







# The Purple Book

DB PENSIONS UNIVERSE RISK PROFILE | 2012

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 seventh 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 deteriorated somewhat over the 12 months to March 2012, with little subsequent sign of improvement:

- UK GDP fell by 0.2 per cent year-on-year in the first quarter of 2012.
- Insolvency Service statistics showed that the number of company liquidations rose a little in the year to Q1 2012 but other company insolvencies (receiverships, administrations, and company voluntary arrangements) edged lower.
- The Bank of England kept its policy rate unchanged at 0.5 per cent but increased Quantitative Easing to £325 billion from £200 billion.
- The FTSE all-share index fell by 2 per cent in the year to March 2012 after a 55 per cent increase between March 2009 and March 2011.
- 10-year gilt yields declined to 2.2 per cent from 3.7 per cent while 10-year AA corporate bond yields fell to 3.7 per cent from 4.9 per cent.
- Scheme funding on a s179<sup>1</sup> basis deteriorated markedly between end-March 2011 and end-March 2012 – the funding ratio (assets divided by liabilities) fell from 100<sup>2</sup> per cent to 83 per cent.

<sup>1</sup>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.

<sup>2</sup> This number is based upon the latest s179 valuation guidance , please refer to <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section\_179\_Assumptions\_Guidance\_VA6\_Apr11.pdf</u>

				End March	)			
UK	2006	2007	2008	2009	2010	2011	2012	End September 2012
GDP growth year-on- year	3.2%	2.4%	2.2%	-5.4%	-0.2%	1.6%	-0.2%	0.0%
Company liquidation rate – 12 months prior	0.7%	0.6%	0.6%	0.8%	0.8%	0.7%	0.7%	0.7%*
Company liquidations	3,505	3,190	3,217	4,915	4,036	4,121	4,270	4,115*
UK corporate insolvency other**		868	1,158	1,783	1,343	1,314	1,290	1,310*
Company insolvency rate – 12 months prior		0.7%	0.7%	1.1%	0.9%	0.9%	0.9%	0.9%*
FTSE all share level	3,047	3,283	2,927	1,984	2,910	3,068	3,003	2,999
10-year gilt yield	4.4%	5.0%	4.4%	3.2%	3.9%	3.7%	2.2%	1.7%
10-year AA corporate bond yield	4.9%	5.5%	5.6%	4.8%	4.9%	4.9%	3.7%	2.9%
Bank of England policy rate	4.50%	5.25%	5.25%	0.50%	0.50%	0.50%	0.50%	0.50%
QE	-	-	-	£15b	£200b	£200b	£325b	£375b

### Table 1.1 | UK economic and financial environment

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

\*These relate to Q2

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

Since March 2012, conditions have remained difficult. Economic activity has been broadly unchanged in year-on-year terms (adjusting for the impact of the Jubilee bank holiday on Q2 GDP). Gilt yields fell below 2 per cent resulting in a further deterioration in universe s179 scheme funding to 77 per cent by end-September despite some pick up in equity markets. Company liquidations, however, fell back a little in the second quarter.

Much of the analysis of the 2012 Purple Book ('Purple 2012') is based on new information from scheme returns issued in December 2011 and January 2012 and returned to the regulator by the end of March 2012. As in the previous two years, schemes in the PPF assessment period (300 in total, representing around 0.5 per cent of total universe liabilities)<sup>3</sup> have been removed so as to accurately capture the risk presented by DB schemes whose employers had not experienced an insolvency event by 31 March 2012.

The Purple 2012 dataset covers 6,316 PPF-eligible DB schemes. This represents some 98 per cent of the estimated total number of schemes and over 99 per cent of estimated total liabilities. The 2012 dataset is similar in size to that used for the last four Purple Books and is significantly larger than the datasets used in the first two.

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 at 31 March 2012.

For the 2012-13 levy year, the PPF introduced a new formula for calculating the risk-based levy paid by each scheme<sup>4</sup>. This has involved a number of changes: use of more current data; use of smoothed assets and liabilities in calculating underfunding risk (to reduce the impact of short-term financial market volatility); taking into account investment risk by calculating stressed assets; and the introduction of ten Levy Bands with each band having an associated Levy Rate (rather than mapping 100 failure scores onto insolvency probabilities). Purple 2012 includes analysis of some of the new scheme information needed for the New Levy Formula levy calculations, in particular that on the impact of investment risk.

<sup>3</sup> This recognises all segregated parts of schemes as separate schemes. For analytical purposes, in Chapter 10, Schemes in Assessment, scheme sections and segregated parts have both been amalgamated into one scheme.

<sup>4</sup><u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/new\_levy\_booklet\_12</u> <u>1 3.pdf</u>

### 1.2 The Data

- The main body of the analysis in Purple 2012 is based on new scheme returns for a dataset of 6,316 Defined Benefit (DB) schemes, covering 11.7 million memberships<sup>5</sup>. This represents around 98 per cent of PPF-eligible schemes and over 99 per cent of universe liabilities. Complete information is not yet available for the remaining small schemes and, hence, these have been excluded from the sample.
- It is estimated that the eligible universe of schemes, excluding those in assessment at end-March 2012, was around 6,460, a reduction from 6,550 in March 2011.
- The dataset represents a similar proportion of total PPF-eligible schemes to those used in recent Purple Books (and much higher than that used in the first two Purple Books).
- The fact that the dataset accounts for such a large proportion of the universe means that results for the whole universe would be only slightly different from the results presented in Purple 2012<sup>6</sup>.

#### 1.3 Scheme Demographics

- The proportion of open schemes has fallen by 2 percentage points to 14 per cent compared to the Purple 2011 dataset.
- The largest proportion of open schemes is found in the 10,000 and over scheme membership category.
- 28 per cent of memberships in the dataset are in open schemes.
- 8 per cent of the memberships are in the 26 per cent of schemes closed to future accrual.
- 18 per cent of memberships in the sample are active.

<sup>5</sup>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.

<sup>6</sup>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 2012 sample.

### 1.4 Scheme Funding

- Dataset assets total £1,026.8 billion at 31 March 2012.
- 2012 data set s179 liabilities as at 31 March 2012 total £1,231 billion on a s179 basis and £1,702.6 billion on a full buy out basis.
- The aggregate s179 funding position of the schemes in the Purple 2012 dataset as at 31 March 2012 was a deficit of £204.2 billion. The deficit one year earlier was £1.2 billion and the s179 funding ratio fell from 100 per cent<sup>7</sup> to 83 per cent between 2011 and 2012.
- The aggregate full buy out position is a deficit of £675.8 billion. The deficit one year earlier was £467.0 billion and the estimated full buy out funding position has fallen from 67 per cent to 60 per cent.
- The full buy-out funding ratio is 60 per cent.
- The total deficit on a s179 basis, for all those schemes in deficit is £231.3 billion as at 31 March 2012. This compare with a total deficit of £78.3 billion a year earlier.
- The total deficit on an estimated full buy-out basis, for all of those schemes in deficit is £677.3 billion. This compares with a deficit of £470.7 billion a year earlier.
- 39 per cent of s179 liabilities relate to pensioner members with the remaining liabilities split evenly between active and deferred memberships.

### 1.5 Funding Sensitivities

This summary was updated on the 26 November 2012 based on revisions made to Charts 5.1 - 5.6 (excluding Chart 5.3); please see Chapter 5 for further details.

- All the model-based funding sensitivities in this chapter are on a s179 basis, taking the funding position as at 31 March 2012<sup>8</sup> as the base and using the Purple 2012 dataset. The sensitivities do not take into account the use of derivative instruments to hedge changes in interest rates, inflation, equity levels or longevity.
- 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 48 percentage points. The highest funding ratio was in June 2007 at 124 per cent and the lowest ratio of 76 per cent was in May 2012.

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section 179 Assumpti ons Guidance VA6 Apr11.pdf

<sup>8</sup> Using the latest s179 valuation guidance as in Chapter 4

<sup>&</sup>lt;sup>7</sup> This is based on the latest s179 valuation guidance as opposed to the 106 per cent reported in Chapter 5. For further details please follow the link below:

- The aggregate balance has varied by around £478 billion (with the greatest surplus in June 2007 at £161 billion and the greatest deficit in May 2012 at £317 billion).
- The assumptions were changed on 31 March 2008, 31 October 2009 and 1 April 2011. The first two changes improved scheme funding by around £45 billion and £75 billion respectively, while the third worsened scheme funding by around £45 billion<sup>9</sup>.
- The estimated number of schemes in deficit on a s179 basis was at its lowest point in June 2007 at 1,513 schemes (24 per cent of the dataset) and peaked in May 2012 at 5,433 (85 per cent).
- Since end-March 2012, aggregate scheme funding has fallen from 83 per cent to 82 per cent in September 2012.
- A 0.1 percentage point (10 basis point) reduction in gilt yields raises aggregate scheme liabilities by 1.9 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.
- A 0.1 percentage point (10 basis point) rise in gilt yields decreases the end-March 2012 aggregate deficit by £19.4 billion from £204.2 billion to £184.8 billion while a 2.5 per cent rise in equity prices would reduce the aggregate deficit by £9.1 billion.

### 1.6 Insolvency Risk

- The insolvency rate of sponsoring employers of PPF-eligible Defined Benefit (DB) schemes broadly shadows the changes in the insolvency rates of all employers in the UK. However, during the 2008-09 recession the PPF's four-quarter moving average did not rise to the same extent as the UK's. Also, since the first quarter of 2011 the PPF's universe has exhibited a greater fall in insolvency rates compared to the UK average.
- Over the first eight months of 2012, 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, increasing only slightly from 0.66 per cent to 0.70 per cent.
- The UK economy came out of recession in the third quarter of 2009. GDP rose strongly until the third quarter of 2010. Since then growth has been fairly modest up until the third quarter of 2012 when zero annual growth was reported.
- The 2008/09 recession resulted in a large rise in the total level of corporate liquidations in England and Wales up from 3,241 in the first quarter of 2008 to a peak of 5,041 in the second quarter of 2009, an increase of 56 per cent. In the second quarter of 2012, a total of 4,115 liquidations were recorded. (There are around 2.9 million companies in the UK<sup>10</sup>, compared to around 18,000 in the PPF universe).

<sup>9</sup>For more information see PPF 7800 January 2009, November 2009 and May 2011 <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF%207800%20Janua</u> <u>ry%2009.pdf</u>

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF 7800 November 09.pdf

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF\_7800\_May\_11.pdf

### 1.7 Asset Allocation

- Purple 2012 data show a continuation of most of the trends seen in recent years: a falling equity allocation and a rising proportion in hedge funds; within equities a rising overseas share and falling UK share; and within bonds a rising corporate bond allocation and falling government allocation.
- From 2012/13, the calculation of the levy<sup>11</sup> takes into account the investment risk of the schemes. A consequence of this change is that schemes have provided more accurate asset allocations. Purple 2012 data indicates a significant drop in reported insurance policy holdings, which reflects a reclassification by several schemes of their insurance policy allocation following discussion with the PPF. This affected mainly small schemes.
- The equity allocation fell to 38.5 per cent from 41.1 per cent in 2011. The proportion of gilts and fixed interest rose to 43.2 per cent from 40.1 per cent in 2011. The proportion of hedge funds increased from 2.4 per cent to 4.5 per cent.
- The overseas proportion of total equity holdings rose from 57.2 per cent in 2011 to 60.0 per cent in 2012 with the UK proportion falling from 38.0 per cent to 33.9 per cent. The balance of holdings in unquoted equities increased from 4.8 per cent in 2011 to 6.1 per cent in 2012.
- Within total gilts and fixed interest, the corporate fixed interest securities' allocation rose from 44.3 per cent in 2011 to 44.8 per cent in 2012. Meanwhile, the proportion of government fixed interest fell from 19.6 per cent to 17.7 per cent. The balance of holdings in index-linked rose to 37.5 per cent from 36.1 per cent in 2011.
- 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<sup>12</sup>, the allocation to UK equities is still bigger (49.9 per cent) than that for overseas equities (48.5 per cent), although the gap between the two has continued to narrow.
- Considering gilts and fixed interest on a simple-average<sup>12</sup> basis, the allocation to government fixed interest fell from 31.2 per cent to 28.2 per cent while the allocation to corporate fixed interest securities rose from 47.1 per cent to 49.4 per cent. The average allocation to index-linked securities rose from 21.7 per cent to 22.4 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.

<sup>&</sup>lt;sup>11</sup> See the 2012/13 Pension Protection Levy Consultation Document for further details: <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1213\_consultation\_document.pdf</u>

<sup>&</sup>lt;sup>12</sup> Simple averages are defined as the mean without weighting for scheme size.

### 1.8 Overall Risk Developments

- The Long-Term Risk Model (LTRM) is the key tool that the Board of the Pension Protection Fund (PPF) uses to understand and quantify the risks it faces over the long term. It helps the Board of the PPF assess the level of resources required to meet potential future claims.
- There was a clear increase in long-term risk to the Fund between end-March 2011 and end-March 2012, which was largely attributable to a worsening of pension scheme funding 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 2012, suggest that the PPF has an 84 per cent probability of meeting this objective compared with 87 per cent one year earlier<sup>13</sup>.
- Looking at shorter-term risk measures, the total weighted deficit (scheme sponsor one-year-ahead insolvency probability multiplied by scheme deficit) for deficit schemes stood at £1.8 billion at end-March 2012, up from £0.3 billion at end-March 2011.
- Schemes with sponsors in the manufacturing sector have the largest weighted deficit at around 44 per cent of the total.

### 1.9 Levy Payments

- For six 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 £3.3 billion. For the 2011/12 levy year, the PPF expected to collect £596 million from 6,439 schemes, down from £663 million in 2010/11.
- The dataset used in this chapter is based on 6,167 schemes who have paid £580 million in total. This is somewhat smaller than the £596 million expected to be collected.
- For 2011/12, total levies amounted to 0.08 per cent of total scheme assets, a slight decrease on the 0.09 per cent in the previous year. The number of schemes paying no risk-based levy in 2011/12 was 296, up from 195 in the previous year.
- In 2011/12, the number of schemes paying no risk-based levy represented 5 per cent of total schemes and 3 per cent of total liabilities, compared to 3 and 1 per cent respectively for 2010/11.

<sup>13</sup> This probability is sensitive to a range of modelling assumptions. For a description of the modelling methodology and assumptions employed, see <a href="http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF\_Funding\_Strategy\_Document.pdf">http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF\_Funding\_Strategy\_Document.pdf</a>

- In 2011/12, 626 schemes had their risk-based levy capped at 0.75 per cent of liabilities. This is 10.2 per cent of the total number of schemes. The liabilities of capped schemes equalled £15 billion or 1.6 per cent of total liabilities.
- The top 100 levy payers accounted for £227 million or 39.1 per cent of the total levy, but 45.8 per cent of liabilities.
- The distribution of levy by industry was broadly similar in 2011/12 to that in 2010/11. Manufacturing, Services, and Finance, insurance and real estate services accounted for approximately 72 per cent of the eligible DB universe, but also paid a similar proportion of the total PPF levy.
- The Manufacturing industry represents the largest portion of the Defined Benefit (DB) universe and thus pays the largest proportion of the total levy.
- For full details of the 2011/12 levy determination, please visit <u>http://www.pensionprotectionfund.org.uk/levy/1112\_determination/Pages/11-12Determination.aspx</u>.

### 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<sup>14</sup>. The PPF aims to complete the assessment period for most schemes within two years.
- The PPF's Annual Report and Accounts 2011/12 show that there were 300 schemes in assessment at 31 March 2012 compared with 369 at 31 March 2011. Of the 300 figure, 251 were recognised in provisions on the PPF balance sheet, down from 314 at 31 March 2011. 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 211 schemes (with 125,000 members) in a PPF assessment period as at 31 March 2012, compared with 268 schemes (with 225,000 members) a year earlier. As a result, the number of schemes in assessment in this chapter is less than reported in the 2011/12 Annual Report and Accounts.
- The fall over the year reflects 68 new schemes entering and remaining in assessment, 107 schemes transferring into the PPF and 18 being rescued, rejected or withdrawn.
- On a s179 basis, as at 31 March 2012, the aggregate assets of schemes in assessment totalled £6.5 billion and their liabilities £7.9 billion. Liabilities averaged £37.4 million per scheme and assets averaged £30.6 million.
- Schemes with liabilities below £5 million account for 36.0 per cent of schemes in assessment but only 2.1 per cent of the scheme liabilities in assessment, while schemes with liabilities of over £100 million account for 5.2 per cent of schemes in assessment but 54.6 per cent of liabilities in assessment.

<sup>14</sup> See Chapter 3, Scheme Demographics for description of the eligibility test.

- The aggregate funding level (total assets divided by total liabilities) of the schemes in assessment as at 31 March 2012 was 82.0 per cent, below the aggregate funding levels of the schemes in the Purple 2012 dataset (83.4 per cent) and also slightly below the aggregate funding level of the schemes in assessment a year earlier (86.8 per cent).
- According to the latest scheme-return data prior to their entering assessment, schemes invested most heavily in equities (42.0 per cent of total assets) and gilts and fixed interest (28.0 per cent). In the Purple 2012 dataset equities account for 43.7 per cent and gilts and fixed interest account for 36.1 per cent. The balance was held in insurance policies, cash, property and other investments.
- Where the industry is known, 41.3 per cent of the companies sponsoring schemes in assessment operated within the Manufacturing sector. The Finance, insurance and real estate sector accounts for 15.9 per cent of sponsors of schemes in assessment and the Services sector, 15.4 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<sup>15</sup>.
- In 2011/12, the PPF made compensation payments of £203.3 million compared to £119.5 million in 2010/11.
- At 31 March 2012, 57,506 members were in receipt of PPF compensation, up from 33,069 in the previous year. Average compensation in payment stood at  $\pm 4,024^{16}$  a year. The number of members with compensation not yet in payment (deferred members) as at 31 March 2012 totalled 70,608. For these members, the average accrued periodic compensation (before any prospective application of the compensation cap at NRA) was £3,289 a year.
- As at 31 March 2012, males constituted 66 per cent of pensioner and deferred members<sup>17</sup>.
- Spouses and dependants account for 15 per cent of those currently in receipt of compensation. They receive 9 per cent of the total compensation in payment.
- Around 57 per cent of compensation is attributable to former employees of the manufacturing sector, down from 68 per cent the year before.

<sup>15</sup> For full details of the conditions and processes governing the payment of PPF compensation, please visit <u>http://www.pensionprotectionfund.org.uk/Pages/Compensation.aspx</u>

<sup>16</sup> 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 2012.

<sup>17</sup> Unless otherwise stated, totals and averages relating to pensioners include dependants.

- The West-Midlands region has the largest receipt of compensation, currently at 17 per cent of total pensioner compensation.
- As at 31 March 2012, only 221 pensioners were affected by the compensation cap<sup>15</sup>.
- 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.

#### 1.12 Risk Reduction

- The total number of recognised Contingent Assets (CAs) in place for the 2012/13 levy year was around 900, virtually unchanged from the previous year. Firmer standards of validation introduced by the PPF have limited the increase in the number of recognised CAs.
- Schemes in the Purple 2012 dataset had by 10 April 2012 certified approximately £36.3 billion of Deficit Reduction Contributions (DRCs)<sup>18</sup> to reduce deficits for the 2012/13 levy year. This was higher than the £28.0 billion certified for the previous levy year.
- The DRCs were not only paid by companies sponsoring the largest schemes; around 44.1 per cent of the £36.3 billion was paid by employers sponsoring schemes with fewer than 10,000 members (97 per cent of the 2012 dataset).
- Data from the Office for National Statistics (ONS) covering 350 large pension schemes, including 100 local authorities, show that employers made £16.0 billion in special contributions in 2011 (i.e. those in excess of regular annual contributions), the same as in 2010. In the first quarter of 2012 they were running at an annual rate of £18.8 billion.
- Analysis of the Pension Regulator's latest technical provisions and recovery plan data shows that in Tranche 5<sup>19</sup>, the average recovery plan length shortened to 8.1 years, the average funding ratio as measured by assets divided by technical provisions increased to 78.8 per cent, and technical provisions as a percentage of s179 liabilities rose to 112.5 per cent.

<sup>&</sup>lt;sup>18</sup> The certificates cover deficit reduction contributions made since the last scheme valuation.

<sup>&</sup>lt;sup>19</sup> Tranche 5 covers schemes with valuation dates between 22 September 2009 and 21 September 2010.

- Quarterly F&C Asset Management surveys of volumes traded by investment banks suggest that:
  - £53.3 billion of liabilities were hedged using interest rate derivatives in the year to the second quarter of 2012, up 21 per cent from 2011.
  - £58.4 billion of liabilities were hedged using inflation derivatives in the year to the first quarter of 2012. Inflation hedging activity totalled £18.5 billion in the second quarter of 2012, exceeding 2009 record levels.
- Total risk transfer business covering buy-outs, buy-ins and longevity hedges amounted to around £40 billion between the end of 2006 and the first quarter of 2012. Most of the total reflected longevity hedges, 23 per cent reflected buy-ins and 21 per cent buy-outs. £7 billion of longevity hedges were put in place in the second half of 2011, up from £3 billion traded in 2010.

# 2

### The Data

### 2.1 Summary

- The main body of the analysis in Purple 2012 is based on new scheme returns for a dataset of 6,316 Defined Benefit (DB) schemes, covering 11.7 million memberships<sup>20</sup>. This represents around 98 per cent of PPF-eligible schemes and over 99 per cent of universe liabilities. Complete information is not yet available for the remaining small schemes and, hence, these have been excluded from the sample.
- From Purple 2010, schemes in assessment have been excluded from the dataset so as to capture accurately the risk presented by DB schemes whose employers had not experienced an insolvency event. Before Purple Book 2010, schemes were excluded only when they transferred into the PPF.
- As at end-March 2012, there were 300<sup>21</sup> schemes in assessment with total assets of £6.5 billion and total s179 liabilities of £7.9 billion. These represent around 0.6 per cent of total assets and liabilities of the Purple 2012 universe (1.0 per cent in 2011). Given their relatively small size, the implications of their removal for year-on-year comparisons are limited.
- It is estimated that the eligible universe of schemes, excluding those in assessment at end-March 2012, was around 6,460, a reduction from 6,550 in March 2011.
- The dataset represents a similar proportion of total PPF-eligible schemes to those used in recent Purple Books (and much higher than that used in the first two Purple Books).
- The fact that the dataset accounts for such a large proportion of the universe means that results for the whole universe would be only slightly different from the results presented in Purple 2012<sup>22</sup>.
- 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.

<sup>21</sup> Treating all segregated parts of schemes as separate schemes.

<sup>22</sup> This point is illustrated in Annex A of Purple 2009. The summary statistics differed little between the sample and extended 2008 datasets. The high coverage suggests a similar outcome in relation to the 2012 sample.

<sup>&</sup>lt;sup>20</sup> 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.

### 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.

#### 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 2011 and January 2012 and returned by 31 March 2012.

#### 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.

### 2.3 The PPF-eligible DB universe<sup>23</sup>

### Table 2.1 | Distribution of schemes excluding those in assessment by number of membersas at 31 March 2012

Number of members	Fewer than 100	100 – 999	1,000 – 4,999	5,000 – 9,999	10,000+	Total Schemes
Estimated Purple 2012 universe	2,338	2,887	831	192	212	6,460
Purple 2012 dataset	2,260	2,828	824	192	212	6,316
Purple 2012 dataset as % of 2012 PPF- eligible DB universe	96.7%	98.0%	99.2%	100.0%	100.0%	97.8%

The Purple 2012 sample covers around 98 per cent of the estimated number of PPF-eligible schemes; the bulk of missing schemes have under 1,000 members.

Source: PPF / The Pensions Regulator

### Table 2.2 | Distribution of s179 liabilities (£ billion) excluding those of schemes in theassessment process by number of members as at 31 March 2012

Number of members	Fewer than 100	100 – 999	1,000 – 4,999	5,000 – 9,999	10,000+	Total Liabilities
Estimated Purple 2012 universe	13.0	114.2	196.0	149.6	762.9	1,235.7
Purple 2012 dataset	12.6	111.8	194.1	149.6	762.9	1,231.0
Purple 2012 dataset as a % of 2012 PPF- eligible universe	96.7%	98.0%	99.2%	100.0%	100.0%	97.8%

Source: PPF / The Pensions Regulator

\*Note: The percentages displayed in this table may not be the same as the actual percentages because of rounding.

### Table 2.3 | Purple datasets and universe estimates, including schemes in the PPF assessment process

Year	2007	2008	2009	2010	2011	2012
Estimated eligible DB universe	7,500	7,300	7,200	7,000	6,920	6,760
Purple dataset (as a percentage of final universe)	5,892 (79.6%)	6,898 (94.5%)	6,885 (95.6%)	6,972 (99.6%)	6,801 (98.3%)	6,616 (97.8%)

Source: PPF / The Pensions Regulator

<sup>23</sup>The universe estimates are based on an assessment of the number of additional schemes for which full data will become available.

The Purple 2012 sample covers almost all scheme liabilities.

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

### 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 2012 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 2011 dataset.

### 2.5 Information on investment risk

The PPF's new levy framework<sup>24</sup> was introduced for the 2012/13 levy year.

One of the aims was to make the individual levies more stable and predictable over a three year time period. Key changes to the way the levy is calculated for 2012/13 are:

- Use of more current data.
- Smoothing of assets and liabilities over five years. In previous years, asset and liability values were simply assessed at a set date and could be significantly impacted by peaks or troughs in the markets.
- Stressing of assets and liabilities. From 2012/13 the PPF will take scheme investment risk into account when calculating the levy. This is done for each scheme by adjusting the asset and liability values used to calculate the underfunding risk. Schemes with liabilities of £1.5 billion or more were required to carry out a bespoke stress calculation showing the impact of investment risk on the value of their assets. Other schemes could provide the bespoke stress calculation if they wished.
- In calculating insolvency risk, the PPF continues to use D&B insolvency scores. However, the failure score used is now the average of failure scores at the end of each month between April 2011 and March 2012, where available. This replaces the use of a single failure score at the end of March and is designed to reduce the impact of short term changes.
- The average failure score (1-100) has been used to place each employer into one of ten levy bands. Each band has an associated Levy Rate. The Levy Rate not only takes account of the likelihood of insolvency of employers but also incorporates a risk margin that factors in the impact of worse than expected scenarios.

<sup>24</sup> The PPF's new levy framework is outlined within the following booklet:
 <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/new\_levy\_booklet\_121</u>
 3.pdf

## 3

### **Scheme Demographics**

### 3.1 Summary

- The proportion of open schemes has fallen by 2 percentage points to 14 per cent compared to the Purple 2011 dataset.
- The largest proportion of open schemes is found in the 10,000 and over scheme membership category.
- 28 per cent of memberships in the dataset are in open schemes.
- 8 per cent of the memberships are in the 26 per cent of schemes closed to future accrual.
- 18 per cent of memberships in the sample are active.

### 3.2 Introduction

In this chapter the composition of the dataset used for this year's Purple Book is described. Figures for the total numbers 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 were 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 2012 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 accruals, 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 are 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.

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 schemes that are closed only to new members has fallen slightly with an increase in the proportion of schemes closed to future accrual.

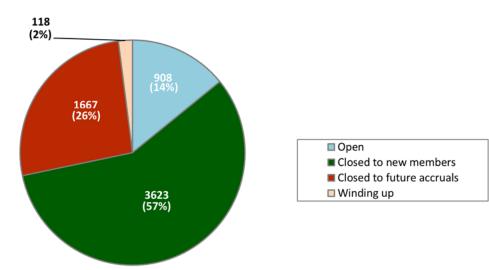


Chart 3.1 | 2012 Distribution of schemes by status

Source: PPF / The Pensions Regulator

### Table 3.1 | Distribution of schemes by status

Percentage of schemes	Extended Purple 2007	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012
Open	36%	31%	27%	18%	16%	14%
Closed to new members	45%	50%	52%	58%	58%	57%
Closed to future accruals	16%	17%	19%	21%	24%	26%
Winding up	2%	2%	2%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%

Source: PPF / The Pensions Regulator

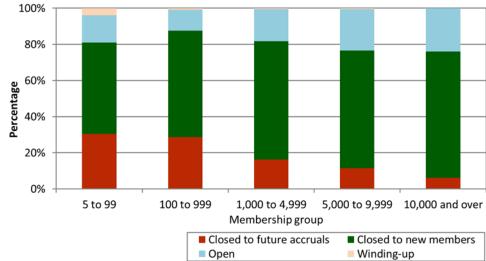
Table 3.2 | Distribution of schemes by status (excluding hybrid schemes)

Percentage of schemes	Extended Purple 2007	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012
Open	33%	26%	22%	21%	18%	17%
Closed to new members	49%	52%	55%	54%	54%	53%
Closed to future accruals	17%	19%	20%	23%	26%	29%
Winding up	1%	3%	3%	2%	2%	2%
Total	100%	100%	100%	100%	100%	100%

Source: PPF / The Pensions Regulator

Note that the status figures for an individual year may not sum to 100 per cent because of rounding.

The proportion of open schemes has fallen by 2 percentage points compared to the 2011 dataset.



The largest proportion of open schemes is found in the 10,000 and over membership size

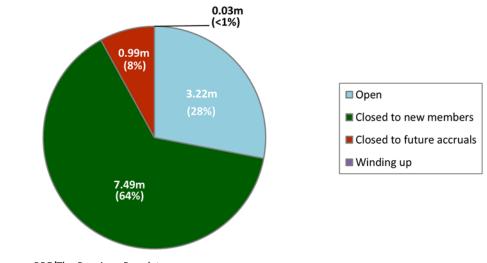
category.

\* A small number of schemes with fewer than five members are in the data set (80). These are mostly independently registered sections or schemes which appeared in previous Purple datasets.

### 3.4 Scheme status and scheme membership

Chart 3.2 | Scheme status by membership group\*

Chart 3.3 | Percentage distribution of memberships by scheme status



Source: PPF/The Pensions Regulator

28 per cent of memberships in the dataset are in open schemes.

Source: PPF/The Pensions Regulator

8 per cent of the memberships are in the 26 per cent of schemes closed to future accrual.

### Table 3.3 | Distribution of membership by status

Percentage of schemes	Extended Purple 2007	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012
Open	50%	44%	37%	34%	31%	28%
Closed to new members	46%	52%	59%	60%	62%	64%
Closed to future accruals	3%	4%	4%	5%	6%	8%
Winding up	0%	0%	0%	1%	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	Extended Purple 2007	Purple 2008	Purple 2009	Purple 2010	Purple 2011	Purple 2012
Open	55%	46%	38%	38%	34%	30%
Closed to new members	41%	49%	57%	56%	58%	61%
Closed to future accruals	3%	4%	5%	6%	8%	9%
Winding up	0%	0%	0%	1%	0%	0%
Total	100%	100%	100%	100%	100%	100%

Source: PPF/The Pensions Regulator

### 3.5 Scheme membership

Table 3.5 | Membership by membership type and status, as at 31 March 2012\*

	Open	Closed	Closed to future accrual	Winding Up	Total
Active members (millions)	0.98	1.13	n/a	n/a	2.1
Deferred members (millions)	1.2	3.45	0.6	0.01	5.27
Pensioner Members (millions)	1.04	2.92	0.39	0.01	4.36
Total	3.22	7.49	0.99	0.03	11.73

Source: PPF/The Pensions Regulator

Note that the status figures for an individual year may not sum to 100 per cent because of rounding.

\*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.

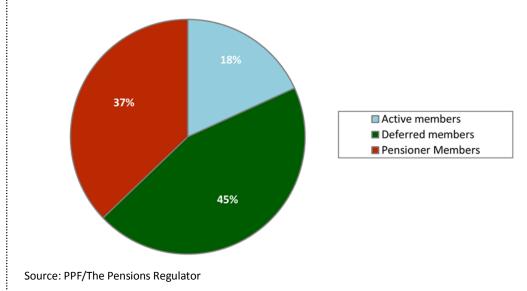


Chart 3.4 | Distribution of membership types in the Purple 2012 dataset

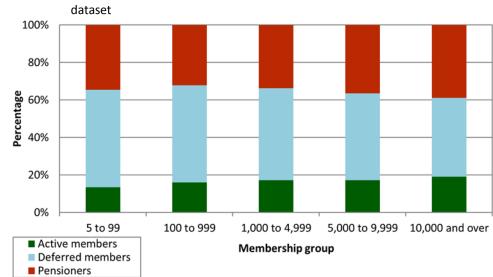
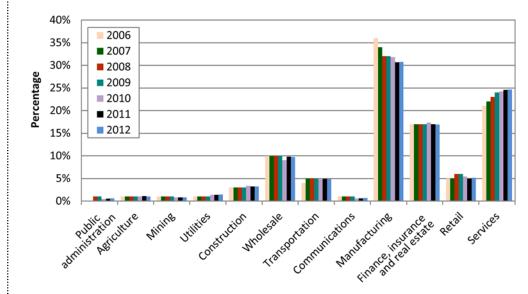


Chart 3.5 | Distribution of membership types by membership group in the Purple 2012

Source: PPF/The Pensions Regulator





Source: PPF/The Pensions Regulator

## 4

### **Scheme Funding**

### 4.1 Summary

- Dataset assets total £1,026.8 billion at 31 March 2012.
- 2012 data set s179 liabilities as at 31 March 2012 total £1,231 billion on a s179 basis and £1,702.6 billion on a full buy out basis.
- The aggregate s179 funding position of the schemes in the Purple 2012 dataset as at 31 March 2012 was a deficit of £204.2 billion. The deficit one year earlier was £1.2 billion and the s179 funding ratio fell from 100 per cent<sup>25</sup> to 83 per cent between 2011 and 2012.
- The aggregate full buy out position is a deficit of £675.8 billion. The deficit one year earlier was £467.0 billion and the estimated full buy out funding position has fallen from 67 per cent to 60 per cent.
- The full buy-out funding ratio is 60 per cent.
- The total deficit on a s179 basis, for all those schemes in deficit is £231.3 billion as at 31 March 2012. This compare with a total deficit of £78.3 billion a year earlier.
- The total deficit on an estimated full buy-out basis, for all of those schemes in deficit is £677.3 billion. This compares with a deficit of £470.7 billion a year earlier.
- 39 per cent of s179 liabilities relate to pensioner members with the remaining liabilities split evenly between active and deferred memberships.

<sup>25</sup> This is based on the latest valuation guidance as opposed to the 106 per cent reported in Chapter 5.

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section\_179\_Assumptions\_Guidance\_VA6\_Apr11.pdf

### 4.2 Introduction

This chapter primarily deals with funding on a s179 basis as at March 2012. 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 based on estimates from the scheme return data.

The processing of s179 results allows for the different assumptions<sup>26</sup> 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

	s179	Full buy- out
Total number of schemes	6,316	6,316
Total assets (£ billion)	1,026.8	1,026.8
Total liabilities (£ billion)	1,231.0	1,702.6
Aggregate funding position (£ billion)	-204.2	-675.8
Total balance for schemes in deficit (£ billion)	-231.3	-677.3
Total balance for schemes in surplus (£ billion)	27.1	1.5
Funding Level	83%	60%

#### **Table 4.1**Key funding statistics as at 31 March 2012

Source: PPF / The Pensions Regulator

<sup>26</sup> For more information on the latest valuation guidance please see here: <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Section\_179\_Assumpti</u> ons Guidance VA6 Apr11.pdf

The aggregate s179 funding position of the schemes in the Purple 2012 data set as at 31 March 2012 was a deficit of £204.2 billion. The s179 funding ratio fell from 100 per cent to 83 per cent between 2011 and 2012. This is driven by increased liabilities between 2011 and 2012.

### Table 4.2 Historical funding figures\*

			S179 liabilities						
Year	No. of schemes **	Total assets (£ billion)	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%		

		Full buy out								
Year	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%					

Source: PPF / The Pensions Regulator

\*The figures shown above are the headline figures presented in the Purple Books 2008 to 2012. 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

Membership group	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
5 to 99 members	2,260	11.6	12.6	-1.0	92%	90%
100 to 999 members	2,829	89.6	111.9	-22.3	80%	78%
1,000 to 4,999 members	823	151.9	194.0	-42.1	78%	77%
5,000 to 9,999 members	192	121.7	149.6	-27.9	81%	79%
Over 10,000 members	212	652.0	762.9	-111.0	85%	85%
Total	6,316	1,026.8	1,231.0	-204.2	83%	82%

 Table 4.3
 s179 funding levels by size of scheme membership, as at 31 March 2012

Source: PPF / The Pensions Regulator

\*Note that schemes with unusual funding arrangements were excluded from the simple averages in this table to avoid distortions. 24 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.

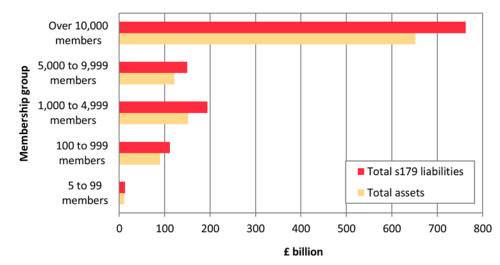
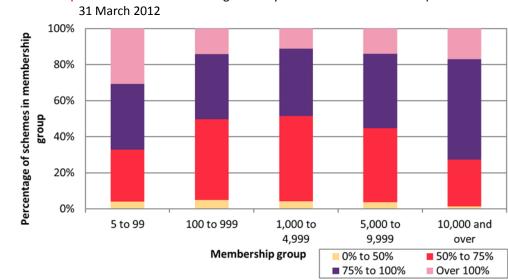


Chart 4.1 | Total assets and liabilities on a s179 basis as at 31 March 2012

Source: PPF / The Pensions Regulator



**Chart 4.2** Distribution of s179 funding levels by size of scheme membership as at 31 March 2012

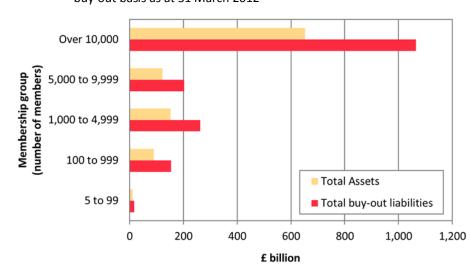
Source: PPF / The Pensions Regulator

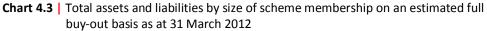
Members	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
5 to 99 members	2,260	11.6	17.6	-6.0	66%	66%
100 to 999 members	2,829	89.6	154.0	-64.4	58%	58%
1,000 to 4,999 members	823	151.9	263.1	-111.2	58%	57%
5,000 to 9,999 members	192	121.7	203.7	-82.0	60%	59%
Over 10,000 members	212	652.0	1,064.2	-412.2	61%	61%
Total	6,316	1,026.8	1,702.6	-675.8	60%	61%

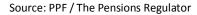
Table 4.4Estimated full buy-out levels by size of scheme membership as at<br/>31 March 2012

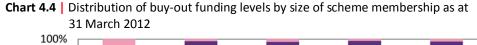
Source: PPF / The Pensions Regulator

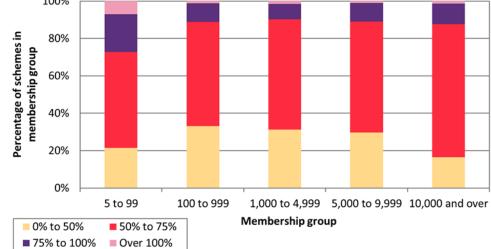
\*Note that schemes with unusual funding arrangements were excluded from the simple averages in this table to avoid distortions. 24 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.













#### 4.5 Analysis of funding by scheme maturity

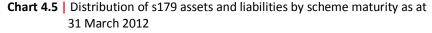
#### Table 4.5 Analysis of s179 funding levels by scheme maturity as at 31 March 2012

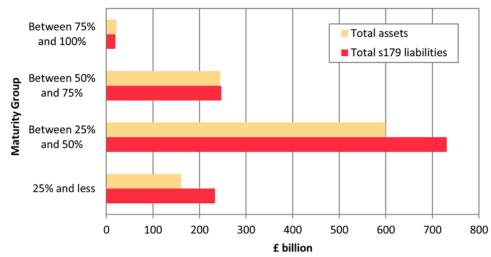
Proportion Weighted Number Market Simple of s179 average value of of Liabilities Balance average liabilities schemes assets (£ billion) (£ billion) funding funding relating to level level\* in sample (£ billion) pensioners 25% and 2,529 160.4 233.5 -73.2 69% 75% less Between 25% and 599.3 731.0 -131.7 82% 82% 2,735 50% Between 50% and 879 244.6 247.1 -2.5 99% 100% 75% Between 75% and 173 22.5 19.4 3.1 116% 120% 100% 1,026.8 -204.2 83% Total 6,316 1,231.0 82%

The funding level tends to increase with an increasing proportion of pensioner members

Source: PPF / The Pensions Regulator

\*Note that schemes with unusual funding arrangements were excluded from the simple averages in this table to avoid distortions. 24 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.





Source: PPF / The Pensions Regulator

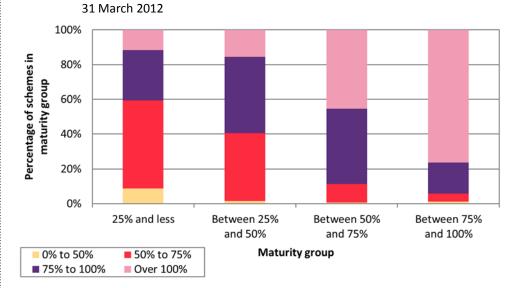


Chart 4.6 | Distribution of funding levels on a s179 basis by scheme maturity as at

The proportion of schemes with greater than 100 per cent funding on an estimated s179 basis is greater in schemes which are more mature.

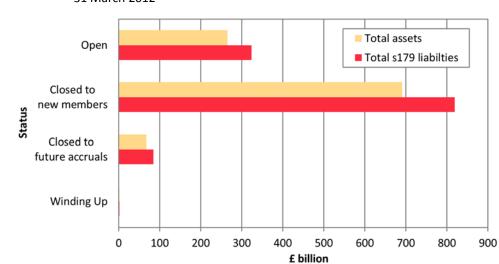


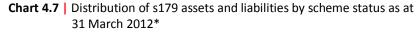
#### 4.6 Analysis of funding by scheme status



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	908	265.1	324.3	-59.2	82%	81%
Closed to new members	3,623	691.0	819.3	-128.3	84%	83%
Closed to future accruals	1667	68.2	85.1	-16.9	80%	81%
Winding Up	118	2.5	2.4	0.2	107%	104%
Total	6,316	1,026.8	1,231.0	-204.2	83%	82%

Source: PPF / The Pensions Regulator

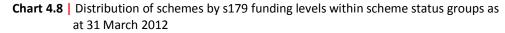


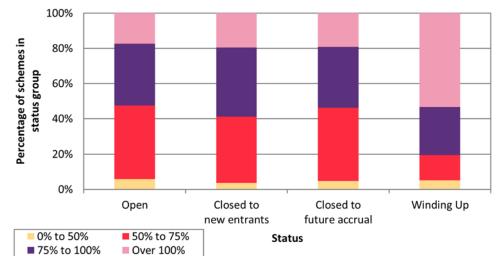


Assets and liabilities are concentrated in the 'closed to new members' status.

Source: PPF / The Pensions Regulator

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





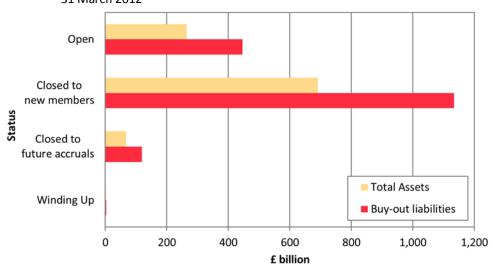
Source: PPF / The Pensions Regulator

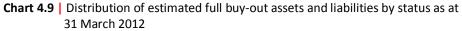
Scheme status	Number of schemes in sample	Market value of assets (£ billion)	Liabilities (£ billion)	Balance (£ billion)	Weighted average funding level	Simple average funding level*
Open	908	265.1	446.3	-181.2	59%	62%
Closed to new members	3,623	691.0	1,134.2	-443.2	61%	61%
Closed to future accruals	1,667	68.2	118.9	-50.7	57%	59%
Winding Up	118	2.5	3.3	-0.8	77%	77%
Total	6,316	1,026.8	1,702.6	-675.8	60%	61%

### Table 4.7 | Analysis of estimated full buy-out funding levels by scheme status as at<br/>31 March 2012

Source: PPF / The Pensions Regulator

\*Note that schemes with unusual funding arrangements were excluded from the simple averages in this table to avoid distortions. 24 schemes were removed on the basis that their buy-out funding level was equal to or greater than 200 per cent.





Source: PPF / The Pensions Regulator

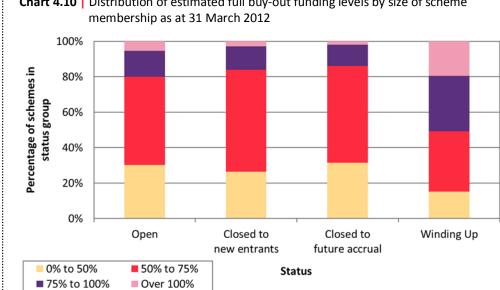
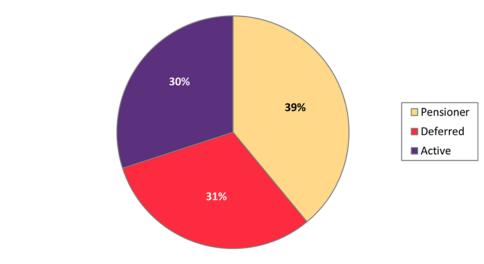
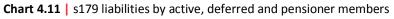


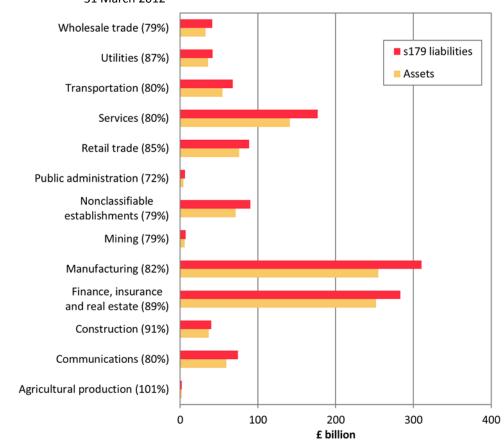
Chart 4.10 | Distribution of estimated full buy-out funding levels by size of scheme

Source: PPF / The Pensions Regulator





Source: PPF / The Pensions Regulator



### Chart 4.12 | s179 assets and liabilities by industry with overall funding level as at 31 March 2012

Source: PPF / The Pensions Regulator

44 the purple book | 12

Two sectors - Finance, insurance and real

estate, and

liabilities.

Manufacturing -

continue to hold the most assets and

## 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 2012<sup>27</sup> as the base and using the Purple 2012 dataset. The sensitivities do not take into account the use of derivative instruments to hedge changes in interest rates, inflation, equity levels or longevity.
- 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 48 percentage points. The highest funding ratio was in June 2007 at 124 per cent and the lowest ratio of 76 per cent was in May 2012.
- The aggregate balance has varied by around £478 billion (with the greatest surplus in June 2007 at £161 billion and the greatest deficit in May 2012 at £317 billion).
- The assumptions were changed on 31 March 2008, 31 October 2009 and 1 April 2011. The first two changes improved scheme funding by around £45 billion and £75 billion respectively, while the third worsened scheme funding by around £45 billion<sup>28</sup>.
- The estimated number of schemes in deficit on a s179 basis was at its lowest point in June 2007 at 1,513 schemes (24 per cent of the dataset) and peaked in May 2012 at 5,433 (85 per cent).
- Since end-March 2012, aggregate scheme funding has fallen from 83 per cent to 82 per cent in September 2012.
- A 0.1 percentage point (10 basis point) reduction in gilt yields raises aggregate scheme liabilities by 1.9 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.
- A 0.1 percentage point (10 basis point) rise in gilt yields decreases the end-March 2012 aggregate deficit by £19.4 billion from £204.2 billion to £184.8 billion while a 2.5 per cent rise in equity prices would reduce the aggregate deficit by £9.1 billion.

<sup>27</sup> 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\_Assumpti ons\_Guidance\_VA6\_Apr11.pdf

<sup>28</sup> For more information see PPF 7800 January 2009, November 2009 and May 2011

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF%207800%20Janua ry%2009.pdf

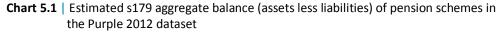
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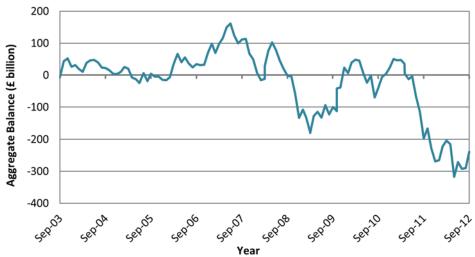
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF\_7800\_May\_11.pdf

- 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 £11 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 5.7 per cent, or £70 billion.

#### 5.2 Impact of Changes in Markets and Assumptions Since 2005

*Charts* 5.1 - 5.6 (excluding Chart 5.3), and associated bullet points, were revised on 26 November 2012 to take account of revisions to one of the asset return indices that feed into the model used to roll forward assets and liabilities.





Source: PPF / The Pensions Regulator

Market movements have resulted in a variation in the s179 aggregate balance of around £478 billion with the largest surplus of £161 billion in June 2007 and the largest deficit of £317 billion in May 2012.

Market movements have resulted in a variation in the funding ratio of around 48 percentage points with the highest ratio of 124 per cent in June 2007 and the lowest ratio of 76 per cent in

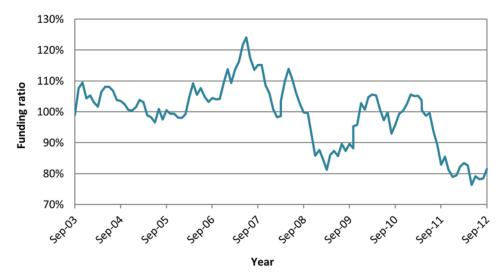
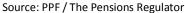
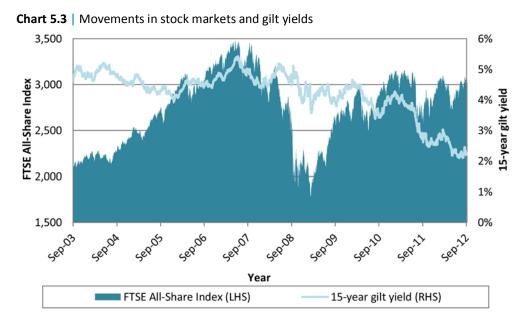


Chart 5.2 | Estimated s179 funding ratio (assets as a percentage of liabilities) of pension

schemes in the Purple 2012 dataset



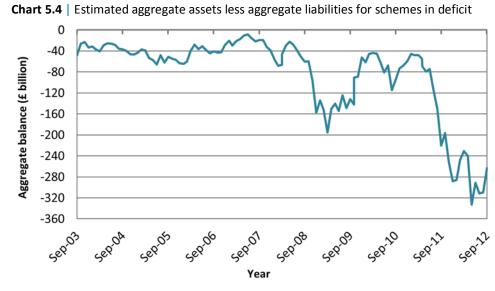




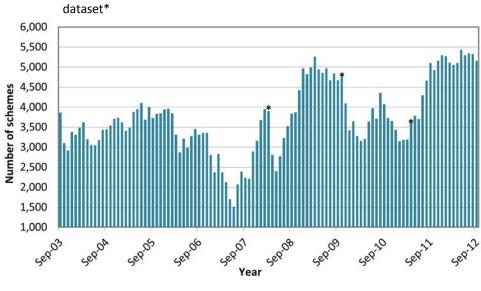
The highest funding ratio in June 2007 reflected high levels for both gilt yields and equity markets, while the lowest funding ratio in May 2012 mainly reflected low levels for 15-year gilt yields.

Source: Bloomberg

When scheme funding was at its lowest in May 2012, the aggregate deficit of the schemes in deficit was £333 billion.



Source: PPF / The Pensions Regulator



**Chart 5.5** | Estimated number of schemes in deficit each month in the Purple 2012

Source: PPF / The Pensions Regulator

\*Note: the changes to assumptions in March 2008 and October 2009 reduced the number of schemes in deficit by 479 and 539 respectively, while the changes in assumptions in April 2011 raised the number of schemes in deficit by 348.

In September 2012, there were estimated to have been around 5,157 schemes in deficit (81 per cent of the total). This is 276 schemes less than the peak in May 2012.



Chart 5.6 | Estimated movements in assets and s179 liabilities of schemes in the Purple

Total assets of schemes in deficit rose by £41 billion between March and September 2012 whilst liabilities have risen by £73 billion over the same period.

Source: PPF / The Pensions Regulator

2012 dataset

#### 5.3 Funding Sensitivities: Rules of Thumb

Table 5.1Impact of changes in gilt yields and equity prices on s179 funding levels from a<br/>base aggregate deficit of £204.2 billion, as at 31 March 2012

Assets less s179 liabilities (£ billion)											
Movement in	Movement in gilt yields										
equity prices	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp				
7.5%	-234.9	-215.6	-196.1	-176.7	-157.2	-137.6	-118.0				
5.0%	-244.2	-224.8	-205.3	-185.9	-166.4	-146.8	-127.2				
2.5%	-253.4	-234.0	-214.6	-195.1	-175.6	-156.0	-136.4				
0.0%	-262.6	-243.2	-223.8	-204.2	-184.8	-165.2	-145.6				
-2.5%	-271.8	-252.4	-233.0	-213.5	-194.0	-174.4	-154.8				
-5.0%	-281.0	-261.6	-242.2	-222.7	-203.2	-183.6	-164.1				
-7.5%	-290.2	-270.8	-251.4	-231.9	-212.4	-192.9	-173.3				

Source: PPF / The Pensions Regulator

A 0.1 percentage point (10 basis point) rise in gilt yields would have improved the end March 2012 s179 aggregate deficit by £19.4 billion from -£204.2 billion (bold) to -£184.8 billion (shaded), somewhat larger than the impact of 2.5 per cent increase in equity prices which result in a deficit of -£195.1 billion (shaded).

Assets relative to a base of 100											
Movement in			Move	ment in gilt	yields						
equity prices	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp				
7.5%	104.1	103.6	103.2	102.7	102.2	101.8	101.3				
5.0%	103.2	102.7	102.3	101.8	101.3	100.9	100.4				
2.5%	102.3	101.8	101.4	100.9	100.4	100.0	99.5				
0.0%	101.4	100.9	100.5	100.0	99.5	99.1	98.6				
-2.5%	100.5	100.0	99.6	99.1	98.6	98.2	97.7				
-5.0%	99.6	99.1	98.7	98.2	97.7	97.3	96.8				
-7.5%	98.7	98.2	97.8	97.3	96.8	96.4	95.9				

### Table 5.2Impact of changes in gilt yields and equity prices on assets from a base of 100,<br/>as at 31 March 2012

Source: PPF / The Pensions Regulator

Table 5.3Impact of changes in gilt yields on s179 liabilities from a base of 100,<br/>as at 31 March 2012

s179 liabilities relative to a base of 100											
s179 liabilities		Movement in gilts yields									
relative to March level	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp				
(=100)	105.9	103.9	101.9	100.0	98.0	96.0	94.1				

Source: PPF / The Pensions Regulator

A 2.5 per cent increase in equity prices would have raised scheme assets by 0.9 per cent, similar to 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.

Assets less s179 liabilities (£ billion)											
Movement in		Movement in gilt yields									
equity prices	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp				
7.5%	-261.5	-243.9	-226.3	-208.6	-190.9	-173.1	-155.4				
5.0%	-269.1	-251.5	-233.9	-216.2	-198.5	-180.8	-163.0				
2.5%	-276.7	-259.1	-241.5	-223.8	-206.1	-188.4	-170.6				
0.0%	-284.3	-266.7	-249.1	-231.3	-213.7	-196.0	-178.2				
-2.5%	-291.9	-274.3	-256.7	-239.0	-221.3	-203.6	-185.8				
-5.0%	-299.5	-281.9	-264.3	-246.6	-228.9	-211.2	-193.4				
-7.5%	-307.1	-289.5	-271.9	-254.2	-236.5	-218.8	-201.0				

## Table 5.4 | Impact of changes in gilt yields and equity prices on the s179 funding positionfrom a base total deficit of £231.3 billion, excluding schemes in surplus,as at 31 March 2012

Source: PPF / The Pensions Regulator

## Table 5.5Impact of changes in the rate of RPI inflation on s179 liabilities (base = £1,231<br/>billion), as at 31 March 2012

s179 liabilities (£ billion)										
	Change in no	ominal yields	Change in	real yields						
	-0.1pp 0.1pp		-0.1pp	0.1pp						
£ billions	1,245.8	1,216.3	1,241.5	1,220.6						
Percentage change	1.2%	-1.2%	0.8%	-0.8%						

Source: PPF / The Pensions Regulator

## Table 5.6 | Impact of changes in longevity assumptions on s179 liabilities (base = £1,231<br/>billion), as at 31 March 2012

	s179 liabilities (£ billion)	% Change from base
Age Rating + 2 years	1,160.3	-5.7%
Age Rating - 2 years	1,300.7	5.7%

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 £69.7 billion, or 5.7 per cent.

# 6

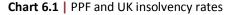
## **Insolvency Risk**

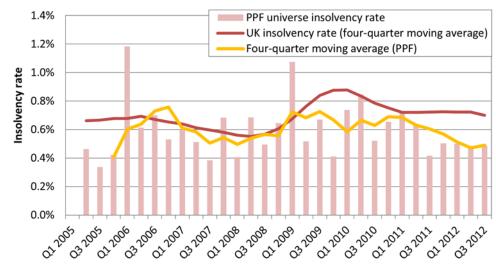
#### 6.1 Summary

- The insolvency rate of sponsoring employers of PPF-eligible Defined Benefit (DB) schemes broadly shadows the changes in the insolvency rates of all employers in the UK. However, during the 2008-09 recession the PPF's four-quarter moving average did not rise to the same extent as the UK's. Also, since the first quarter of 2011 the PPF's universe has exhibited a greater fall in insolvency rates compared to the UK average.
- Over the first eight months of 2012, 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, increasing only slightly from 0.66 per cent to 0.70 per cent.
- The UK economy came out of recession in the third quarter of 2009. GDP rose strongly until the third quarter of 2010. Since then growth has been fairly modest up until the third quarter of 2012 when zero annual growth was reported.
- The 2008/09 recession resulted in a large rise in the total level of corporate liquidations in England and Wales up from 3,241 in the first quarter of 2008 to a peak of 5,041 in the second quarter of 2009, an increase of 56 per cent. In the second quarter of 2012, a total of 4,115 liquidations were recorded. (There are around 2.9 million companies in the UK<sup>29</sup>, compared to around 18,000 in the PPF universe.)

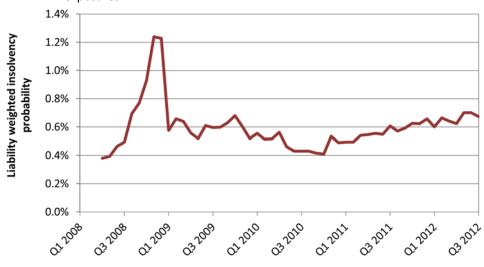
<sup>29</sup> As registered by Companies House.

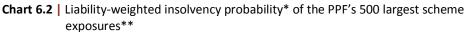
In previous years, the insolvency rate of the PPF universe broadly displayed the same pattern as the UK insolvency rate. However, since Q1 2011 the four quarter moving average for the PPF universe insolvency rate has been gradually declining.





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





The weighted insolvency probability of the PPF's 500 largest exposures increased markedly in the last recession. It reached a trough in Q4 2010. Since then it has been moving up gradually to a high of 0.7 per cent in Q3 2012.

Source: PPF / The Pensions Regulator

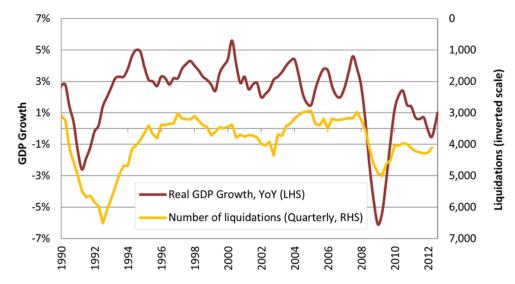
\* Where available, the insolvency probabilities have been derived from credit ratings, including market-implied ratings, supplied by Moody's and Fitch. Market-implied ratings are constructed on the basis of information from the equity, bond and credit default swap markets. For pension fund sponsors 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.

Chart 6.3 | UK corporate insolvencies and GDP growth

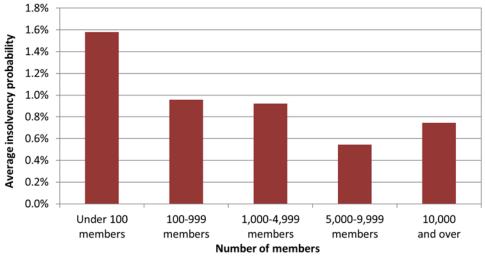
Historically, GDP has been a leading indicator of insolvencies. Recent data suggest that this relationship may have changed. During the 2008/09 recession, the peak in company liquidations occurred during the same quarter as the trough in GDP. In the early 1990s recession, liquidations peaked around two years after GDP growth hit bottom.

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



Source: Office for National Statistics and the UK Insolvency Service

Chart 6.4 Average one-year ahead insolvency probability by scheme size as measured by number of members, as at 31 March 2012



Source: PPF/The Pensions Regulator

7

## **Asset Allocation**

#### 7.1 Summary

- Purple 2012 data show a continuation of most of the trends seen in recent years: a falling equity allocation and a rising proportion in hedge funds; within equities a rising overseas share and falling UK share; and within bonds a rising corporate bond allocation and falling government allocation.
- From 2012/13, the calculation of the levy<sup>30</sup> takes into account the investment risk of the schemes. A consequence of this change is that schemes have provided more accurate asset allocations. Purple 2012 data indicates a significant drop in reported insurance policy holdings, which reflects a reclassification by several schemes of their insurance policy allocation following discussion with the PPF. This affected mainly small schemes.
- The equity allocation fell to 38.5 per cent from 41.1 per cent in 2011. The proportion of gilts and fixed interest rose to 43.2 per cent from 40.1 per cent in 2011. The proportion of hedge funds increased from 2.4 per cent to 4.5 per cent.
- The overseas proportion of total equities holdings rose from 57.2 per cent in 2011 to 60.0 per cent in 2012 with the UK proportion falling from 38.0 per cent to 33.9 per cent. The balance of holdings in unquoted equities increased from 4.8 per cent in 2011 to 6.1 per cent in 2012.
- Within total gilts and fixed interest, the corporate fixed interest securities' allocation rose from 44.3 per cent in 2011 to 44.8 per cent in 2012. Meanwhile, the proportion of government fixed interest fell from 19.6 per cent to 17.7 per cent. The balance of holdings in index-linked rose to 37.5 per cent from 36.1 per cent in 2011.
- 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<sup>31</sup>, the allocation to UK equities is still bigger (49.9 per cent) than that for overseas equities (48.5 per cent), although the gap between the two has continued to narrow.
- Considering gilts and fixed interest on a simple average basis, the allocation to government fixed interest fell from 31.2 per cent to 28.2 per cent while the allocation to corporate fixed interest securities rose from 47.1 per cent to 49.4 per cent. The average allocation to index-linked securities rose from 21.7 per cent to 22.4 per cent.

<sup>30</sup> See the 2012/13 Pension Protection Levy Consultation Document for further details: <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1213\_consultation\_docum</u> <u>ent.pdf</u>

<sup>1</sup> 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 takes into account investment risk by adjusting the scheme assets for a market stress<sup>32</sup>. 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.
- For the 2012/13 levy year, 294 schemes carried out bespoke tests. Of this 294 number, 199 schemes did so on a voluntary basis.
- On an asset-weighted basis, the aggregate effect of the stress is a 2.8 per cent reduction in asset values. (This Final bullet was updated on the 9<sup>th</sup> November 2012 based on the revisions made to chart 7.9.)

#### 7.2 Scheme return data<sup>33</sup>

Table 7.1 | Distribution of schemes by asset allocation date

Asset allocation year	Number of schemes	Percentage of Purple dataset
Before 2006	10	0.2%
2006	22	0.3%
2007	26	0.4%
2008	109	1.7%
2009	217	3.4%
2010	2096	33.2%
2011	3812	60.4%
2012	24	0.4%

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.

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

Source: PPF / The Pensions Regulator

<sup>32</sup> Further details on the stress test methodology are provided on

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1213 determination appe ndix\_investmentrisk.pdf <sup>33</sup> Asset allocations submitted by schemes are not adjusted for market movements.

94 per cent of schemes provided an asset allocation which was less than two years old.

The proportion of equities fell further in 2012 while the allocation to gilts and fixed interest increased.

The proportion of gilts and fixed interest increased in 2012. There was a significant drop in insurance policy holdings as schemes reported more accurate asset allocations.

Within gilts and fixed

corporate bonds and

proportion continues

interest, the

index-linked

to rise.

 Table 7.3
 Asset allocation: simple averages

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

Source: PPF / The Pensions Regulator

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

#### Table 7.4 | Gilt and fixed interest splits

	Gilts and fixed interest					
Year	Government fixed interest securities			xed interest rities	Index linked securities	
Teal	Average share	Weighted average share	Average share	Weighted average share	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%

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

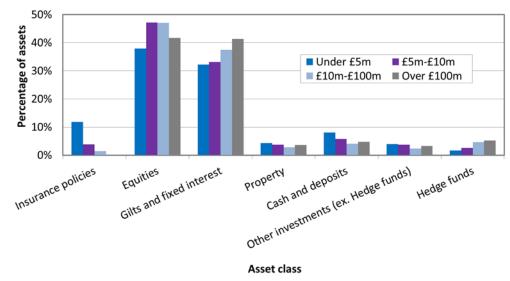
#### Table 7.5 | Equity splits

	Equities						
Year	UK equities		Overseas	s equities	Unquoted equities		
	Average share	Weighted average share	Average share	Weighted average share	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%	

Source: PPF / The Pensions Regulator

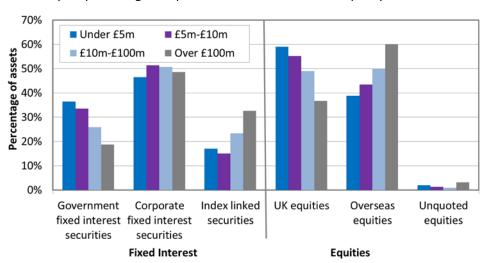
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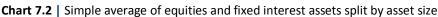
Within equities the overseas and unquoted equity proportion continues to rise. The proportion of assets held in gilts and fixed interest increases with scheme size. The proportion held in insurance policies decreases with scheme size.





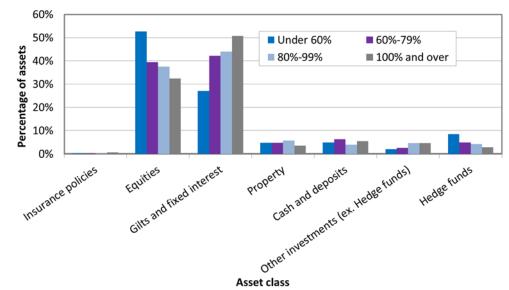
Source: PPF / The Pensions Regulator

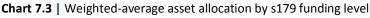




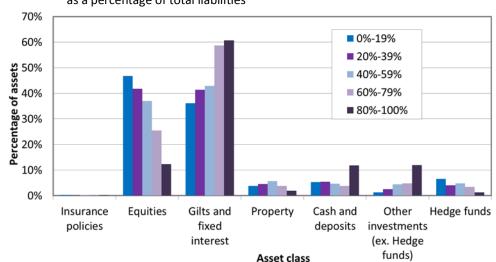
Source: PPF / The Pensions Regulator

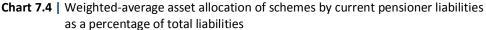
Within total gilts and fixed interest, the average allocation to government fixed interest securities declines with scheme size while within equities the allocation to overseas equities increases with scheme size. The best funded schemes tend to have the greatest proportion of their assets invested in gilts and fixed interest, and a smaller proportion invested in equities.





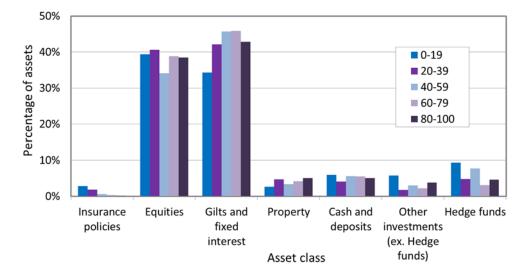
Source: PPF / The Pensions Regulator





Source: PPF / The Pensions Regulator

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 7.5** | Weighted-average asset allocation of schemes by Dun & Bradstreet (D&B) failure score

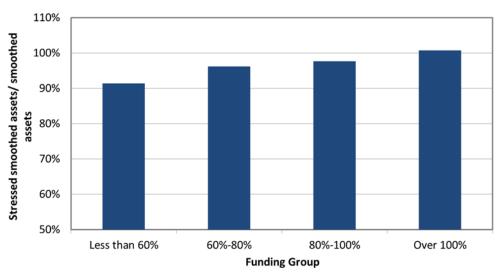
There appears to be no relationship between asset allocation and D&B failure score where the higher the score the lower the predicted probability of insolvency.

Source: PPF / The Pensions Regulator

#### 7.3 Investment risk-ratio of stressed assets to assets<sup>34</sup>

Charts 7.6 to 7.9 were revised on the 9<sup>th</sup> November 2012 to show the ratio of "stressed smoothed assets" to "smoothed assets" rather than "stressed smoothed assets" to "stressed point-estimate assets (as at 31 March 2012)".

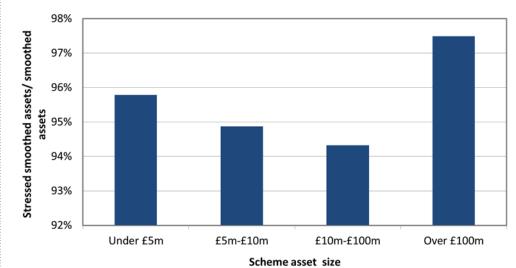
Chart 7.6 | Investment risk by s179 funding level

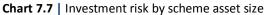


Source: PPF / The Pensions Regulator

<sup>34</sup> Further details on the stress test methodology are provided on <u>http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/1213\_determination\_appe\_ndix\_investmentrisk.pdf</u> or please refer to Chapter 8.

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





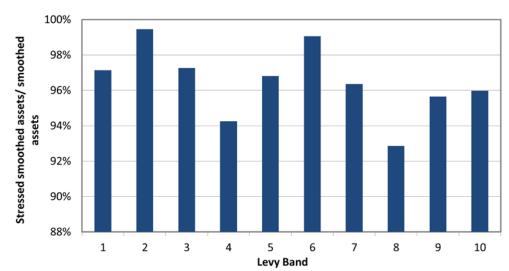


Chart 7.8 | Investment risk by levy band<sup>35</sup>

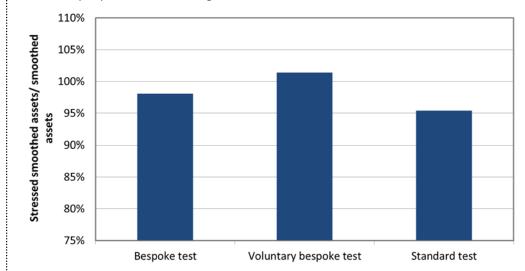
Source: PPF / The Pensions Regulator

<sup>35</sup> For full details of the levy bands, please visit <u>http://www.pensionprotectionfund.org.uk/levy/Pages/1213\_Levy\_Determination.aspx</u> See Chapter 8 for distribution of schemes by levy band.

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

Source: PPF / The Pensions Regulator

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



#### Chart 7.9 | Impact of stress testing on investment risk

Source: PPF / The Pensions Regulator

Based on 129 schemes who performed compulsory bespoke tests, 165 voluntary tests and 6,022 schemes who followed the standard test methodology for their 2012/13 levy calculation.

# 8

## **Risk Developments**

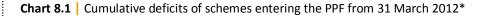
#### 8.1 Summary

- The Long-Term Risk Model (LTRM) is the key tool that the Board of the Pension Protection Fund (PPF) uses to understand and quantify the risks it faces over the long term. It helps the Board of the PPF assess the level of resources required to meet potential future claims.
- There was a clear increase in long-term risk to the Fund between end-March 2011 and end-March 2012, which was largely attributable to a worsening of pension scheme funding 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 2012, suggest that the PPF has an 84 per cent probability of meeting this objective compared with 87 per cent one year earlier<sup>36</sup>.
- Looking at shorter-term risk measures, the total weighted deficit (scheme sponsor one-year-ahead insolvency probability multiplied by scheme deficit) for deficit schemes stood at £1.8 billion at end-March 2012, up from £0.3 billion at end-March 2011.
- Schemes with sponsors in the manufacturing sector have the largest weighted deficit at around 44 per cent of the total.

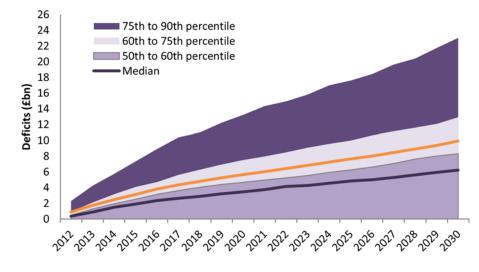
http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF\_Funding\_Strategy\_Document.pdf

<sup>&</sup>lt;sup>36</sup> This probability is sensitive to a range of modelling assumptions. For a description of the modelling methodology and assumptions employed, see

#### 8.2 Long-Term Risk



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



Source: PPF / The Pensions Regulator

\*As projected in the LTRM model.

	Present value of total claims over five years ( ${\tt f}$ billion)					
March LTRM run	Median	Mean	75 <sup>th</sup> percentile	90 <sup>th</sup> percentile	95 <sup>th</sup> percentile	
2012	2.3	3.8	4.7	8.9	12.4	
2011	0.6	1.2	1.4	2.9	4.4	
2010	1.2	2.5	3.0	6.3	9.4	
2009	2.1	3.5	4.5	8.4	11.9	



Source: PPF / The Pensions Regulator

The LTRM projection of expected (mean) claims on the PPF over five years has risen from £1.2 billion at March 2011 to £3.8 billion at March 2012. This reflects a sharp fall in scheme funding over the year as bond yields fell to record-low levels.

#### 8.3 The PPF's Long-Term Funding Strategy<sup>37</sup>

- The PPF published its long-term funding strategy in August 2010 and its most recent annual update was in October 2012. 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 requires that the PPF be 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 selfsufficiency. As at 31 March 2012, this probability was 84 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<sup>37</sup>. As at 31 March 2012, 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.

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/PPF\_Funding\_Strat egy\_Document.pdf

For the October 2012 review of the funding strategy, see:

http://www.pensionprotectionfund.org.uk/DocumentLibrary/Documents/Funding\_Strategy\_R eview\_2012.pdf

<sup>&</sup>lt;sup>37</sup> For a full explanation of the PPF long-term funding strategy, including modelling methodology and assumptions, see

The base-case probability of the PPF meeting its funding objective is 84 per cent, down from 87 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 8.2Modelled probability of the PPF meeting its funding objective, as at<br/>31 March 2012

Scenario	Probability of meeting funding objective	Downside risk (£ billion)
Base case	84%	10
Length of scheme recovery plans increases by 3 years	83%	11
25 basis point reduction in annual asset returns (except cash and government bonds)	82%	11
Levy reduced by 10 per cent	82%	11
Initial PPF funding reduced by 10 percentage points	79%	12
Sponsor insolvency probabilities increased by 2 per cent	83%	11
Scheme Technical Provisions reduced by 10 per cent (relative to S179 basis)	79%	15
No funding margin for longevity and credit risk (i.e. target 100 per cent rather than 110 per	0.2%	10
cent)	92%	10

Source: PPF / The Pensions Regulator

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

In the analysis below:

Weighted deficit<sup>38</sup> for scheme A = deficit in scheme A (in £s) x one-year-ahead insolvency probability<sup>39</sup> of sponsoring company

with each measured as at 31 March 2012.

#### Table 8.3 Underfunding groups, as at 31 March 2012

Underfunding group	Ratio of s179 assets to liabilities	Percentage of total number of schemes in deficit
1	75% to 100%	39.4%
2	50% to 75%	53.8%
3	Less than 50%	6.8%

Source: PPF / The Pensions Regulator

<sup>38</sup> The weighted deficit does not take into account potential s75 recoveries or parent guarantees.

<sup>39</sup> 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.

To aid analysis, schemes have been grouped by underfunding groups and PPF levy bands.

Levy Band	Levy Rate	Percentage of total number of schemes
1	0.0018	44.0%
2	0.0028	10.9%
3	0.0044	15.5%
4	0.0069	8.9%
5	0.0110	7.3%
6	0.0160	4.8%
7	0.0201	1.8%
8	0.0260	1.0%
9	0.0306	0.4%
10	0.0400	5.5%

#### Table 8.4 Levy bands<sup>40</sup>, as at 31 March 2012

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

Source: PPF / The Pensions Regulator

Table 8.5Weighted deficit by levy band and underfunding group for<br/>schemes in deficit, as at 31 March 2012

Weighted deficit (£ million)	Unde	Total		
Levy Band	1	2	3	
1	57	61	17	135
2	3	10	2	15
3	66	194	16	276
4	7	18	2	26
5	6	22	5	32
6	65	140	8	212
7	2	9	2	13
8	1	8	1	10
9	1	2	0	3
10	269	716	54	1,039
Total	476	1,180	106	1,762

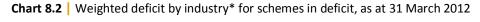
Source: PPF / The Pensions Regulator

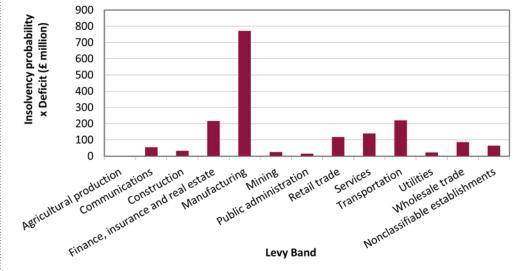
<sup>40</sup> For full details of the levy bands, please visit <u>http://www.pensionprotectionfund.org.uk/levy/Pages/1213 Levy Determination.aspx</u>

The total weighted deficit for schemes in deficit at end-March 2012 was around £1.8 billion up from £300 million at end-March 2011. sponsors in the manufacturing sector have the largest weighted deficit at £0.8 billion, around 44 per cent of the total. Manufacturing is the largest sector in the PPF universe. However its average deficit per scheme is only the fourth highest in the universe.

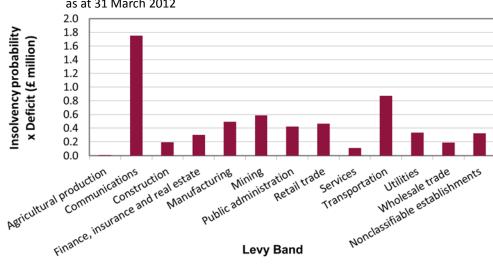
Schemes with

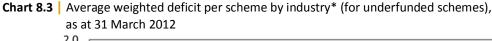
The communications sector has the highest average weighted deficit by scheme. This is mainly due to the inclusion of one large scheme. However, the total deficit of the communications sector is low compared to other sectors.

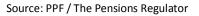




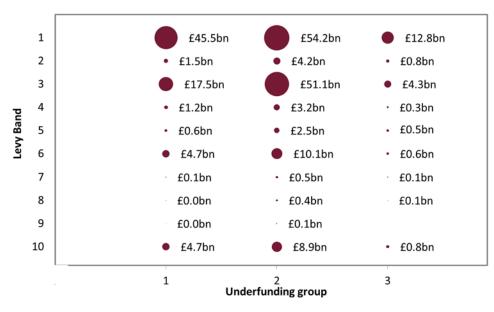
Source: PPF / The Pensions Regulator \*Based on US 1972 Standard Industrial Classification.







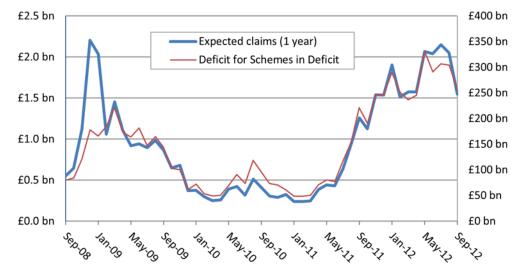
\*Based on US 1972 Standard Industrial Classification.



## Chart 8.4 Liabilities of schemes in deficit by levy band and underfunding group, as at 31 March 2012

Schemes in Underfunding group 2 (75 per cent to 50 per cent funded) account for 58.5 per cent of the liabilities for deficit schemes.





#### Chart 8.5 | 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.

Expected claims for the 500 largest schemes have increased significantly since January 2011. This reflects deteriorating funding levels rather than an increase in insolvency risk.

# 9

## Levy Payments 2011/12

#### 9.1 Summary

- For six 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 £3.3 billion. For the 2011/12 levy year, the PPF expected to collect £596 million from 6,439 schemes, down from £663 million in 2010/11.
- The dataset used in this chapter is based on 6,167 schemes who have paid £580 million in total. This is somewhat smaller than the £596 million expected to be collected.
- For 2011/12, total levies amounted to 0.08 per cent of total s179 assets, a slight decrease on the 0.09 per cent in the previous year. The number of schemes paying no risk-based levy in 2011/12 was 296, up from 195 in the previous year.
- In 2011/12, the number of schemes paying no risk-based levy represented 5 per cent of total schemes and 3 per cent of total liabilities, compared to 3 and 1 per cent respectively for 2010/11.
- In 2011/12, 626 schemes had their risk-based levy capped at 0.75 per cent of liabilities. This is 10.2 per cent of the total number of schemes. The liabilities of capped schemes equalled £15 billion or 1.6 per cent of total liabilities.
- The top 100 levy payers accounted for £227 million or 39.1 per cent of the total levy, but 45.8 per cent of liabilities.
- The distribution of levy by industry was broadly similar in 2011/12 to that in 2010/11. Manufacturing, Services, and Finance, insurance and real estate services accounted for approximately 72 per cent of the eligible DB universe, but also paid a similar proportion of the total PPF levy. The Manufacturing industry represents the largest portion of the Defined Benefit (DB) universe and thus pays the largest proportion of the total levy.
- For full details of the 2011/12 levy determination, please visit: <u>http://www.pensionprotectionfund.org.uk/levy/1112\_determination/Pages/11-12Determination.aspx</u>

Table 9.1	Levy Payments
TUDIC J.I	Levyrayments

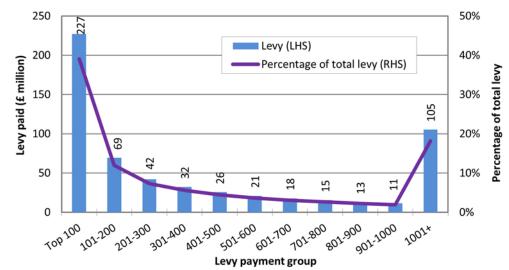
	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11	2011/ 12
Actual levy payments (£ m)	271	585	651	592	663	596
Estimated collection (£ m)**	575	675	675	700	720	600
Percentage of scheme assets <sup>41</sup>	0.03%	0.07%	0.08%	0.07%	0.09%	0.08%
Number of capped schemes	310	411	564	340	679	626

Source: PPF / The Pensions Regulator

<sup>\*</sup> Information in this table is calculated from the dataset of 6,167 for 2011/12 or from prior year's Purple Books where relevant.

<sup>\*\*</sup> The estimated collection represents the original expectation of levy to be collected as opposed to expectations formed during the collection process.





The top 100 levy payers accounted for £227 million or 39.1 per cent of the total levy, but 45.8 per cent of total liabilities.

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

<sup>41</sup> Total assets of schemes paying a levy.

Source: PPF/The Pensions Regulator

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%

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

Around five per cent of schemes paid no risk-based levy, up from three per cent in 2011/12.

Source: PPF / The Pensions Regulator

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

Levy band <sup>42</sup>	Total number of schemes	Number of capped schemes <sup>43</sup>	Percentage of capped schemes in levy band
1	3,311	3	0.5%
2	703	0	0.0%
3	721	0	0.0%
4	475	49	7.8%
5	422	194	31.0%
6	191	118	18.8%
7	86	69	11.0%
8	84	64	10.2%
9	149	116	18.5%
10	21	13	2.1%

In 2011/12, 626 schemes had their risk-based levy capped, with 312 of those schemes in the levy bands 5 and 6.

Source: PPF / The Pensions Regulator

It should be noted that the levy bands become operational in 2012-13. However to ensure consistency with the other chapters within the Purple Book we have used 2012-13 levy band methodology.

<sup>42</sup> For full details of the levy bands, please visit <u>http://www.pensionprotectionfund.org.uk/levy/Pages/1213\_Levy\_Determination.aspx</u>

<sup>43</sup> For the definition of capped schemes, please visit

http://www.pensionprotectionfund.org.uk/levy/1112\_determination/Pages/11-12Determination.aspx.

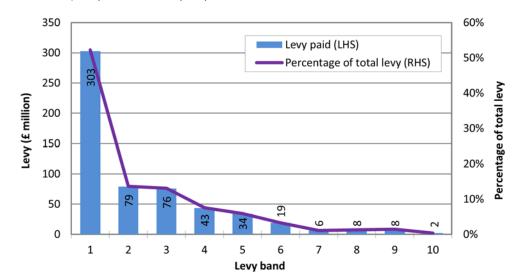
Funding level	Number of capped schemes	Percentage of capped schemes in funding band
Less than 50%	104	16.6%
50%-75%	340	54.3%
75%-100%	158	25.2%
100%-125%	18	2.9%
Greater than 125%	6	1.0%

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

In 2011/12, 70.9 per cent of the schemes that had their riskbased levy capped were below 75 per cent funded, broadly unchanged from 2010/11.

Source: PPF / The Pensions Regulator

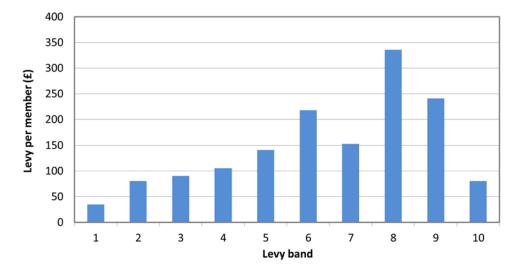
#### **Chart 9.2** | Levy distribution by levy band<sup>44</sup>

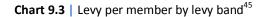


Levy band 1 made the largest contribution to total levy receipts, paying £303m or 52.3 per cent of total levy collected.

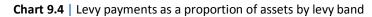
Source: PPF/The Pensions Regulator

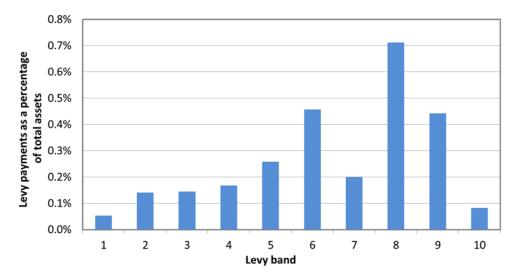
<sup>44</sup> For the definition of scheme and risk based levy, please visit:
 <u>http://www.pensionprotectionfund.org.uk/levy/1112\_determination/Pages/11-12Determination.aspx</u>.





Levy per member is the highest in the levy bands 8 and 9 and generally lower in the low levy bands.



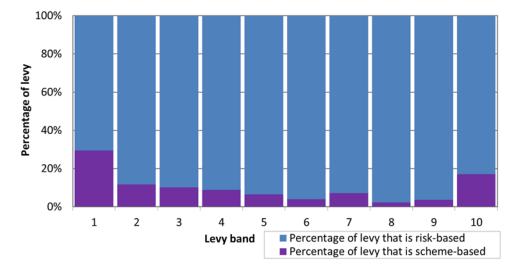


The PPF levy is very small compared with the value of total s179 assets. The average over the sample was 0.08 per cent in 2011/2012.

 <sup>45</sup> For the definition of scheme and risk based levy, please visit: <u>http://www.pensionprotectionfund.org.uk/levy/1112\_determination/Pages/11-12Determination.aspx</u>.

Source: PPF/The Pensions Regulator

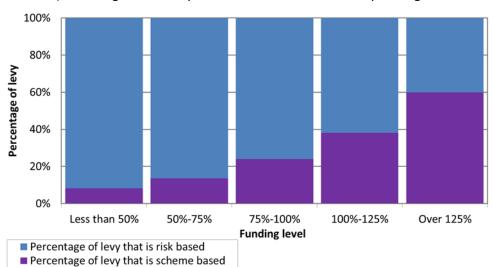
Source: PPF/The Pensions Regulator



#### Chart 9.5 | Percentage of total levy that is scheme- and risk-based<sup>46</sup> by levy band

With the exception of levy band 10, the share of risk-based levy tends to rise and the share of schemebased levy to fall, as the levy band increases.

Source: PPF/The Pensions Regulator



#### Chart 9.6 | Percentage of total levy that is scheme- and risk-based by funding level

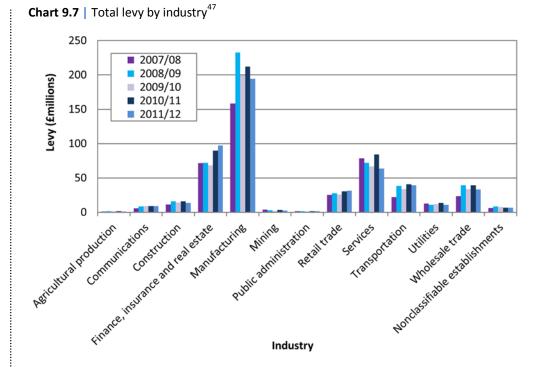
risk-based levy declines as scheme funding improves.

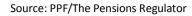
The proportion of

Source: PPF/The Pensions Regulator

<sup>46</sup> For the definition of scheme and risk based levy, please visit:
 <u>http://www.pensionprotectionfund.org.uk/levy/1112\_determination/Pages/11-12Determination.aspx</u>.

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





<sup>47</sup> These figures are based on a sample of 5,794 schemes across all years. Industry data is based on the 1972 US Standard Industrial Classification.

# 10

## Schemes in Assessment

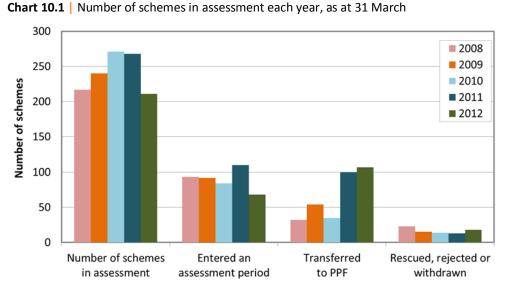
#### 10.1 Summary

- Before transferring into the PPF, all schemes go through an assessment period to determine their ability to pay PPF levels of compensation<sup>48</sup>. The PPF aims to complete the assessment period for most schemes within two years.
- The PPF's Annual Report and Accounts 2011/12 show that there were 300 schemes in assessment at the 31 March 2012 compared with 369 at 31 March 2011. Of the 300 figure, 251 were recognised in provisions on the PPF balance sheet, down from 314 at 31 March 2011. 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 211 schemes (with 125,000 members) in a PPF assessment period as at 31 March 2012, compared with 268 schemes (with 225,000 members) a year earlier. As a result, the number of schemes in assessment in this chapter is less than reported in the 2011/12 Annual Report and Accounts.
- The fall over the year reflects 68 new schemes entering and remaining in assessment, 107 schemes transferring into the PPF and 18 being rescued, rejected or withdrawn.
- On a s179 basis, as at 31 March 2012, the aggregate assets of schemes in assessment totalled £6.5 billion and their liabilities £7.9 billion. Liabilities averaged £37.4 million per scheme and assets averaged £30.6 million.
- Schemes with liabilities below £5 million account for 36.0 per cent of schemes in assessment but only 2.1 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 54.6 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 2012 was 82.0 per cent, below the aggregate funding levels of the schemes in the Purple 2012 dataset (83.4 per cent) and also slightly below the aggregate funding level of the schemes in assessment a year earlier (86.8 per cent).
- According to the latest scheme-return data prior to their entering assessment, schemes invested most heavily in equities (42.0 per cent of total assets) and gilts and fixed interest (28.0 per cent). In the Purple 2012 dataset equities account for 43.7 per cent and gilts and fixed interest account for 36.1 per cent. The balance was held in insurance policies, cash, property and other investments.
- Where the industry is known, 41.3 per cent of the companies sponsoring schemes in assessment operated within the Manufacturing sector. The Finance, insurance and real estate sector accounts for 15.9 per cent of sponsors of schemes in assessment and the Services sector, 15.4 per cent.

<sup>48</sup> See Chapter 3, Scheme Demographics for description of the eligibility test.

- The representation of manufacturing in schemes in assessment is much greater than the sector's share of scheme sponsors in the PPF universe (29.5 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 800 claims on the PPF with a total value of £4.5 billion. Schemes with under 100 members accounted for 48.6 per cent of the claims since 2005. The Manufacturing sector contributed to 44.2 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 (14.3 per cent) was much lower than its share of scheme sponsors in the PPF universe (23.7 per cent).

#### 10.2 Schemes entering assessment



The number of schemes in assessment has declined in the latest year because fewer schemes entered assessment and more left assessment.

Source: PPF / The Pensions Regulator

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

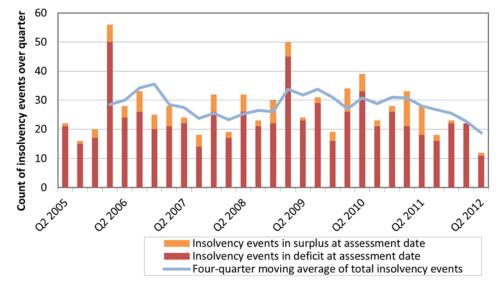
Year	Assets (£billion)	Liabilities (£billion)	Surplus (£billion)	Funding ratio
2007	4.0	4.7	-0.7	85.1%
2008	4.2	5.4	-1.2	77.8%
2009	6.6	9.4	-2.8	70.2%
2010	8.4	9.5	-1.1	88.4%
2011	9.5	10.9	-1.4	86.8%
2012	6.5	7.9	-1.4	82.0%

scheme funding for schemes in assessment had deteriorated to 82.0 per cent compared to 86.8 per cent the year before.

At 31 March 2012,

Source: PPF / The Pensions Regulator

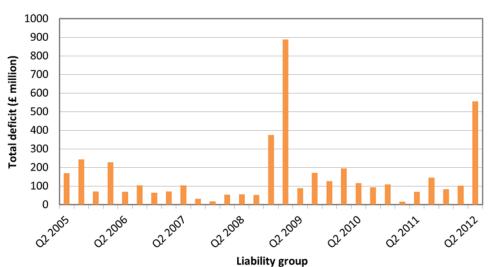
The number of qualifying insolvency events has been trending down over the past 15 months.



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

Source: PPF / The Pensions Regulator

\*Sections and segregated schemes not amalgamated.

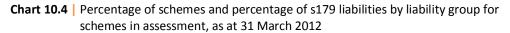




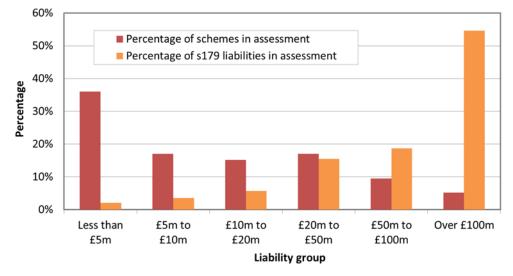
Source: PPF / The Pensions Regulator

The average quarterly deficit of schemes entering assessment in the year to Q2 2012 was £221 million, up from £72 million in the year to Q2 2011, reflecting a sharp increase in the value of claims in Q2 2012 to £556 million.

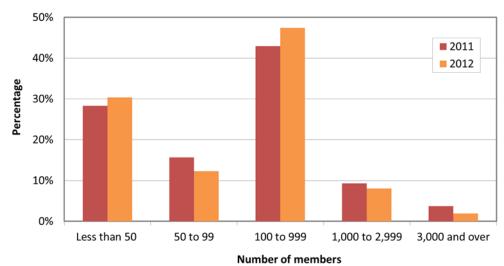
#### 10.3 Scheme demographics

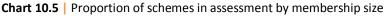


Schemes with liabilities of more than £100 million represent 5.2 per cent of schemes in assessment but 54.6 per cent of liabilities.



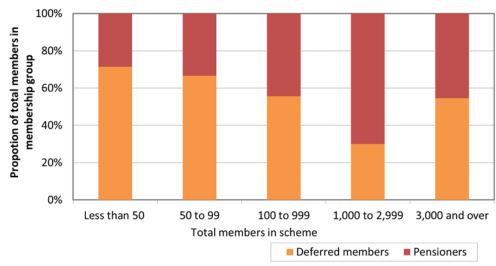
Source: PPF / The Pensions Regulator





Source: PPF / The Pensions Regulator

In 2012, 47 per cent of the schemes in assessment were in the 100-999 membership range. 42 per cent had fewer than 100 members.



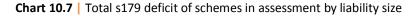
#### Chart 10.6 | Maturity of schemes in assessment by membership size\*

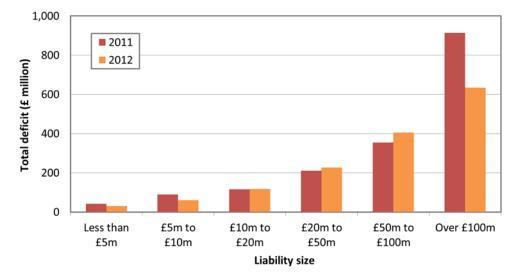
Schemes in assessment in the 1,000 to 2,999 membership range are the most mature schemes.

Source: PPF / The Pensions Regulator

\*Only pensioners and deferred members are considered.

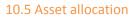
#### 10.4 Funding level

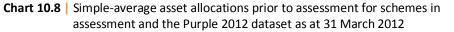


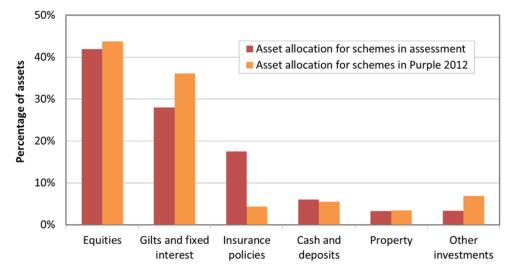


Source: PPF / The Pensions Regulator

2012 saw a large decrease in the deficit of the largest schemes. This is mainly due to the exit of nine schemes with liabilities of over £100 million while one scheme in this liability group entered assessment. Prior to assessment, schemes tended to hold less of their assets in equities, 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.



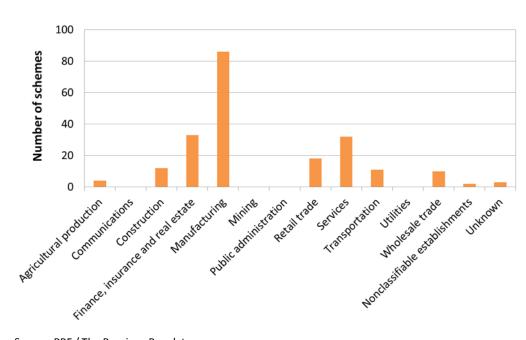




Source: PPF / The Pensions Regulator

#### 10.6 Industry classification

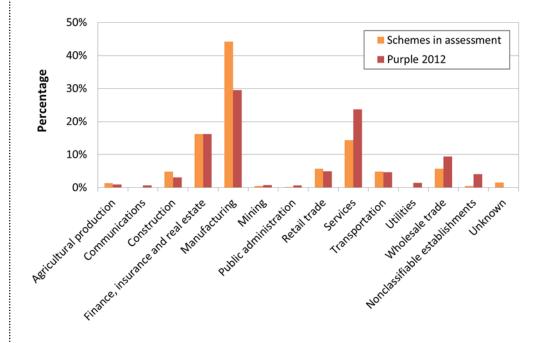




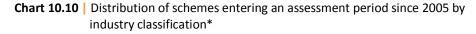
Source: PPF / The Pensions Regulator

Manufacturing made up 86 of the 211 schemes in assessment (40.8 per cent).

<sup>\*</sup>Based on US 1972 Standard Industrial Classification.



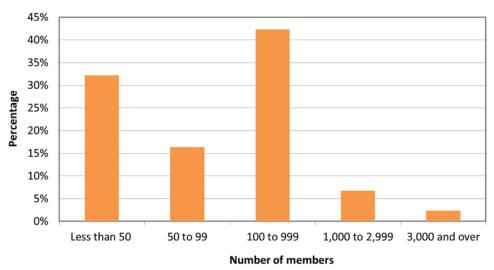
#### 10.7 Total claims since 2005<sup>49</sup>



Manufacturing contributed 44.2 per cent of the schemes entering assessment since 2005. This is much higher than its proportion in the DB universe.

> 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

<sup>49</sup> Sections and segregated schemes not amalgamated.

42.3 per cent of the claims since 2005 came from schemes in the 100-999 membership range. Schemes under 100 members accounted for 48.6 per cent of the claims since 2005.

## **PPF Compensation**

#### 11.1 Summarv

- 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<sup>50</sup>.
- In 2011/12, the PPF made compensation payments of £203.3 million compared to £119.5 million in 2010/11.
- At 31 March 2012, 57,506 members were in receipt of PPF compensation, up from 33,069 in the previous year. Average compensation in payment stood at  $\pm 4,024^{51}$  a year. The number of members with compensation not yet in payment (deferred members) as at 31 March 2012 totalled 70,608. For these members, the average accrued periodic compensation (before any prospective application of the compensation cap at NRA) was £3,289 a year.
- As at 31 March 2012, males constituted 66 per cent of pensioner and deferred members.<sup>52</sup>
- Spouses and dependants account for 15 per cent of those currently in receipt of compensation. They receive 9 per cent of the total compensation in payment.
- Around 57 per cent of compensation is attributable to former employees of the manufacturing sector, down from 68 per cent the year before.
- The West-Midlands region has the largest receipt of compensation, currently at 17 per cent of total pensioner compensation.
- As at 31 March 2012, only 221 pensioners were affected by the compensation cap<sup>50</sup>.
- 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.

<sup>50</sup> For full details of the conditions and processes governing the payment of PPF compensation, please visit http://www.pensionprotectionfund.org.uk/Pages/Compensation.aspx

<sup>51</sup> 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 2012.

<sup>52</sup> 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

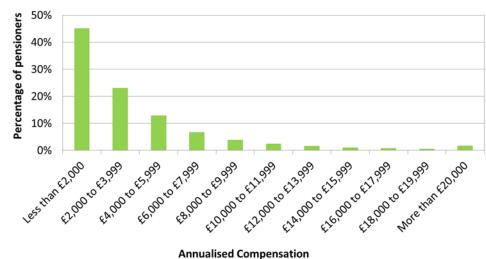
	Year					
	2007	2008	2009	2010	2011	2012
Total compensation (£ million, year to 31 March)	1.4	17.3	37.6	81.6	119.5	203.3
Total pensioner members (31 March)	1,457	3,596	12,723	20,775	33,069	57,506
Total deferred members (31 March)	5,621	8,577	18,009	26,058	42,063	70,608

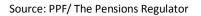
#### Table 11.1 Total compensation and number of members

Source: PPF / The Pensions Regulator

#### 11.3 Distribution of Compensation







Total compensation has increased significantly over the year from £119.5 million to £203.3 million.

81 per cent of pensioner members are in receipt of annualised compensation of less than £6,000. 85 per cent of deferred members have accrued annualised compensation of less than £6,000.

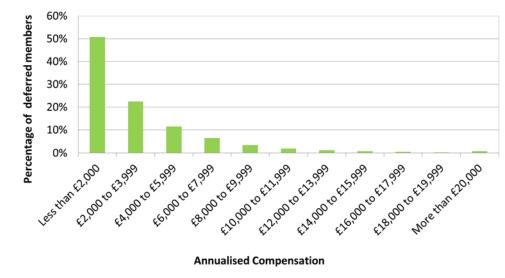
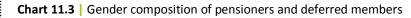


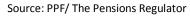
Chart 11.2 | Distribution of deferred members by annualised compensation level

Source: PPF/ The Pensions Regulator

#### 11.4 Gender

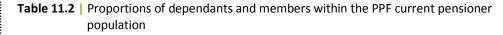


Pensioners Deferred members Overall



Overall, males make up 66 per cent of members of transferred schemes (down from 72 per cent last year).

#### 11.5 Spouses and other dependants



Percentage of total population

15%

85%

21,759

209,663

231,422

Percentage of

9%

91%

100%

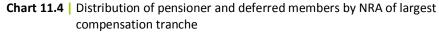
Dependants constitute only a small proportion of total pensioners and compensation.

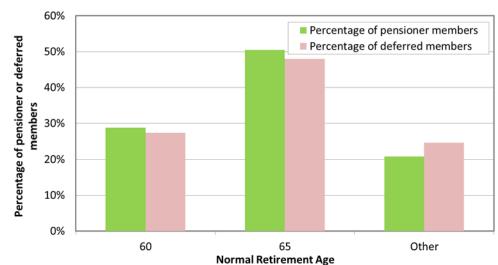
Total	57,506	100%	
Source: PPF/ 1	The Pensions Regulato	or	

8,380

49,126

#### 11.6 Normal Retirement Age (NRA)



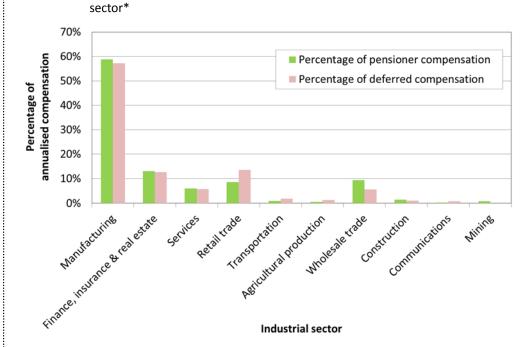


Around half of pensioner and deferred members have an NRA of 65 for their largest tranche of compensation.



#### 11.7 Industry

The proportion of compensation directed to former employees of the manufacturing industry has fallen to 57 per cent from 68 per cent the previous year.

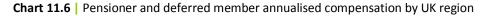


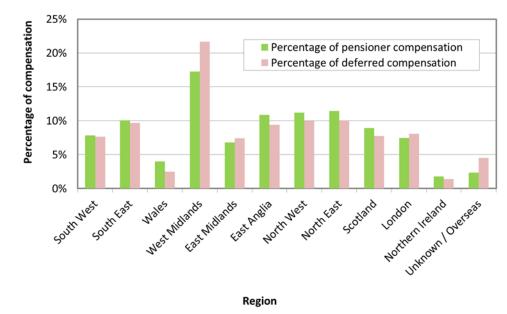
**Chart 11.5** Pensioner and deferred member annualised compensation by industrial

Source: PPF / The Pensions Regulator

\*Based on US 1972 Standard Industrial Classification.

#### 11.8 Geography

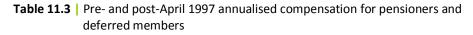




Source: PPF / The Pensions Regulator

The West Midlands clearly dominates as a destination for PPF compensation, due to the number of relevant sponsor insolvencies in the region.

#### 11.9 Period of service



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

	Pensi	oners	Deferred		
	Compensation (£000, pa)	Percentage of total	Accrued Compensation (£000, pa)	Percentage of total	
Pre-April 1997	180,573	78%	117,324	51%	
Post-April 1997	50,850	22%	114,893	49%	
Total	231,423	100%	232,216	100%	

Source: PPF / The Pensions Regulator

## Table 11.4 Value of liabilities<sup>53</sup> attributable to pre and post April 1997 compensation for pensioners and deferred members

	Pensi	oners	Deferred		
	Liabilities (£000)	Percentage of total	Liabilities (£000)	Percentage of total	
Pre-April 97	2,640,129	70%	1,891,219	44%	
Post-April 97	1,148,380	30%	2,366,974	56%	
Total	3,788,509	100%	4,260,381	100%	

Source: PPF / The Pensions Regulator

<sup>53</sup> On the basis used for the PPF's Annual Report and Accounts 2011/12.

## **12** Risk Reduction

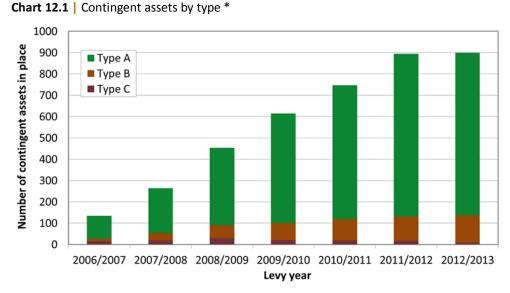
#### 12.1 Summary

- The total number of recognised Contingent Assets (CAs) in place for the 2012/13 levy year was around 900, virtually unchanged from the previous year. Firmer standards of validation introduced by the PPF have limited the increase in the number of recognised CAs.
- Schemes in the Purple 2012 dataset<sup>54</sup> had by 10 April 2012 certified approximately £36.3 billion of Deficit Reduction Contributions (DRCs)<sup>55</sup> to reduce deficits for the 2012/13 levy year. This was higher than the £28.0 billion certified for the previous levy year.
- The DRCs were not only paid by companies sponsoring the largest schemes; around 44.1 per cent of the £36.3 billion was paid by employers sponsoring schemes with fewer than 10,000 members (97 per cent of the 2012 dataset).
- Data from the Office for National Statistics (ONS) covering 350 large pension schemes, including 100 local authorities, show that employers made £16.0 billion in special contributions in 2011 (i.e. those in excess of regular annual contributions), the same as in 2010. In the first quarter of 2012 they were running at an annual rate of £18.8 billion.
- Analysis of the Pension Regulator's latest technical provisions and recovery plan data shows that in Tranche 5<sup>56</sup>, the average recovery plan length shortened to 8.1 years, the average funding ratio as measured by assets divided by technical provisions increased to 78.8 per cent, and technical provisions as a percentage of s179 liabilities rose to 112.5 per cent.
- Quarterly F&C Asset Management surveys of volumes traded by investment banks suggest that:
  - £53.3 billion of liabilities were hedged using interest rate derivatives in the year to the second quarter of 2012, up 21 per cent from 2011.
  - £58.4 billion of liabilities were hedged using inflation derivatives in the year to the first quarter of 2012. Inflation hedging activity totalled £18.5 billion in the second quarter of 2012, exceeding 2009 record levels.
- Total risk transfer business covering buy-outs, buy-ins and longevity hedges amounted to around £40 billion between the end of 2006 and the first quarter of 2012. Most of the total reflected longevity hedges, 23 per cent reflected buy-ins and 21 per cent buy-outs. £7 billion of longevity hedges were put in place in the second half of 2011, up from £3 billion traded in 2010.

<sup>54</sup> Excluding those schemes which were in a PPF assessment period as at 31 March 2012.

<sup>55</sup> The certificates cover deficit reduction contributions made since the last scheme valuation.

<sup>56</sup> Tranche 5 covers schemes with valuation dates between 22 September 2009 and 21 September 2010.



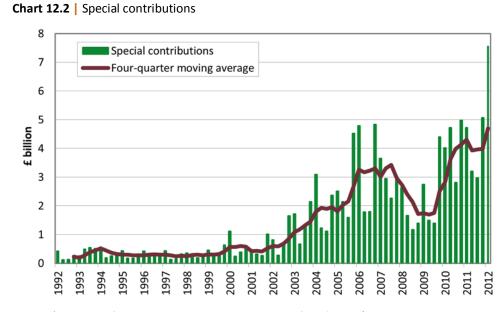
#### 12.2 Contingent assets

The total number of recognised contingent assets remained around 900 for the 2012/13 levy year. However, the value of the contingent assets was lower than in 2011/12.

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. This is likely to mainly affect the latest year. The figures for 2010/11 reported in Purple 2011 showed the total number of contingent assets in place as 722 whereas the last estimate is 747. However, there was only a minor change for 2009/10 and 2011/12.

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.



#### 12.3 Special contributions

Special contributions made in 2011 were at the same level as in 2010. However, they have increased significantly in the first quarter of 2012 relative to previous levels.

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

#### 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%

Source: PPF / The Pensions Regulator

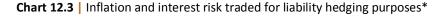
\*Notes: (1) valuation dates run from 22 September to 21 September (2) the Tranche 5 number of plans includes 1355 schemes from Tranche 2.

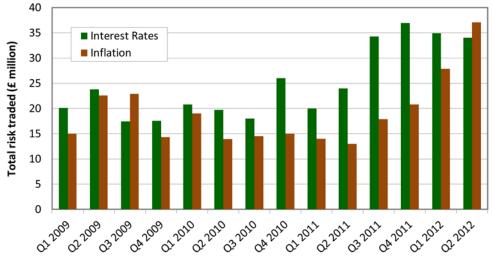
The ratio of technical provisions to s179 liabilities is affected by changes in the nominal and real gilt yields.

In Tranche 5, recovery plan lengths decreased while the ratio of technical provisions to s179 liabilities rose.

#### 12.5 Liability Driven Investment

The average quarterly interest rate and inflation risk traded by investment banks over the latest year was £35.0 million and £25.9 million respectively. Inflation hedging activity has increased significantly since Q2 2011.





Source: F&C Asset Management

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

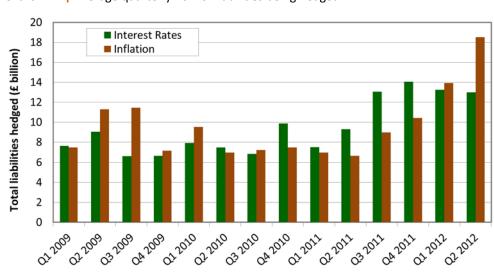


Chart 12.4 | Average quarterly flow of liabilities being hedged\*

Source: F&C Asset Management

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

The average quarterly flow of liabilities being hedged against interest and inflation movements were £13.3 billion and £12.9 billion respectively over the year to Q2 2012. The flow of inflation and interest rate hedging business has increased markedly since Q2 2011.

#### 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).

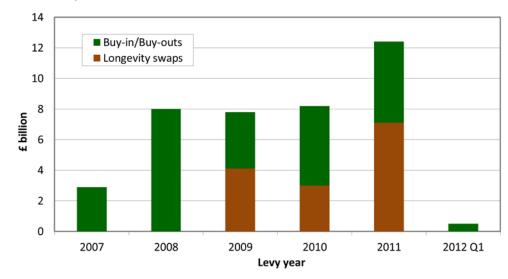
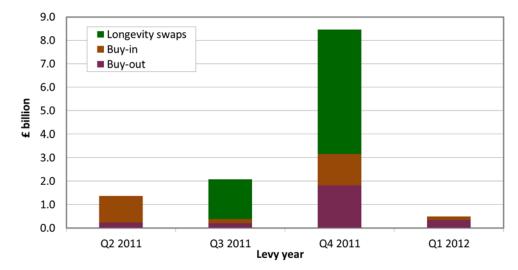


Chart 12.5 Value of risk transfer deals since 2007

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

Over the year to Q1 2012, the total value of transfer deals was £12.4 billion of which 56 per cent were longevity swaps, 23 per cent were buyins and 21 per cent buy-outs.

The level of quarterly transactions tends to be volatile.



#### Chart 12.6 | Value of risk transfer deals in the year to Q1 2012

The value of risk transfer deals since 2007 has totalled just under £40 billion.

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

## Chapter 3 appendix

The first table in this appendix was amended on the 13 February 2013 to reflect data used in the charts and tables for Chapter 3. Previously, the values in this table did not account for adjustments made due to hybrid scheme statuses. The amendments to this table do not affect the results in Chapter 3.

Schemes by size band

		Status				
Membership group	Open	Closed	Paid Up	Winding up	All	
5 to 99 members	343	1,143	687	87	2,260	
100 to 999 members	325	1,667	812	25	2,829	
1,000 to 4,999 members	145	540	133	-	-	
5,000 to 9,999 members	44	125	22	-	-	
Over 10,000 members	51	148	13	_	-	
Total	908	3,623	1,667	-	_	

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

Members by size band

		Sta	tus		
Membership group	Open	Closed	Paid Up	Winding-up	All
5 to 99 members	12,020	51,590	33,079	2,600	99,289
100 to 999 members	114,989	617,912	252,791	8,169	993,861
1,000 to 4,999 members	354,128	1,194,531	288,686	8,933	1,846,278
5,000 to 9,999 members	336,129	880,376	145,526	6,768	1,368,799
Over 10,000 members	2,407,154	4,749,230	268,149	-	7,424,533
Total	3,224,420	7,493,639	988,231	26,470	11,732,760

Meml	bership	by mem	ber type

Membership group	Active members	Deferred members	Pensioner members	AII
5 to 99 members	13,409	51,607	34,273	99,289
100 to 999 members	159,071	515,208	319,582	993,861
1,000 to 4,999 members	316,118	908,642	621,518	1,846,278
5,000 to 9,999 members	236,405	633,002	499,392	1,368,799
Over 10,000 members	1,409,971	3,129,669	2,884,893	7,424,533
Total	2,134,974	5,238,128	4,359,658	11,732,760

Industry	Total number of schemes	Total % of schemes	Total DB members	Total % of memberships	s179 liability (£ bn)	Total % s179 liability
Agricultural production	62	0.4	39,182	1	2	0.2
Communications	43	4.2	458,745	0.7	74	6.5
Construction	195	3.4	378,262	3.2	40	3.5
Finance, insurance and real estate	1,024	23.4	2,575,512	16.9	283	24.8
Manufacturing	1,864	28.2	3,105,024	30.8	310	27.2
Mining	51	0.4	46,375	0.8	7	0.6
Nonclassifiable establishments	255	6.1	717,719	4	90	7.3
Public administration	39	0.6	71,547	0.6	6	0.5
Retail trade	312	11.8	1,295,399	5.1	89	7.8
Services	1,494	15.1	1,659,560	24.6	177	15.5
Transportation	296	5.8	637,270	4.9	68	5.9
Utilities	88	2.7	297,444	1.5	42	3.7
Wholesale trade	593	4.1	450,721	9.8	41	3.6

#### Schemes, membership, and s179 liability by industry

.

## Chapter 4 appendix

#### Scheme size

			M	Membership group		
		5 to 99	100 to 999	1,000 to 4,999	5,000 to 9,999	10,000 and over
	Assets	11.6	89.6	151.9	121.7	652.0
£ bn	s179 liabilities	12.6	111.9	194.0	149.6	762.9
	Buy-out liabilities	17.6	154.0	263.1	203.7	1,064.2
	0% to 50%	89	139	35	-	-
Schemes by s179	50% to 75%	654	1,268	389	79	55
funding group	75% to 100%	824	1020	307	79	118
	Over 100%	693	402	92	27	36
Schemes by buy- out funding groups	0% to 50%	484	936	257	57	35
	50% to 75%	1,161	1,579	486	114	151
	75% to 100%	455	282	68	19	23
	Over 100%	160	32	12	-	-

#### 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	160.4	599.3	244.6	22.5	
	s179 liabilities	233.5	731.0	247.1	19.4	
	0% to 50%	221	44	-	-	
Schemes by s179	50% to 75%	1,280	1,064	93	8	
funding group	75% to 100%	733	1,203	381	31	
	Over 100%	295	424	399	132	

Sc	heme	status
20	neme	Juuus

		Scheme status				
		Open	Closed to new entrants	Closed to future accrual	Winding-up	
£bn	Assets	265.1	691.0	68.2	2.5	
	s179 liability	324.3	819.3	85.1	2.4	
	Buy-out liability	446.3	1,134.2	118.9	3.3	
Schemes by s179 funding groups	0% to 50%	54	133	80	6	
	50% to 75%	377	1,361	690	17	
	75% to 100%	320	1,419	577	32	
	Over 100%	157	710	320	63	
Schemes by buy- out funding group	0% to 50%	274	953	524	18	
	50% to 75%	451	2,089	911	40	
	75% to 100%	133	477	200	37	
	Over 100%	50	104	32	23	

.....

	Schemes by status			£ bn		
	Open	Closed	Paid Up	Winding- up	Assets	s179 Liability
Agricultural production	-	36	21	-	2.4	2.4
Communications	-	32	6	-	59.6	74.4
Construction	30	110	52	-	36.7	40.2
Finance, insurance and real estate	114	616	275	19	251.9	283.4
Manufacturing	206	1,056	579	23	254.7	310.5
Mining	14	29	7	-	5.8	7.4
Public administration	15	22	-	-	4.5	6.2
Retail trade	34	176	88	14	75.9	88.8
Services	307	800	352	35	141.0	176.8
Transportation	62	179	53	-	54.4	67.8
Utilities	17	60	7	-	36.1	41.7
Wholesale trade	50	366	167	10	32.7	41.2

Industry

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.

## How to contact us:

### Pension Protection Fund

### The Pensions Regulator

**Pension Protection Fund** 

Knollys House 17 Addiscombe Road Croydon Surrey CR0 6SR

#### www.pensionprotectionfund.org.uk

 Phone:
 0845 600 2541

 Textphone:
 0845 600 2542

 Fax:
 020 8633 903

 Email:
 purplebook@ppf.gsi.gov.uk

Trafalgar Place Brighton

The Pensions Regulator

Napier House

BN14DW

www.the pensionsregulator.gov.uk www.trusteetoolkit.com

#### Customer Support

 Phone:
 0870 606 3636

 Textphone:
 0870 243 3123

 Fax:
 0870 241 1144

 Email:
 purplebook@thepensionsregulator.gov.uk