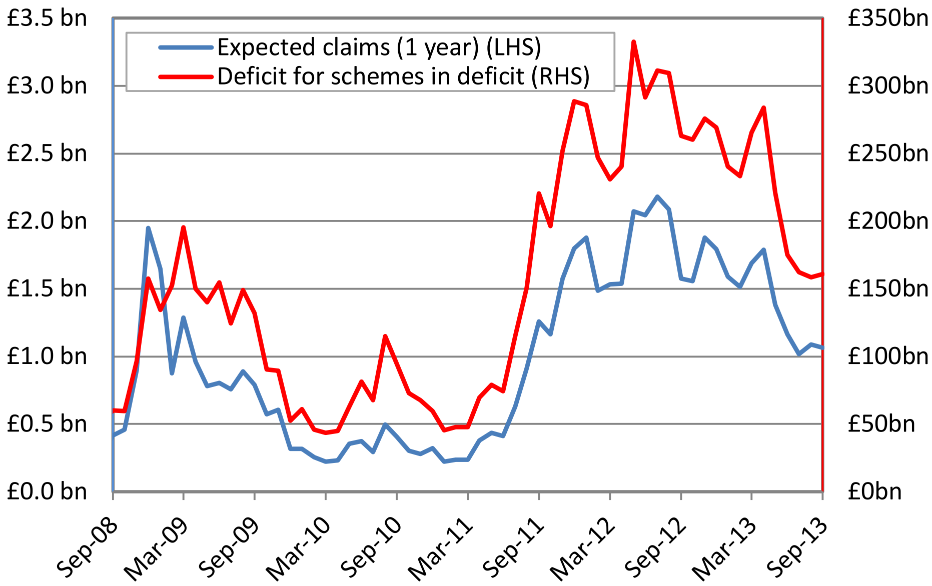
Chart 8.2 | Weighted deficit by industry* for schemes in deficit, as at 31 March 2013



Source: PPF / The Pensions Regulator

*Based on US 1972 Standard Industrial Classification.

Chart 8.3 | One-year-forward expected claims* of the PPF's 500 largest scheme exposures**



Source: PPF / The Pensions Regulator

*Expected claims do not take into account potential s75 recoveries or parent guarantees.

**As measured by stressed, smoothed deficits

9 Levy Payments 2012/13

9.1 Summary

- For seven years, the PPF has collected a levy determined mainly by the risk schemes pose to the PPF. Over this period, it has collected a total of £4.0 billion.
- The dataset used in this chapter is based on 6,305 schemes which have been invoiced for £667 million in total. This is somewhat larger than the £643 million the PPF expects to collect[35].
- In 2012/13, the New Levy Framework[36] (NLF) was introduced, changing the way the Pension Protection Levy is calculated. Notable changes[37] include: the smoothing and stressing of assets and liabilities to reduce data volatility and account for investment risk, respectively; averaging insolvency risk over a 12-month period and using more current data.
- The £643 million the PPF expects to collect is significantly higher than the levy estimate of £550 million. The levy estimate is, in part, dependent on the amount of Deficit Reduction Contributions (DRC's) in the previous levy year. There were £5.4 billion fewer DRC's in the 12/13 levy year compared with 11/12, thus the levy now expected to be collected is significantly higher. The increase in levy expected to be collected is also due to the fall in gilt yields after the initial estimate was set, causing underfunding to worsen.
- In 2012/13, the number of schemes paying no risk-based levy (RBL) represented 19 per cent of total schemes, compared to 5 per cent for 2011/12. The significant increase in the number of schemes paying no RBL is largely due to the implementation of the NLF. As a result, in 2012/13 schemes that are fully funded, after taking account of their investment risk, pay no RBL. By comparison, in 2011/12 schemes had to be 155 per cent funded to pay no RBL.
- In 2012/13, 427 schemes had their RBL capped at 0.75 per cent of stressed, smoothed liabilities. This is 6.8 per cent of the total number of schemes, compared with 10.2 per cent in 2011/12. The liabilities of capped schemes equalled £11.3 billion or 1.1 per cent of total liabilities.
- The top 100 levy payers accounted for £287 million or 43.1 per cent of the total levy. In 2011/12 the top 100 levy payers accounted for 39.1 per cent of the total levy. The change in the proportion of levy that the top 100 levy payers account for is because of the reduction in scheme-based levy (SBL) as a percentage of total levy, from 20 per cent in 2011/12 to 11 per cent in 2012/13.
- Manufacturing represents the largest portion of the universe, accounting for 26.6 per cent of total liabilities (based on 5,571 comparable schemes across all Purple books) and pays 38.4 per cent of total levy. Finance, insurance and real estate accounts for 23.6 per cent of total liabilities and 14.0 per cent of total levy.

[35] The £24 million difference between expected total levy and total levy invoiced relates to outstanding legal reviews, D&B appeals and schemes that have experienced an insolvency event.
[36] For an overview of the NLF, please visit:
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/levy_policy_statement_May11.pdf
[37] For full details of the levy determination please visit:
http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

Actual levy payments being higher than the levy estimate in the 2012/13 levy year was, in part, due to the fall in gilt yields after the initial estimate was set, causing underfunding to worsen.

Table 9.1 | Levy Payments*

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13
Actual levy payments (£ m)	271	585	651	592	663	596	643
Percentage of scheme assets[38]	0.03%	0.07%	0.08%	0.07%	0.09%	0.08%	0.08%
Levy Estimate (£ m)**	575	675	675	700	720	600	550
Number of capped schemes	310	411	564	340	679	626	427

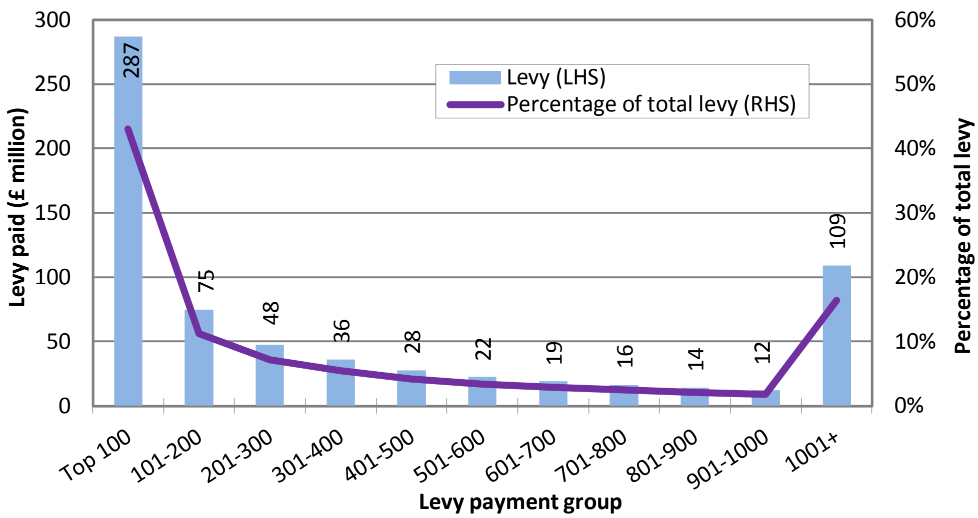
Source: PPF / The Pensions Regulator

* Information in this table is calculated from the dataset of 6,305 for 2012/13 or from prior years' Purple Books where relevant.

** The levy estimate represents the Board's published estimate made in the 2012/13 levy policy statement[39].

In 2012/13, the top 100 levy payers accounted for £287 million or 43 per cent of the total levy, but 39 per cent of total stressed, smoothed liabilities. In 2011/12, the top 100 levy payers accounted for £227 million, 39 per cent of the total levy.

Chart 9.1 | Distribution of levy payments by largest levy payers in 2012/2013



Source: PPF/The Pensions Regulator

Note: the 1001+ category accounts for a relatively large percentage of the total levy as it contains more than 5,000 schemes.

[38] Actual levy payments as a percentage of total assets of schemes paying a levy. The 2012/13 assets are stressed and smoothed, in line with the NLF and thus not directly comparable with previous years.

[39] For details of the levy policy statement, please visit: http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1213_levy_policy_statement.pdf

Around 19 per cent of schemes paid no RBL, up from 5 per cent in 2011/12. The large increase in the number of schemes paying no RBL is largely due to the implementation of the NLF, in particular the removal of the taper so that schemes with a funding level of at least 100 per cent pay no RBL.

In 2012/13, 427 schemes had their RBL capped. The proportion of schemes in each levy band which are capped increases with levy rates (from band 3 onwards), as the use of a higher levy rate makes the application of the cap more likely. In 2011/12, 626 schemes had their RBL capped.

Table 9.2 | Schemes paying no risk-based levy by levy year

Levy year	Number of schemes	Percentage of total schemes	s179 liabilities (£ billion)	Percentage of total schemes liabilities
2006/07	345	5%	44.1	6%
2007/08	570	9%	83.0	12%
2008/09	473	7%	71.8	10%
2009/10	363	6%	32.7	5%
2010/11	195	3%	8.8	1%
2011/12	296	5%	24.6	3%
2012/13	1,191	19%	199.3[40]	19%

Source: PPF / The Pensions Regulator

Table 9.3 | Number of schemes with capped risk-based levies by levy band

Levy band[41]	Levy rate	Total number of schemes	Number of capped schemes[42]	Percentage of schemes in levy band which are capped
1	0.0018	1,910	3	0.2%
2	0.0028	1,077	0	0.0%
3	0.0044	865	1	0.1%
4	0.0069	570	1	0.2%
5	0.0110	754	4	0.5%
6	0.0160	270	30	11.1%
7	0.0201	352	104	29.5%
8	0.0260	120	59	49.2%
9	0.0306	84	34	40.5%
10	0.0400	303	191	63.0%
Total		**6,305**	**427**	

Source: PPF / The Pensions Regulator

[40] 2012/13 liabilities are stressed and smoothed, in line with the NLF.
[41] For full details of the levy bands, please visit http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx
[42] For the definition of capped schemes, please visit http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

The proportion of schemes which are capped decreases as the funding level improves, as lower underfunding makes the application of the cap less likely.

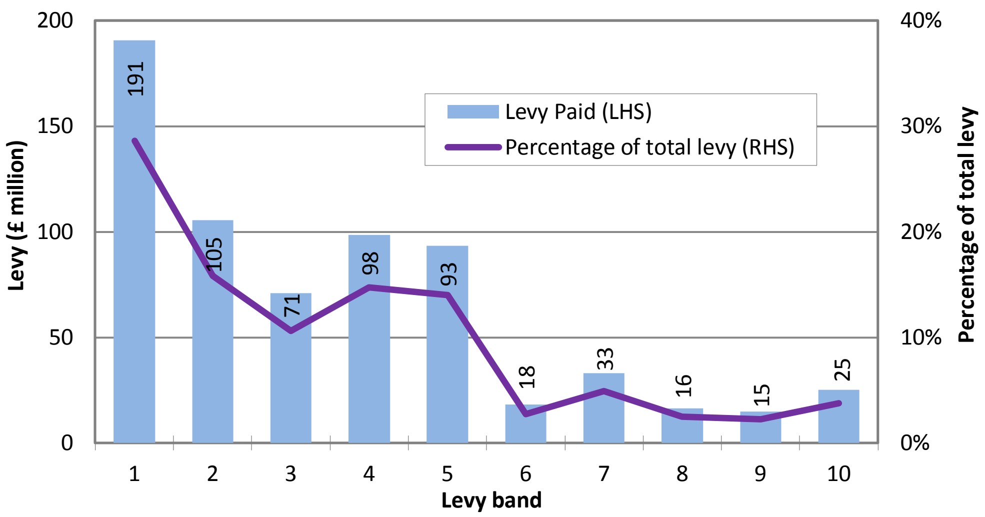
Table 9.4 | Number of schemes with capped risk-based levies by funding level

Stressed and smoothed funding level	Number of capped schemes	Percentage of schemes in funding band which are capped
Less than 50%	147	22.2%
50%-75%	258	8.9%
75%-100%	22	1.2%
Greater than 100%	0	0.0%

Source: PPF / The Pensions Regulator

Levy band 1 made the largest contribution to total levy receipts, paying £191m or 28.6 per cent of total levy collected. Levy bands 4 and 5 paid more levy in 2012/13 than 2011/12. This is because they contain a combined 1,324 schemes in 2012/13 compared with 897 schemes in 2011/12.

Chart 9.2 | Levy distribution by levy band[43]

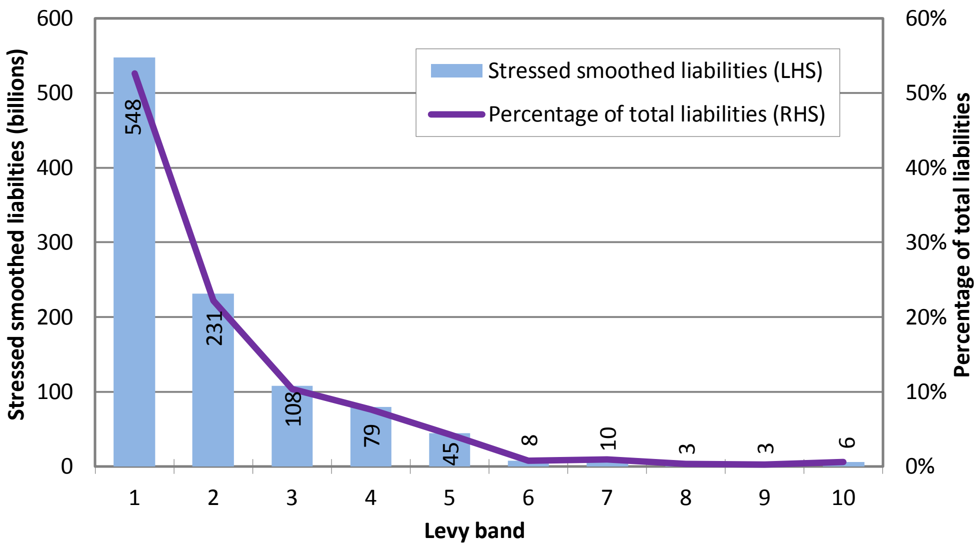


Source: PPF/The Pensions Regulator

[43] For the definition of scheme and risk-based levy, please visit: http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

Levy band 1 accounts for 52.6 per cent of the total stressed, smoothed liabilities.

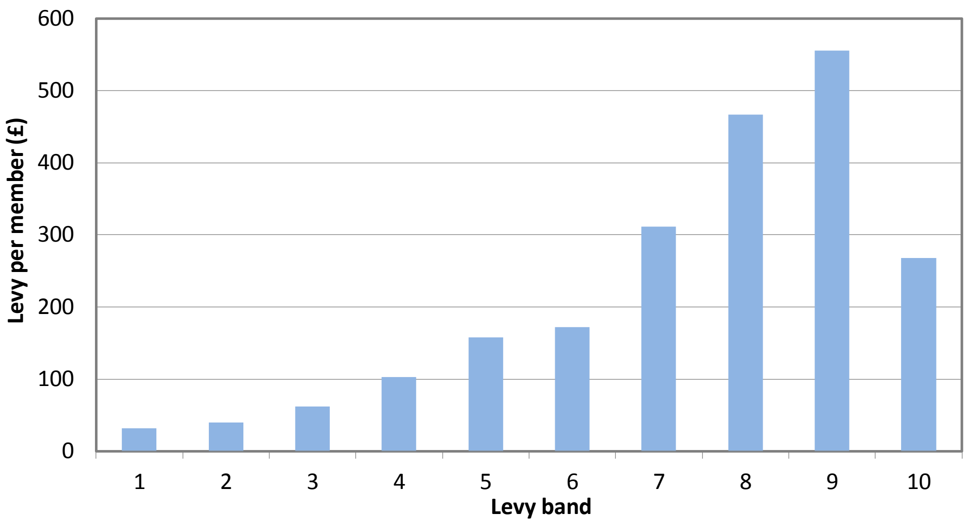
Chart 9.3 | Stressed, smoothed liabilities by levy band



Source: PPF / The Pensions Regulator

The average levy per member is £56.95 in 2012/13. Levy per member is highest in the levy bands 8 and 9 and generally lower in the low levy bands. The fall in levy per member between levy bands 9 and 10 is partly because 63 per cent of schemes in band 10 have a capped RBL. It also reflects the distribution of scheme funding within the two levy bands.

Chart 9.4 | Levy per member by levy band[44]

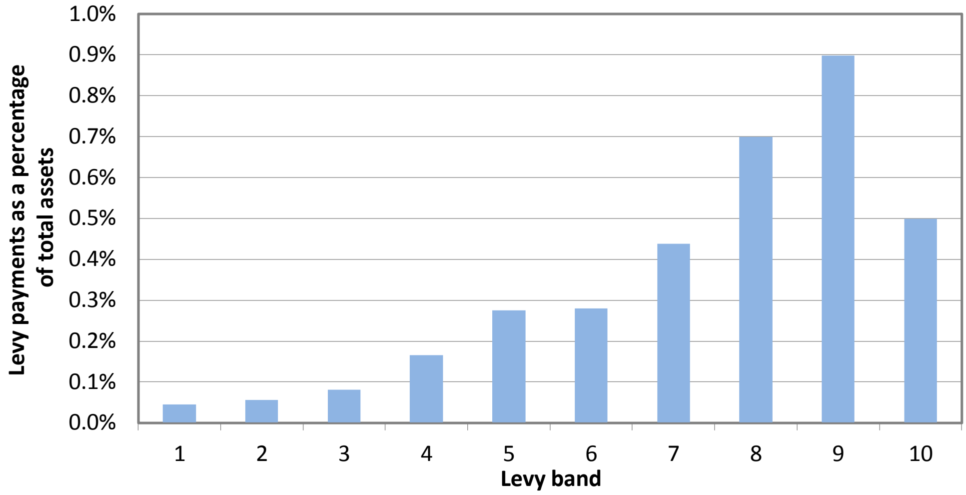


Source: PPF/The Pensions Regulator

[44] For the definition of scheme and risk-based levy, please visit: http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

The PPF levy is very small compared with the value of total stressed, smoothed assets. The average over the sample was 0.08 per cent in 2012/2013.

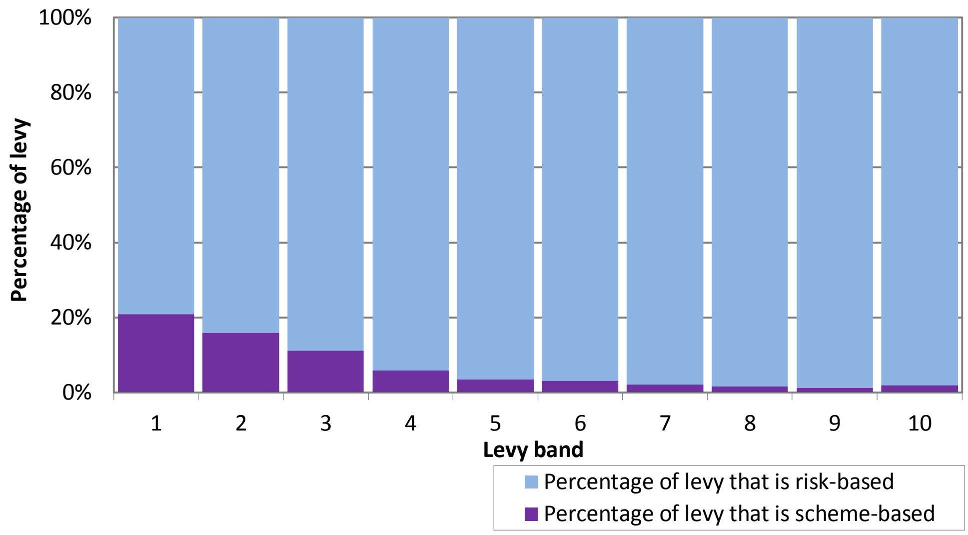
Chart 9.5 | Levy payments as a proportion of stressed, smoothed assets by levy band



Source: PPF/The Pensions Regulator

The share of RBL tends to rise and the share of SBL to fall, as the levy band increases.

Chart 9.6 | Percentage of total levy that is scheme- and risk-based[45] by levy band

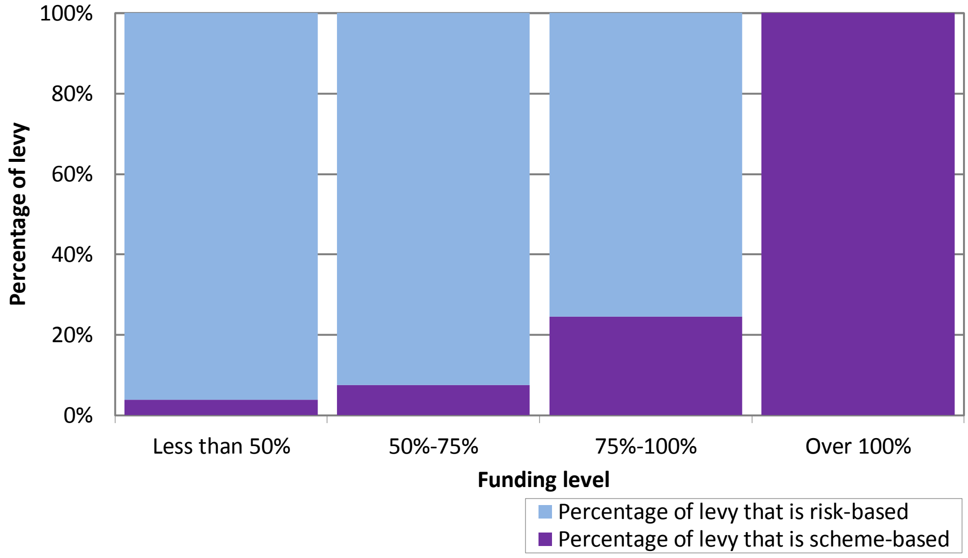


Source: PPF/The Pensions Regulator

[45] For the definition of scheme and risk based levy, please visit: http://www.pensionprotectionfund.org.uk/levy/Pages/1213_Levy_Determination.aspx

The proportion of RBL declines as scheme funding improves. The levy paid by schemes which are over 100 per cent funded consists of 100 per cent SBL. This results from the removal of the taper under the NLF, so that schemes with a funding level of at least 100 per cent now pay no RBL.

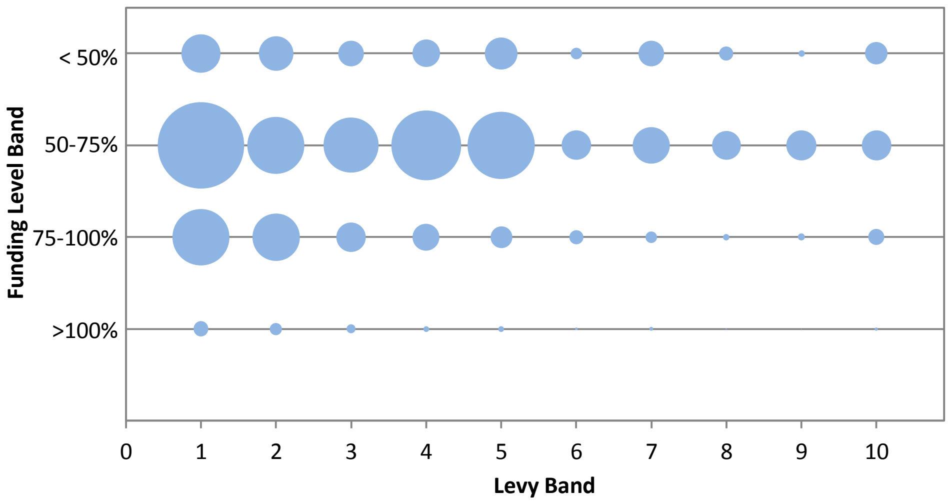
Chart 9.7 | Percentage of total levy that is scheme- and risk-based by funding level (on a stressed, smoothed basis)



Source: PPF/The Pensions Regulator

Levy bands 1 to 5 account for 84 per cent of the total levy and 97 per cent of the total number of members.

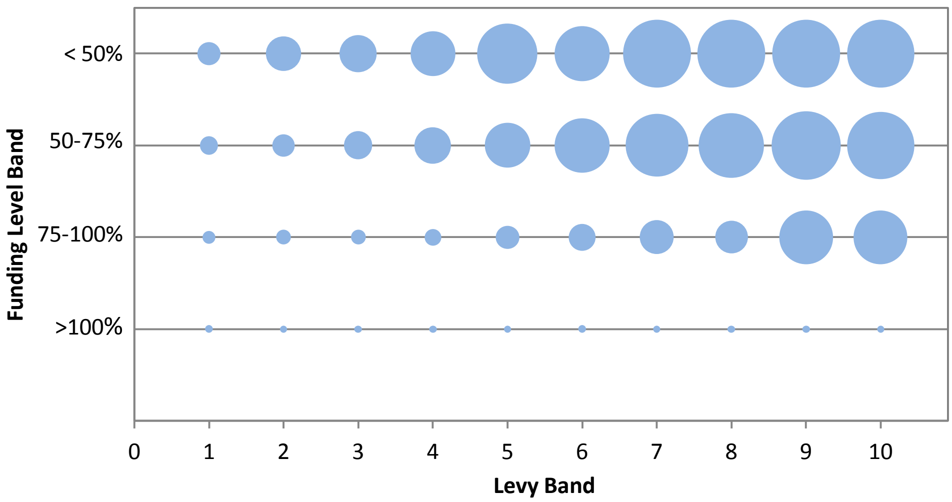
Chart 9.8 | Total levy by levy and funding bands



Source: PPF/The Pensions Regulator

Those schemes which are below 75 per cent funded (on a stressed, smoothed basis) pay more levy per £ of stressed, smoothed liabilities compared with other schemes grouped in the same levy band.

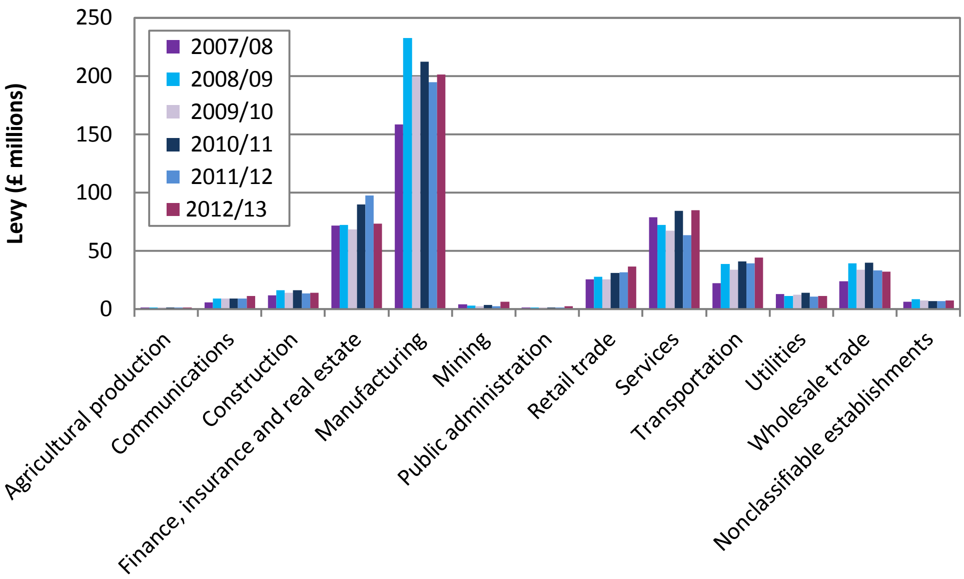
Chart 9.9 | Levy per £ of stressed, smoothed liabilities by levy and funding bands



Source: PPF/The Pensions Regulator

Manufacturing, Finance, insurance and real estate, and Services are the highest levy paying industries, in line with their proportion of the eligible DB schemes.

Chart 9.10 | Total levy by industry[46]



Source: PPF/The Pensions Regulator

[46] These figures are based on a sample of 5,571 schemes across all years. Industry data is based on the 1972 US Standard Industrial Classification.

10 Schemes in Assessment

10.1 Summary

- Before transferring into the PPF, all schemes go through an assessment period to determine their ability to pay PPF levels of compensation[47]. The PPF aims to complete the assessment period for most schemes within two years.
- The PPF's Annual Report and Accounts 2012/13 show that there were 223 schemes in assessment as at 31 March 2013 compared with 300 as at 31 March 2012. Of the 223 figure, 187 were recognised in provisions on the PPF balance sheet, down from 251 at 31 March 2012. In these figures, all segregated parts of schemes have been counted as separate schemes.
- In this chapter, for analytical purposes, scheme sections and segregated parts are amalgamated at scheme level; after this amalgamation there were 172 schemes (with 111,000 members) in a PPF assessment period as at 31 March 2013, compared with 211 schemes (with 125,000 members) a year earlier. As a result, the number of schemes in assessment in this chapter is less than reported in the 2012/13 Annual Report and Accounts.
- The fall over the year reflects 77 new schemes entering and remaining in assessment, 84 schemes transferring into the PPF and 32 being rescued, rejected or withdrawn.
- As at 31 March 2013, the aggregate assets of schemes in assessment totalled £5.8 billion and their liabilities £7.6 billion on a s179 basis. Liabilities averaged £44.3 million per scheme and assets averaged £33.9 million.
- Schemes with liabilities below £5 million account for 37.8 per cent of schemes in assessment but only 2.0 per cent of the liabilities in assessment, while schemes with liabilities of over £100 million account for 5.2 per cent of schemes in assessment but 63.8 per cent of liabilities in assessment.
- The aggregate funding level (total assets divided by total liabilities) of the schemes in assessment as at 31 March 2013 was 76.6 per cent, below the aggregate funding levels of the schemes in the Purple 2013 dataset (84.1 per cent). However the funding level of schemes in assessment was higher than a year earlier (74.0 per cent).
- Schemes in assessment tended to hold less of their assets in gilts and fixed interest (30 per cent) than schemes in general (39 per cent). They held more in insurance policies (14 per cent compared with 2 per cent) which reflects the high share of insurance policies for small schemes.
- The Manufacturing sector accounted for 44.8 per cent of the companies sponsoring schemes in assessment. Both the Finance, insurance and real estate and Services sectors account for 14.0 per cent of sponsors of schemes in assessment.

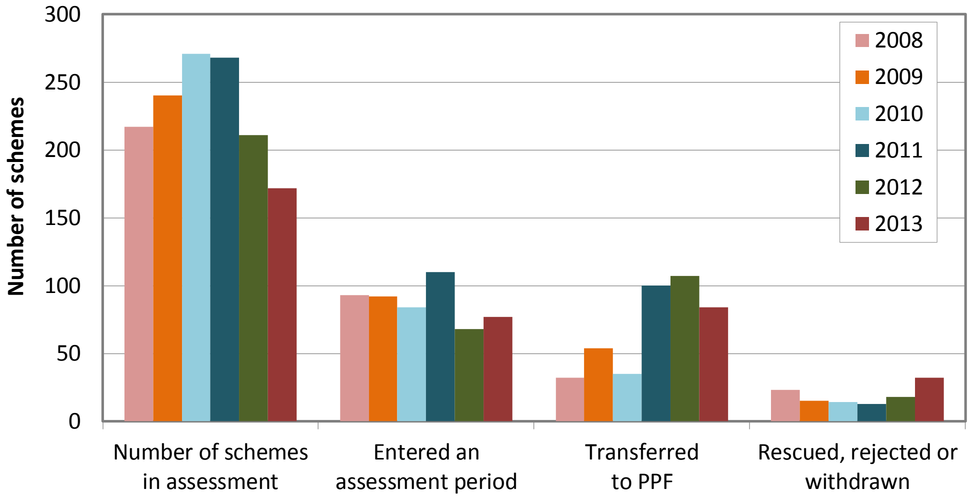
[47] See Chapter 2, The Data for description of the eligibility test.

- The representation of Manufacturing in schemes in assessment is greater than the sector's share of scheme sponsors in the PPF universe (44.8 per cent), which in turn is greater than the share of manufacturing in the UK economy (12 per cent).
- Since 2005, there have been around 900 claims on the PPF with a total deficit value of £5.1 billion. Schemes with under 100 members accounted for 48.3 per cent of the claims since 2005. The Manufacturing sector contributed to 44.5 per cent of the total claims, higher than its contribution to the Purple 2012 dataset (29.5 per cent). The representation of the Services sector (14.5 per cent) was much lower than its share of scheme sponsors in the PPF universe (23.8 per cent).

The number of schemes in assessment has declined again in the latest year. In 2013, there was a large increase in the number of rejected schemes.

10.2 Schemes entering assessment

Chart 10.1 | Number of schemes in assessment each year, as at 31 March 2013



Source: PPF / The Pensions Regulator

At 31 March 2013, scheme funding for schemes in assessment was 76.6 per cent compared with 74.0 per cent the year before.

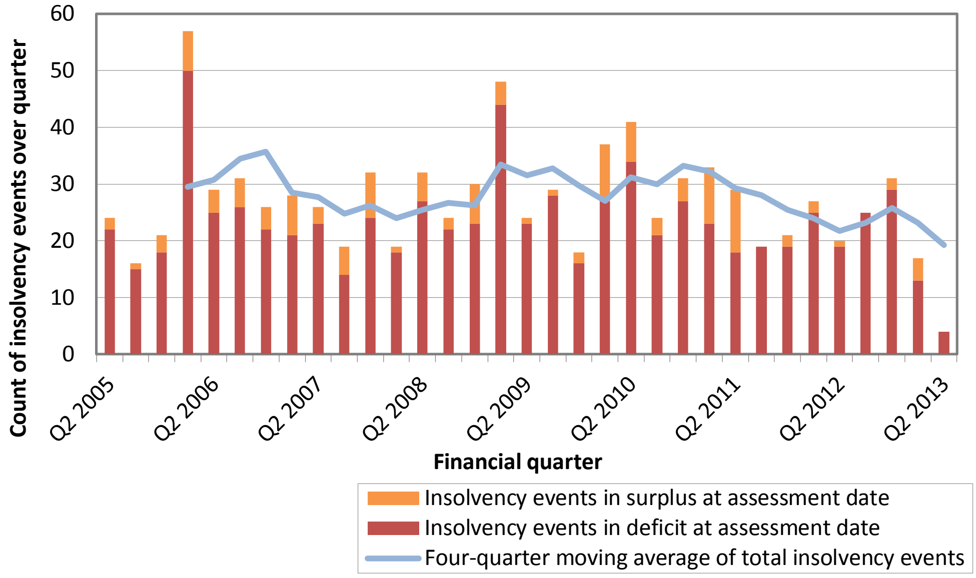
Table 10.1 | Funding statistics for schemes in assessment each year, as at 31 March 2013

Year	Assets (£billion)	Liabilities s179 basis (£billion)	Balance (£billion)	Funding ratio
2007	4.0	4.7	-0.7	85.1%
2008	4.2	5.4	-1.2	77.8%
2009	6.7	9.4	-2.8	70.8%
2010	8.9	10.0	-1.1	88.7%
2011	9.5	10.9	-1.4	86.8%
2012	6.2	8.4	-2.2	74.0%
2013	5.8	7.6	-1.8	76.6%

Source: PPF / The Pensions Regulator

The number of qualifying insolvency events has been trending down over the past two years.

Chart 10.2 | Number of qualifying insolvency events by date of insolvency*

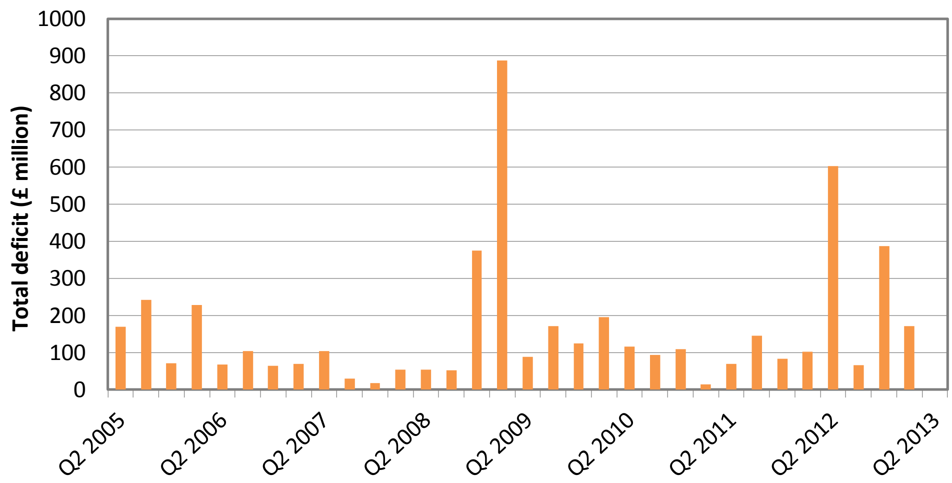


Source: PPF / The Pensions Regulator

*Sections and segregated schemes not amalgamated.

The total deficit of schemes entering assessment in the year to Q1 2013 was £1,227 million, up from £399 million in the year to Q1 2012.

Chart 10.3 | Total s179 deficits for schemes entering an assessment period



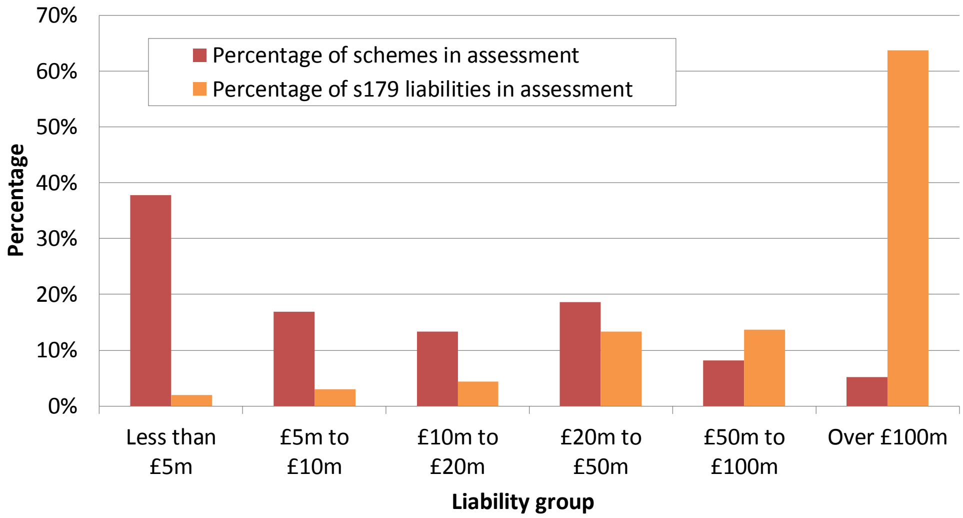
Source: PPF / The Pensions Regulator

Schemes with liabilities of more than £100 million represent 5.2 per cent of schemes in assessment but 63.8 per cent of liabilities.

In 2013, 48 per cent of the schemes in assessment were in the 100-999 membership range. 43 per cent had fewer than 100 members.

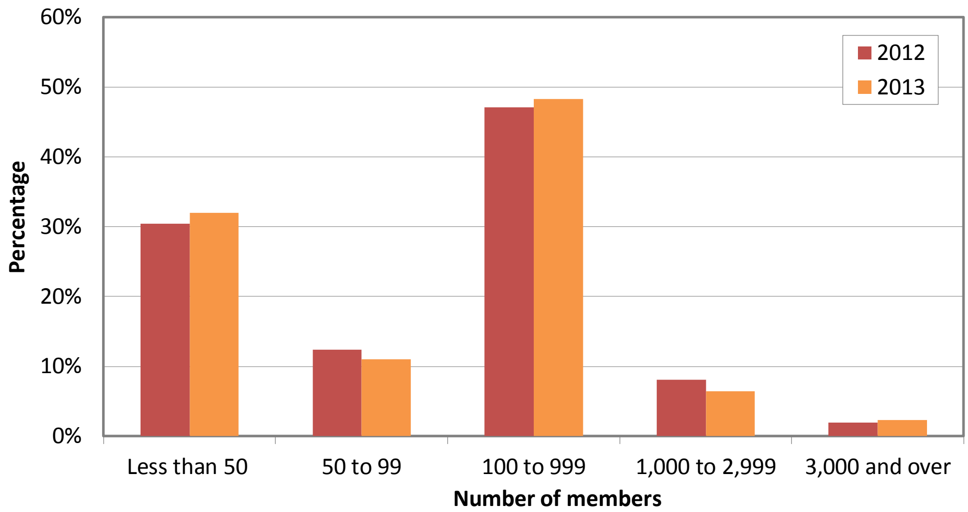
10.3 Scheme demographics

Chart 10.4 | Percentage of schemes and percentage of s179 liabilities grouped by size of liabilities for schemes in assessment, as at 31 March 2013.



Source: PPF / The Pensions Regulator

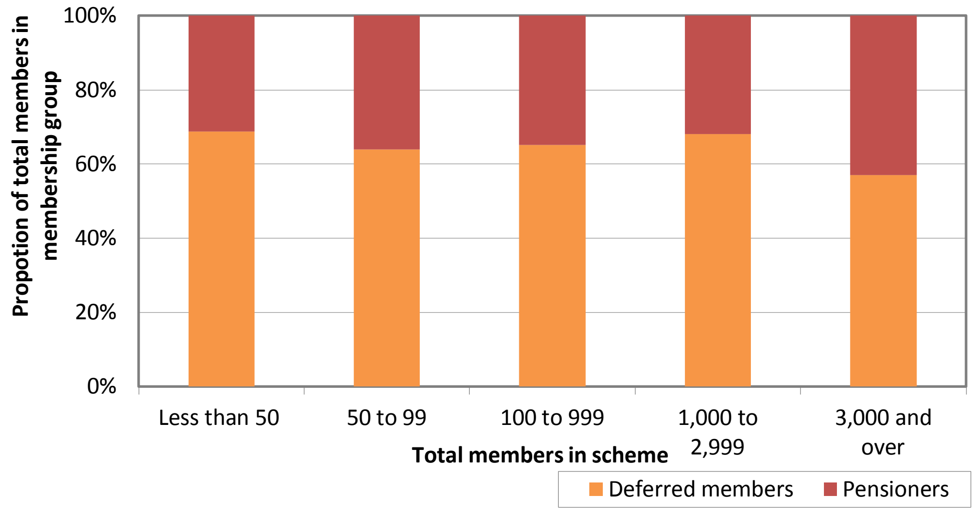
Chart 10.5 | Proportion of schemes in assessment by membership size



Source: PPF / The Pensions Regulator

Schemes in assessment in the 3,000 and over membership range are the most mature schemes.

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



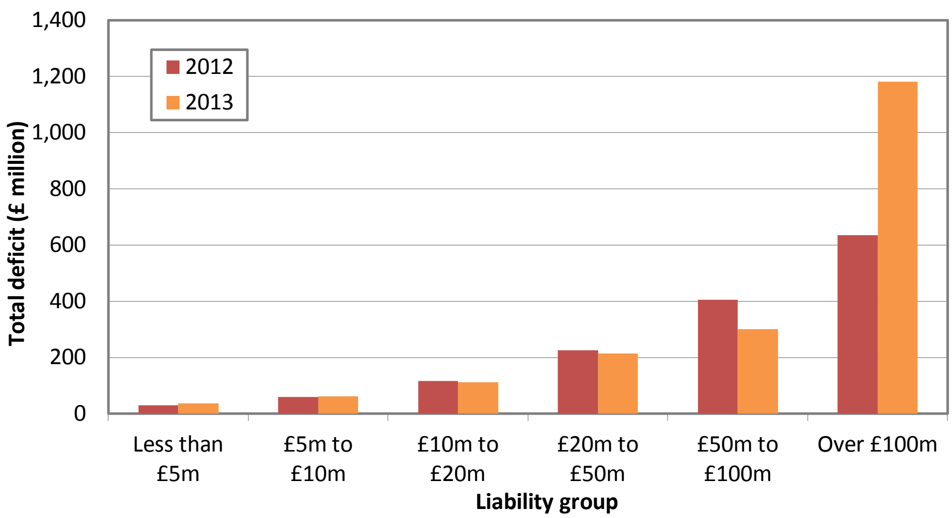
Source: PPF / The Pensions Regulator

*Only pensioners and deferred members are considered.

10.4 Funding level

2013 saw a large increase in the deficit of the largest schemes. This is mainly due to the entry of three schemes with liabilities of over £200 million.

Chart 10.7 | Total s179 deficit of schemes in assessment by liability size

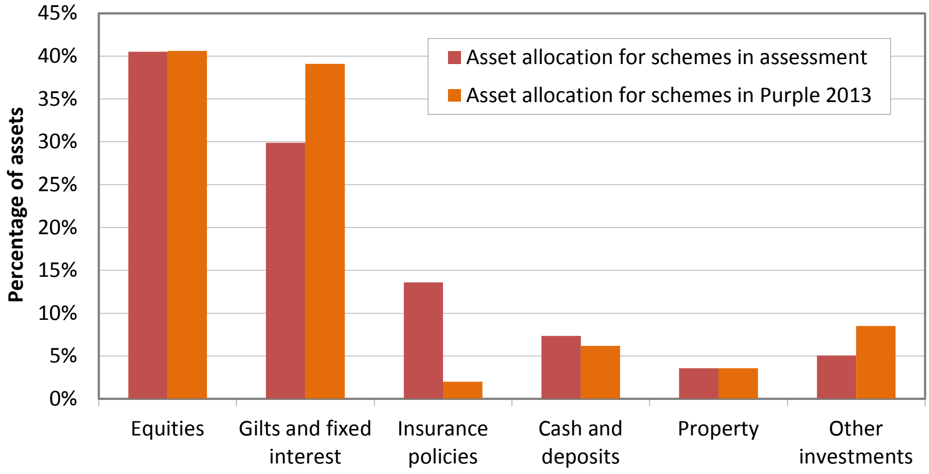


Source: PPF / The Pensions Regulator

Prior to assessment, schemes tended to hold less of their assets in gilts and fixed interest than schemes in general. They held more in insurance policies, which reflects the high share of insurance policies for small schemes.

10.5 Asset allocation

Chart 10.8 | Simple-average asset allocations prior to assessment for schemes in assessment and the Purple 2013 dataset as at 31 March 2013

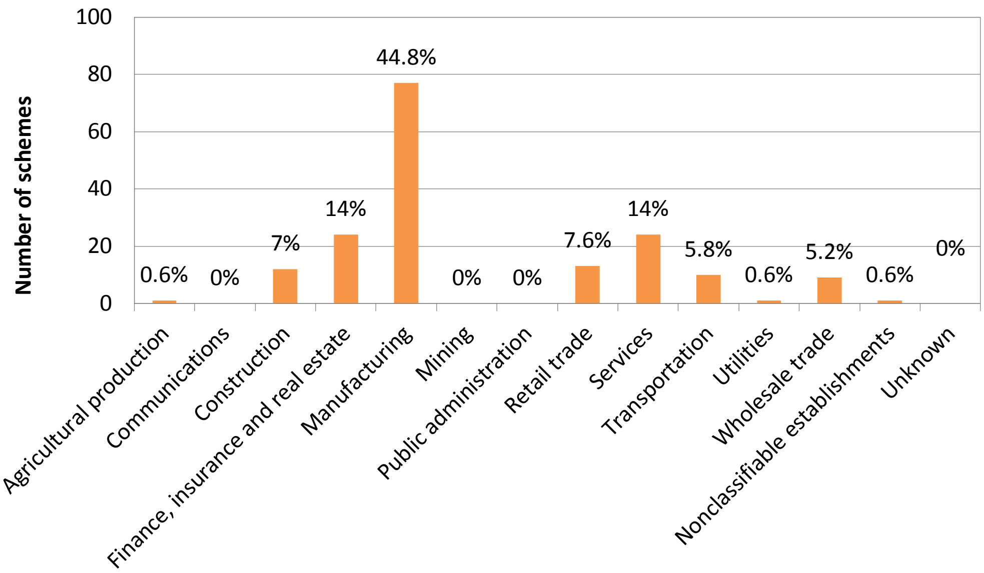


Source: PPF / The Pensions Regulator

10.6 Industry classification

Manufacturing made up 77 of the 172 schemes in assessment (44.8 per cent).

Chart 10.9 | Distribution of schemes in assessment by industry classification



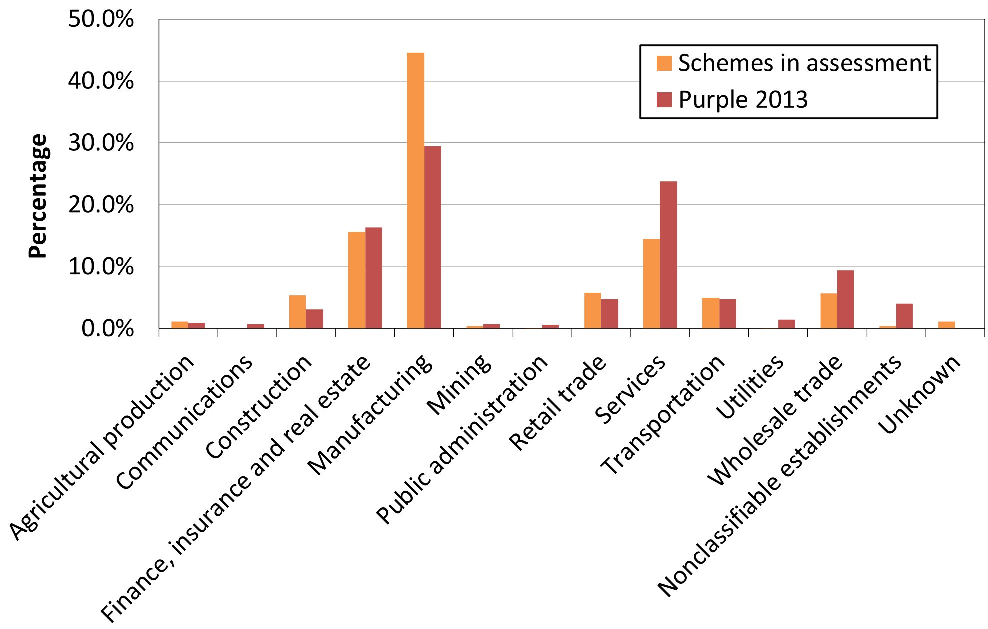
Source: PPF / The Pensions Regulator

Manufacturing contributed 44.5 per cent of the schemes entering assessment since 2005. This is much higher than its proportion in the DB universe.

42.8 per cent of the claims since 2005 came from schemes in the 100-999 membership range. Schemes under 100 members accounted for 48.3 per cent of the claims since 2005.

10.7 Total claims since 2005[48] up to 31 March 2013

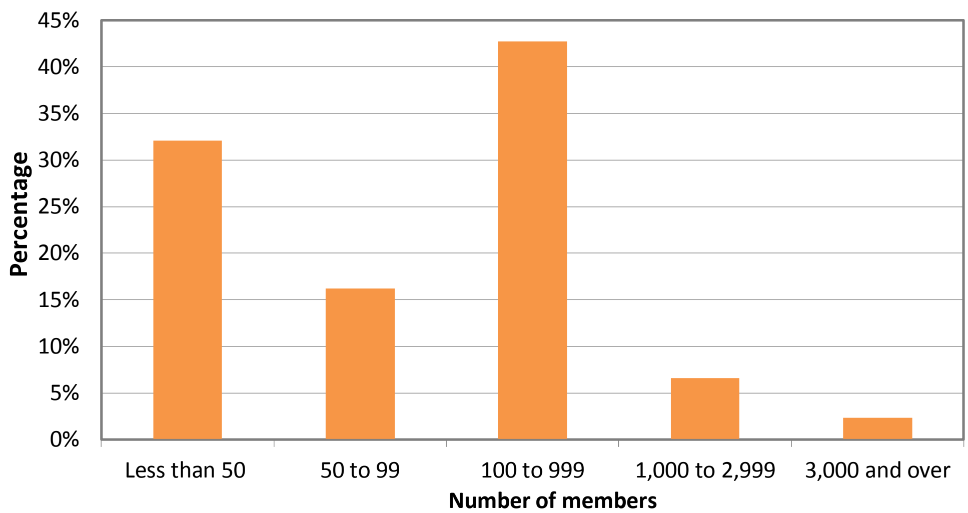
Chart 10.10 | Distribution of schemes entering an assessment period since 2005 by industry classification*



Source: PPF / The Pensions Regulator

*Based on US 1972 Standard Industrial Classification.

Chart 10.11 | Proportion of claims since 2005 by membership size



Source: PPF / The Pensions Regulator

[48] Sections and segregated schemes not amalgamated.

11 PPF Compensation

11.1 Summary

- When an eligible Defined Benefit (DB) scheme transfers into the PPF, the PPF generally pays a starting level of compensation of 90 per cent of scheme pension (subject to a compensation cap) to members who were yet to reach their normal retirement age (NRA) at the date the scheme entered assessment. The PPF will generally pay a starting level of compensation equivalent to 100 per cent of scheme pension to those who were already over their NRA at the start of the assessment period[49].
- In 2012/13, the PPF made compensation payments of £331.9 million compared with £203.3 million in 2011/12.
- As at 31 March 2013, 80,665 members were in receipt of PPF compensation, up from 57,506 in the previous year. Average compensation in payment stood at £4,014[50] a year. The number of members with compensation not yet in payment (deferred members) as at 31 March 2013 totalled 91,353. For these members, the average accrued periodic compensation (before any prospective application of the compensation cap at NRA) was £3,311 a year.
- As at 31 March 2013, males constituted 61 per cent of pensioner and 67 per cent of deferred members.
- Spouses and other dependants account for 15 per cent of those currently in receipt of compensation. They receive 10 per cent of the total compensation in payment.
- Around 51 per cent of all compensation is attributable to former employees of the manufacturing sector, down from 57 per cent the year before.
- The West Midlands region has the largest receipt of compensation, currently at 14 per cent of total pensioner compensation.
- The vast majority of members are in receipt of (or have accrued) compensation of less than 25 per cent of the compensation cap.
- The majority of compensation (and liabilities) was accrued in relation to service before 6 April 1997 and is, therefore, not subject to indexation. Compensation accrued on or after 6 April 1997 is increased each year in line with Consumer Price Inflation (CPI) capped at 2.5 per cent with a floor of 0 per cent.

[49] The annualised average rate of compensation is calculated by scaling up compensation over one month to reflect one year. This measure, which excludes lump sum payments, is used in order to accurately represent periodic compensation in payment at 31 March 2013.

[50] Unless otherwise stated, totals and averages relating to pensioners include dependants.

- Deferred compensation is re-valued over the period to NRA in line with CPI capped at 5 per cent per annum (for compensation accrued before 6 April 2009) and CPI capped at 2.5 per cent per annum (for compensation accrued on or after 6 April 2009), subject to a floor of 0 per cent in both cases.
- In 2011, the government introduced new rules to move to the use of the CPI for the purpose of the indexation and revaluation (subject to the appropriate caps and floors as detailed above). Prior to 2011, increases were based on the Retail Prices Inflation index (RPI). These changes affect pension revaluation for deferred members from April 2011 and indexation for pensioners from January 2012. All figures of compensation presented in this chapter are, where relevant, based on historical RPI inflation indexation and revaluation.

11.2 Total compensation and number of members

Total compensation paid has increased significantly over the year from £203.3 million to £331.9 million.

Table 11.1 | Total compensation and number of members

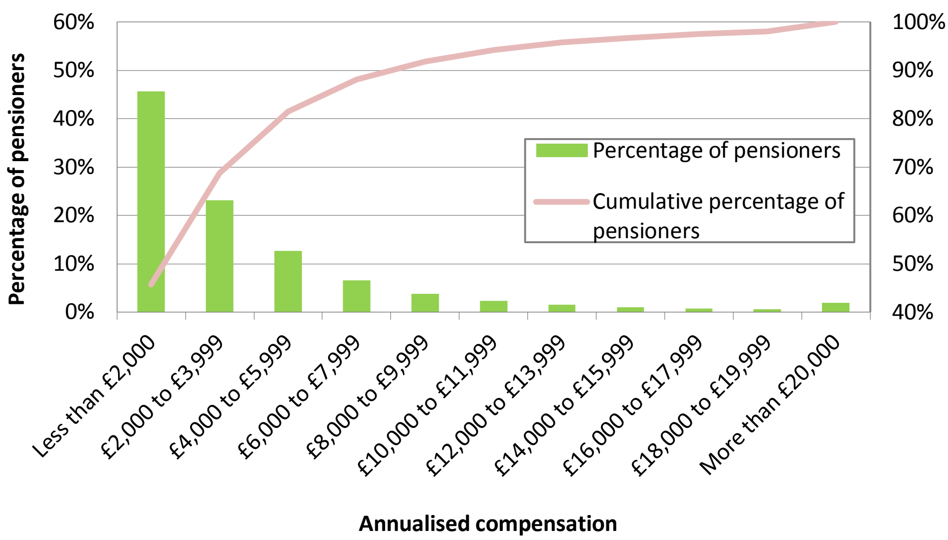
	Year						
	2007	2008	2009	2010	2011	2012	2013
Total compensation (£ million, year to 31 March)	1.4	17.3	37.6	81.6	119.5	203.3	331.9
Total pensioner members (31 March)	1,457	3,596	12,723	20,775	33,069	57,506	80,665
Total deferred members (31 March)	5,621	8,577	18,009	26,058	42,063	70,608	91,353

Source: PPF / The Pensions Regulator

11.3 Distribution of Compensation

82 per cent of pensioner members are in receipt of annualised compensation of less than £6,000.

Chart 11.1 | Distribution of pensioners by annualised compensation level*

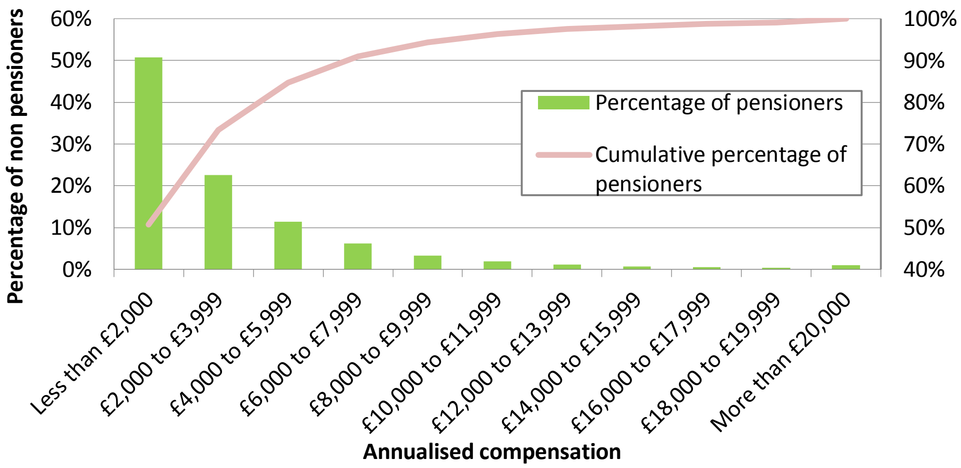


Source: PPF/ The Pensions Regulator

*The line on the graph represents the cumulative percentage of pensioners as the annualised compensation increases.

85 per cent of deferred members have accrued annualised compensation of less than £6,000.

Chart 11.2 | Distribution of deferred members by annualised compensation level*



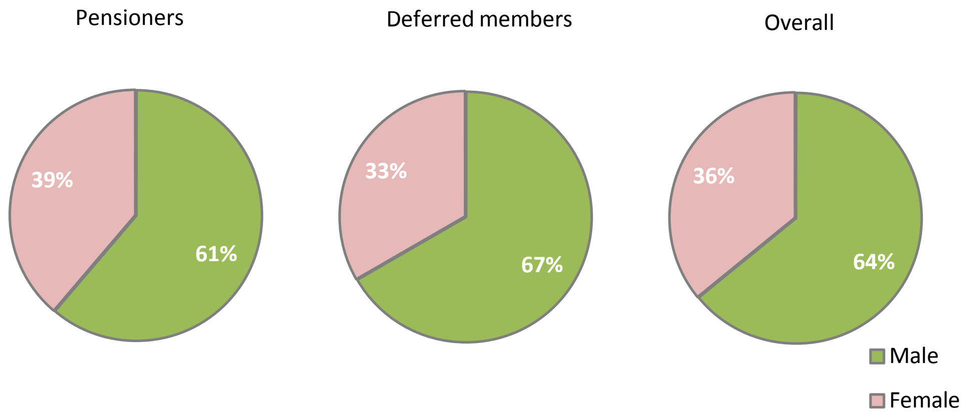
Source: PPF/ The Pensions Regulator

*The line on the graph represents the cumulative percentage of pensioners as the annualised compensation increases.

11.4 Gender

Overall, males make up 64 per cent of members of transferred schemes.

Chart 11.3 | Gender composition of pensioners and deferred members



Source: PPF/ The Pensions Regulator

Spouses and other dependants constitute only a small proportion of total pensioners and compensation.

11.5 Spouses and other dependants

Table 11.2 | Proportions of spouses and other dependants, and members within the PPF current pensioner population

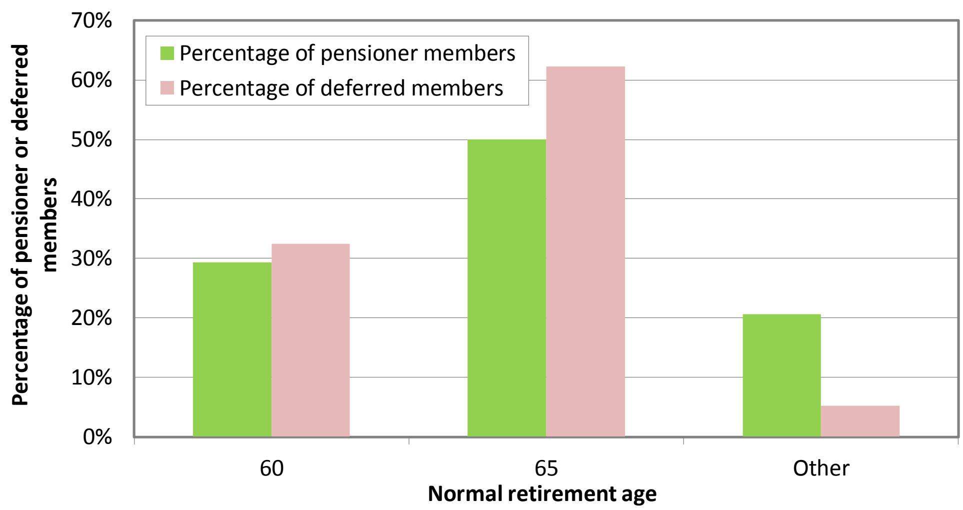
	Number within pensioner population	Percentage of total population	Annualised compensation (£000, pa)	Percentage of total annualised compensation
Dependants	12,094	15%	31,708	10%
Members	68,571	85%	292,048	90%
Total	**80,665**	**100%**	**323,756**	**100%**

Source: PPF/ The Pensions Regulator

50 per cent of pensioner and 62 per cent of deferred members have an NRA of 65.

11.6 Normal Retirement Age (NRA)

Chart 11.4 | Distribution of pensioner and deferred members by NRA



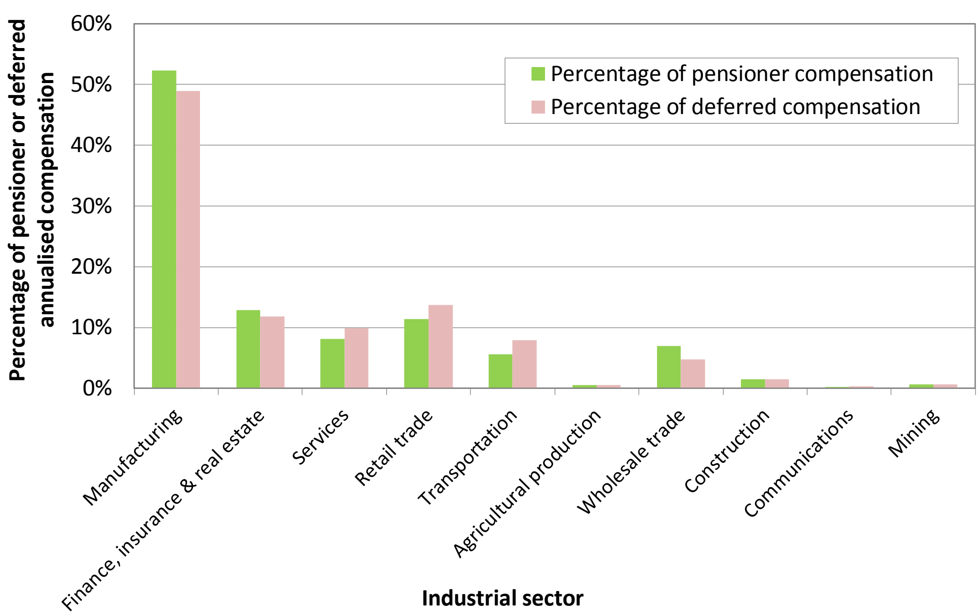
Source: PPF / The Pensions Regulator

The proportion of compensation directed to former employees of the manufacturing industry has fallen to 51 per cent from 57 per cent the previous year.

The largest share of compensation goes to the West Midlands, due to the high number of relevant sponsor insolvencies in the region.

11.7 Industry

Chart 11.5 | Pensioner and deferred member annualised compensation by industrial sector*

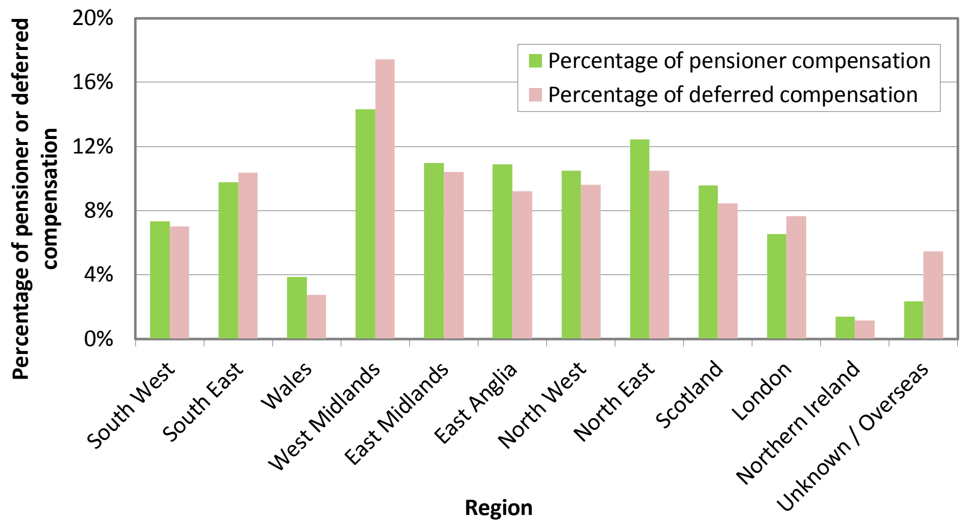


Source: PPF / The Pensions Regulator

*Based on US 1972 Standard Industrial Classification.

11.8 Geography

Chart 11.6 | Pensioner and deferred member annualised compensation by UK region



Source: PPF / The Pensions Regulator

The majority of compensation was accrued in relation to service before April 1997.

11.9 Period of service

Table 11.3 | Pre- and post-April 1997 annualised compensation for pensioners and deferred members

	Pensioners		Deferred	
	Compensation (£000, pa)	Percentage of total	Accrued Compensation (£000, pa)	Percentage of total
Pre-April 1997	249,019	77%	151,829	50%
Post-April 1997	74,737	23%	150,666	50%
Total	**323,756**	**100%**	**£302,494**	**100%**

Source: PPF / The Pensions Regulator

Table 11.4 | Value of non-AVC liabilities[51] attributable to pre and post April 1997 compensation for pensioners and deferred members

	Pensioners		Deferred	
	Liabilities (£000)	Percentage of total	Liabilities (£000)	Percentage of total
Pre-April 97	3,860,955	69%	2,709,212	44%
Post-April 97	1,767,774	31%	3,486,901	56%
Total	**5,628,729**	**100%**	**6,196,113**	**100%**

Source: PPF / The Pensions Regulator

[51] On the basis used for the PPF's Annual Report and Accounts 2012/13. AVC are additional voluntary contributions.

12 Risk Reduction

12.1 Summary

- The total number of recognised Contingent Assets (CAs) in place for the 2013/14 levy year was around 830, somewhat lower than in the previous year. This reflected a fall in the number of Type A contingent assets (company guarantees). Firmer standards of validation introduced by the PPF have led to the decrease in the number of recognised Type A CAs.
- The number of Type B CAs (security over holdings of cash, real estate and or securities) rose slightly.
- Schemes in the Purple 2013 dataset had by 10 April 2013 certified approximately £28.5 billion of Deficit Reduction Contributions (DRCs)[52] to reduce deficits for the 2013/14 levy year.
- Data from the Office for National Statistics (ONS) covering 350 large pension schemes (including 100 local authorities and some DC schemes) show that employers made £18.2 billion in special contributions in 2012 (i.e. those in excess of regular annual contributions), higher than £16.4 billion in 2011.
- Analysis of the Pension Regulator's latest technical provisions and recovery plan data show that in Tranche 6[53], the average recovery plan length shortened to 7.5 years, the average funding ratio as measured by assets divided by technical provisions increased to 82.6 per cent, while technical provisions as a percentage of s179 liabilities dropped to 110.2 per cent[54].
- Quarterly F&C Asset Management surveys of volumes traded by investment banks suggest that:
    - o £53.2 billion of liabilities were hedged using inflation derivatives in the year to the first quarter of 2013. Inflation hedging activity has fallen back from the record high observed in the second quarter of 2012.
    - o £47.8 billion of liabilities were hedged using interest rate derivatives in the year to the first quarter of 2013, down 4 per cent from 2012.
- Total risk transfer business covering buy-outs, buy-ins and longevity hedges amounted to £50.5 billion between the end of 2007 and the first quarter of 2013. Just under half of these deals were longevity hedges.

[52] The certificates cover deficit reduction contributions made since the last scheme valuation.

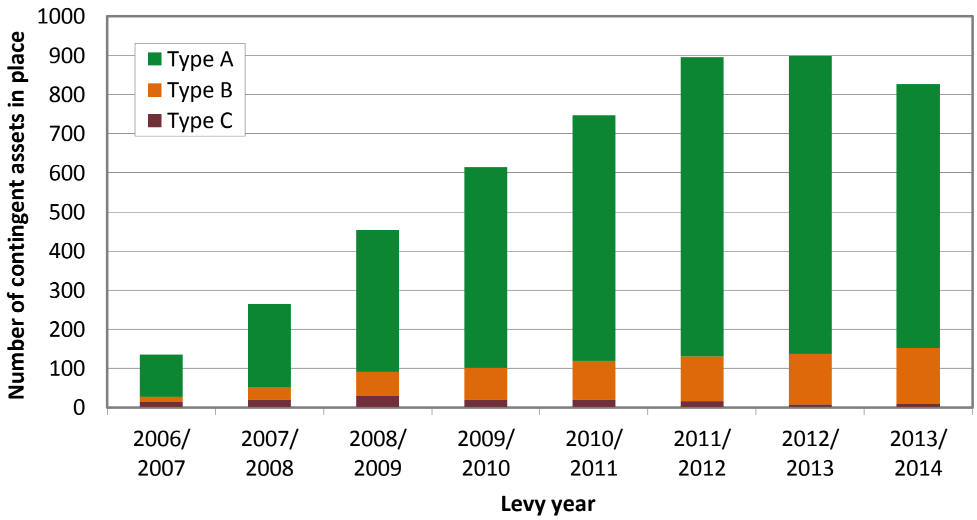
[53] Tranche 6 covers schemes with valuation dates between 22 September 2010 and 21 September 2011.

[54] Note that the average funding ratio and the ratio of TPs to s179 liabilities only covers schemes which were in deficit on their TP basis.

The total number of recognised contingent assets fell to approximately 830 for the 2013/14 levy year. This reflected a fall in the number of Type A CAs, as a result of firmer standards at validation introduced by the PPF.

12.2 Contingent assets

Chart 12.1 | Contingent assets by type *



Source: PPF / The Pensions Regulator

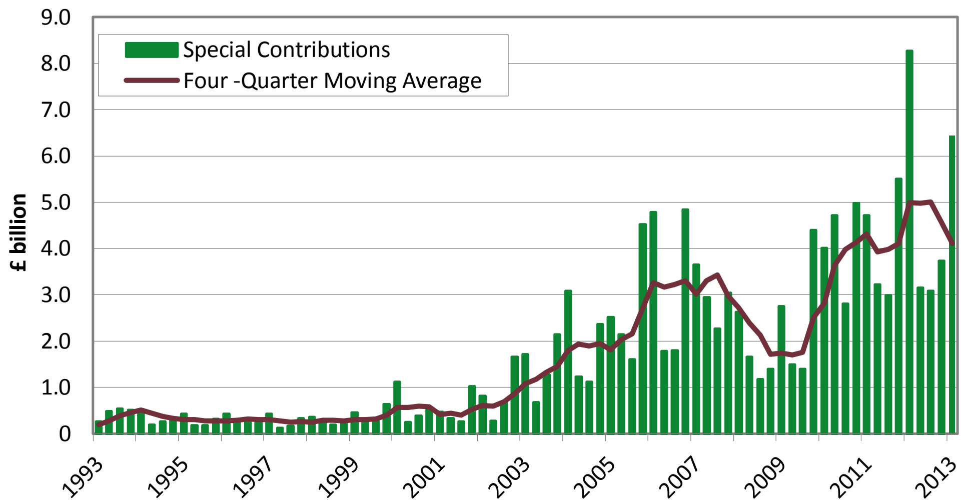
*The numbers of recognised contingent assets for each year presented in Chart 12.1 may change as a result of, for example, successful appeals.

Type A contingent assets are guarantees provided by the parent/group companies to fund the scheme, most commonly, to a pre-arranged percentage of liabilities. Type B contingent assets comprise security over holdings of cash, real estate and/or securities. Type C contingent assets consist of letters of credit and bank guarantees.

ONS data, covering 350 large pension schemes (including 100 local authorities and some DC schemes), show that employers made £18.2 billion in special contribution in 2012, higher than £16.4 billion in 2011. Special contributions increased significantly in the first quarter of 2013 but were still considerably lower than in the first quarter of 2012.

12.3 Special contributions

Chart 12.2 | Special contributions



Source: MQ5, 'Investment by Insurance Companies. Pension Funds and Trusts', ONS

In Tranche 6, recovery plan lengths decreased and the ratio of technical

12.4 The scheme funding regime

Table 12.1 | Technical Provision (TP) and Recovery Plan (RP) lengths (unweighted)*

Tranche	Valuation dates	Number of plans	Average recovery plan length years	Assets as a percentage of Technical Provisions	Technical provisions as a percentage of s179 liabilities
1	2005-06	1,928	7.8	79.8%	105.2%
2	2006-07	1,831	7.3	82.0%	114.2%
3	2007-08	1,801	8.4	80.9%	110.9%
4	2008-09	1,982	9.5	71.1%	101.8%
5	2009-10	1,733	8.1	78.8%	112.5%
6	2010-11	1,516	7.5	82.6%	110.2%

Source: PPF / The Pensions Regulator

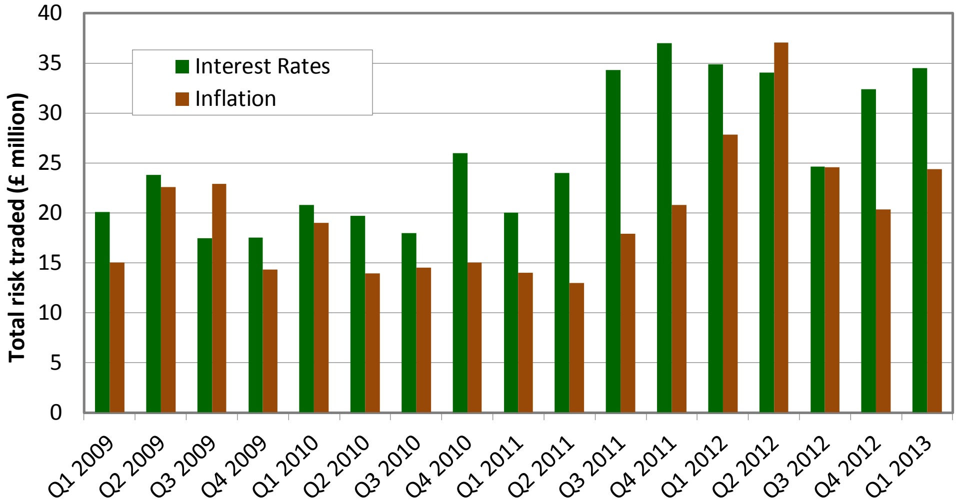
*Notes: (1) valuation dates run from 22 September to 21 September (2) the number of plans in Tranche 6 include 1,258 schemes from Tranche 3.

The ratio of technical provisions to s179 liabilities is affected by changes in nominal and real gilt yields.

12.5 Liability driven investment

The average quarterly interest rate and inflation risk traded by investment banks over the latest year was £31.4 million and £26.6 million respectively.

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

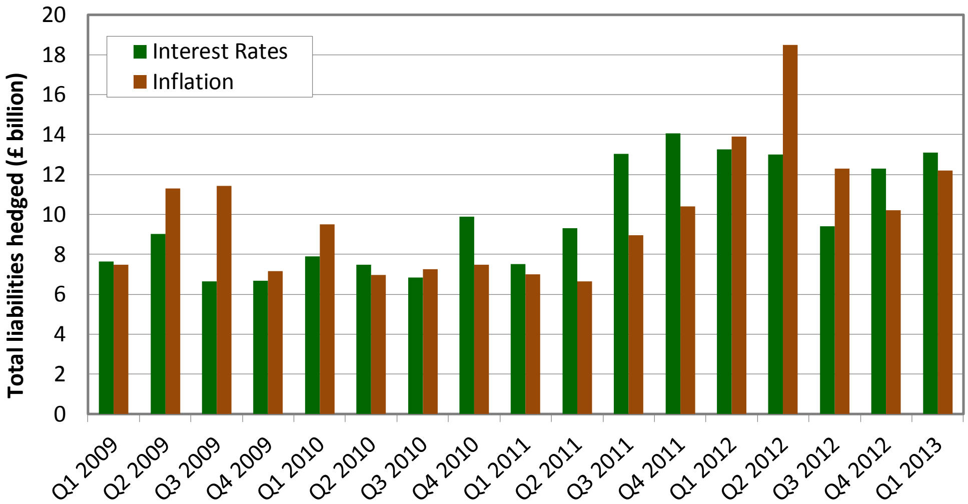


Source: F&C Asset Management

* Expressed as £ per 0.01% change in interest rates or RPI inflation expectations.

The average quarterly flow of liabilities being hedged against interest and inflation movements was £13.1 billion and £12.2 billion respectively over the year to Q1 2013. The flow of inflation and interest rate hedging business has increased markedly since Q2 2011.

Chart 12.4 | Average quarterly flow of liabilities being hedged*



Source: F&C Asset Management

* Total liabilities hedged are based on economic risk hedged by pension funds.

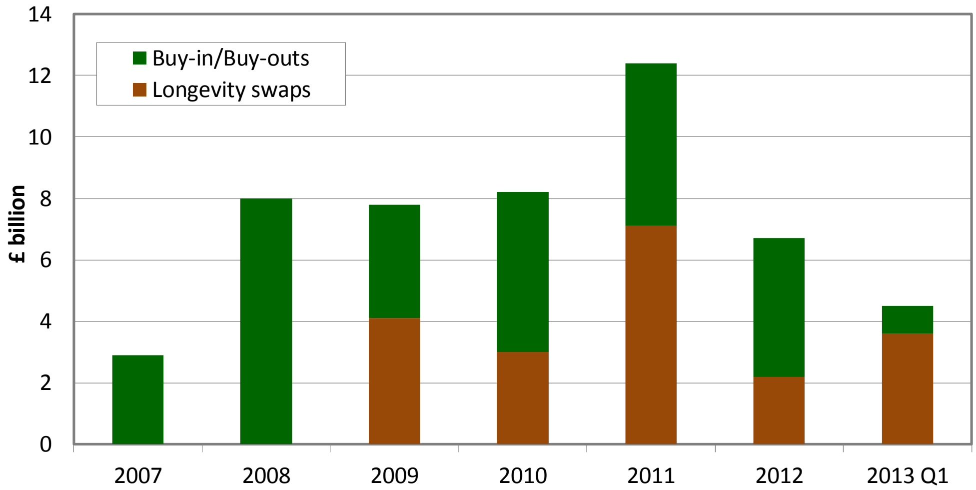
12.6 Buy-out, buy-in and longevity hedging

Buy-out and buy-in transactions provide schemes with the opportunity to remove risk relating to all or part of their liability. Under a buy-out deal, a scheme transfers its entire liability and scheme assets to an insurer in exchange for a premium. Insurers tend to require assets significantly in excess of scheme liabilities to compensate for the risk transferred. Buy-in deals are effectively partial buy-outs where the insurance policy is a scheme investment.

While both longevity swaps and buy-in/buy-out can mitigate the risk of greater than expected life expectancy, under the former there is no transfer of the underlying scheme assets to a counterparty. Longevity swaps entail the pension scheme exchanging fixed payments for cashflows that vary in accordance with the longevity experience of a reference population (either the named scheme members or a wider sample).

The value of risk transfer deals since 2007 sums to £50.5 billion. Just under half of these deals were longevity swaps.

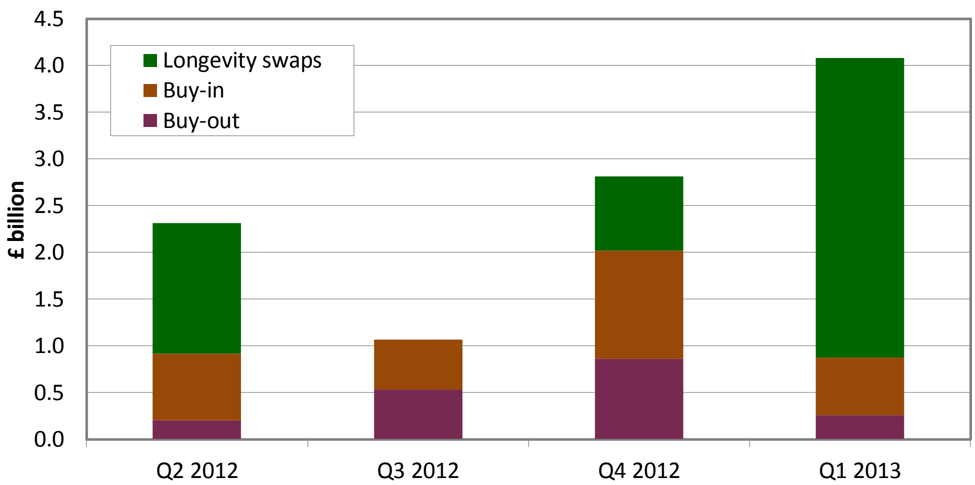
Chart 12.5 | Value of risk transfer deals since 2007



Source: Hymans Robertson, "Buy-outs, buy-ins and longevity hedging"

Over the year to Q1 2013, the total value of transfer deals was £10.3 billion of which 53 per cent were longevity swaps, 29 per cent were buy-ins and 18 per cent buy-outs.

Chart 12.6 | Value of risk transfer deals in the year to Q1 2013



Source: Hymans Robertson, "Buy-outs, buy-ins and longevity hedging"

Chapter 3 appendix

Table 3a.1 | Schemes by size band

Membership group	Status				All
	Open	Closed	Closed to future accrual	Winding up	
5 to 99 members	352	1,054	720	84	2,210
100 to 999 members	281	1,519	913	25	2,738
1,000 to 4,999 members	127	490	181	-	-
5,000 to 9,999 members	39	121	30	-	-
Over 10,000 members	42	142	24	0	208
Total	841	3,326	1,868	115	6150

Note that results indicating five or less schemes have been supressed to preserve confidentiality.

Table 3a.2 | Members by size band

Membership group	Status				All
	Open	Closed	Closed to future accrual	Winding-up	
5 to 99 members	11,963	47,197	34,914	2,767	96,841
100 to 999 members	99,080	562,247	293,987	8,953	964,267
1,000 to 4,999 members	307,758	1,093,605	394,324	9,809	1,805,496
5,000 to 9,999 members	291,409	846,522	204,706	6,619	1,349,256
Over 10,000 members	1,907,748	4,833,013	474,287	0	7,215,048
Total	2,617,958	7,382,584	1,402,218	28,148	11,430,908

Table 3a.3 | Membership by member type

Membership group	Active members	Deferred members	Pensioner members	All
5 to 99 members	11,687	50,274	34,880	96,841
100 to 999 members	133,423	506,855	323,989	964,267
1,000 to 4,999 members	278,864	897,951	628,681	1,805,496
5,000 to 9,999 members	210,534	631,226	507,496	1,349,256
Over 10,000 members	1,304,015	3,041,886	2,869,147	7,215,048
Total	1,938,523	5,128,192	4,364,193	11,430,908

Table 3a.4 | Schemes, membership, and s179 liability by industry

Industry	Total number of schemes	Total % of schemes	Total DB members	Total % of memberships	s179 liability (£ bn)	Total % s179 liability
Agricultural production	60	0.3	38,578	1	3	0.2
Communications	42	4	453,908	0.7	79	5.9
Construction	190	3.2	363,276	3.1	44	3.3
Finance, insurance and real estate	1,005	21.4	2,451,673	16.3	295	22.2
Manufacturing	1,815	26.6	3,037,870	29.5	337	25.3
Mining	47	0.3	39,030	0.8	7	0.5
Nonclassifiable establishments	245	5.8	666,650	4	100	7.5
Public administration	38	0.7	74,503	0.6	7	0.6
Retail trade	290	11.2	1,283,724	4.7	96	7.2
Services	1,464	14.6	1,666,597	23.8	196	14.8
Transportation	291	5.5	624,075	4.7	73	5.5
Utilities	86	2.5	290,442	1.4	48	3.6
Wholesale trade	577	3.9	440,582	9.4	45	3.4

Chapter 4 appendix

Table 4a.1 | Scheme size

		Membership group				
		5 to 99	100 to 999	1,000 to 4,999	5,000 to 9,999	10,000 and over
£ bn	Assets	12.8	98.5	168.8	136.7	701.7
	s179 liabilities	13.4	119.8	211.1	162.5	822.4
	Buy-out liabilities	18.8	163.7	284.1	219.6	1,140.5
Schemes by s179 funding group	0% to 50%	68	103	26	-	-
	50% to 75%	596	1,117	349	65	54
	75% to 100%	825	1,060	334	88	111
	Over 100%	721	458	94	32	39
Schemes by buy-out funding groups	0% to 50%	404	732	207	47	36
	50% to 75%	1,154	1,617	501	115	141
	75% to 100%	494	347	84	25	29
	Over 100%	158	42	11	-	-

Note that results indicating five or less schemes have been suppressed to preserve confidentiality.

Table 4a.2 | Scheme maturity

		Proportion of s179 liabilities relating to pensioners			
		25% and less	Between 25% and 50 %	Between 50% and 75%	Between 75% and 100%
£ bn	Assets	172.2	616.0	306.3	24.1
	s179 liabilities	246.0	744.7	318.1	20.4
Schemes by s179 funding group	0% to 50%	161	39	-	-
	50% to 75%	1,141	941	93	6
	75% to 100%	714	1297	377	30
	Over 100%	313	468	420	143

Note that results indicating five or less schemes have been suppressed to preserve confidentiality.

Table 4a.3 | Scheme status

		Scheme status			
		Open	Closed to new entrants	Closed to future accrual	Winding-up
£ bn	Assets	219.6	786.5	109.2	3.1
	s179 liability	283.5	910.5	132.4	2.8
	Buy-out liability	380.3	1,260.6	181.8	4.0
Schemes by s179 funding groups	0% to 50%	40	98	64	-
	50% to 75%	336	1,132	699	-
	75% to 100%	307	1,368	709	34
	Over 100%	158	728	396	62
Schemes by buy-out funding group	0% to 50%	216	726	469	15
	50% to 75%	418	1,985	1,091	34
	75% to 100%	157	518	265	39
	Over 100%	50	97	43	27

Note that results indicating five or less schemes have been suppressed to preserve confidentiality.

Table 4a.4 | Industry

	Schemes by status				£ bn	
	Open	Closed	Closed to future accrual	Winding-up	Assets	s179 Liability
Agricultural production	-	30	23	-	2.4	2.6
Communications	-	28	9	-	62.4	79.0
Construction	33	95	58	-	40.4	43.7
Finance, insurance and real estate	105	574	305	21	269.9	294.9
Manufacturing	176	964	651	24	278.6	336.7
Mining	12	28	7	-	6.2	7.2
Public administration	16	21	-	-	5.5	7.3
Retail trade	23	142	109	16	81.9	95.9
Services	293	754	385	32	158.7	196.1
Transportation	66	168	56	-	59.3	72.6
Utilities	18	56	10	-	43.3	48.3
Wholesale trade	44	338	186	9	36.7	44.9

Note that results indicating five or less schemes have been supressed to preserve confidentiality.

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

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.

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 nonassociated 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.

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