

## PPF7800 Index

*End-April 2008*

This update provides the latest estimated funding position, on a s179 basis, of almost 7,800 predominantly private sector defined benefit (DB) pension schemes in the UK. The s179 basis is, broadly speaking, what would have to be paid to an insurance company to take on the payment of Pension Protection Fund levels of compensation.

The updates from end-March 2008 are based on a more up to date data set than that used in the earlier updates, and use new actuarial assumptions for s179 valuations. The impact of these changes is to improve funding by about £80bn compared with estimates based on the earlier data set and actuarial assumptions.

The estimates are, as before, based on scheme valuation data, which has been adjusted to consistent dates on an approximate basis, using changes in market indices for principal asset classes, and the fixed interest and index-linked gilt yields used to value liabilities.

### Highlights

- The aggregate funding position (total assets minus total liabilities) of almost 7,800 DB funds is estimated to have improved to a surplus of £30.3 billion at end-April 2008, from a deficit of £23.6 billion at end-March 2008 (Chart 1 and Table 1). The April outturn is the first surplus in 4 months. Scheme funding is worse than it was a year previously (surplus of £88.3 billion in April 2007).
- The total deficit of schemes in deficit in April 2008 is estimated to have improved to £55.5 billion from £81.3 billion at the end of March 2008 (Chart 3). In April 2007, the aggregate deficit of all schemes in deficit stood at £32.8 billion.
- In April 2008, the total surpluses of schemes in surplus increased to £85.9 billion from £57.7 billion at the end of March 2008 (Chart 6). In April 2007, the aggregate surplus of all schemes in surplus stood at £121.1 billion.

### The Detail

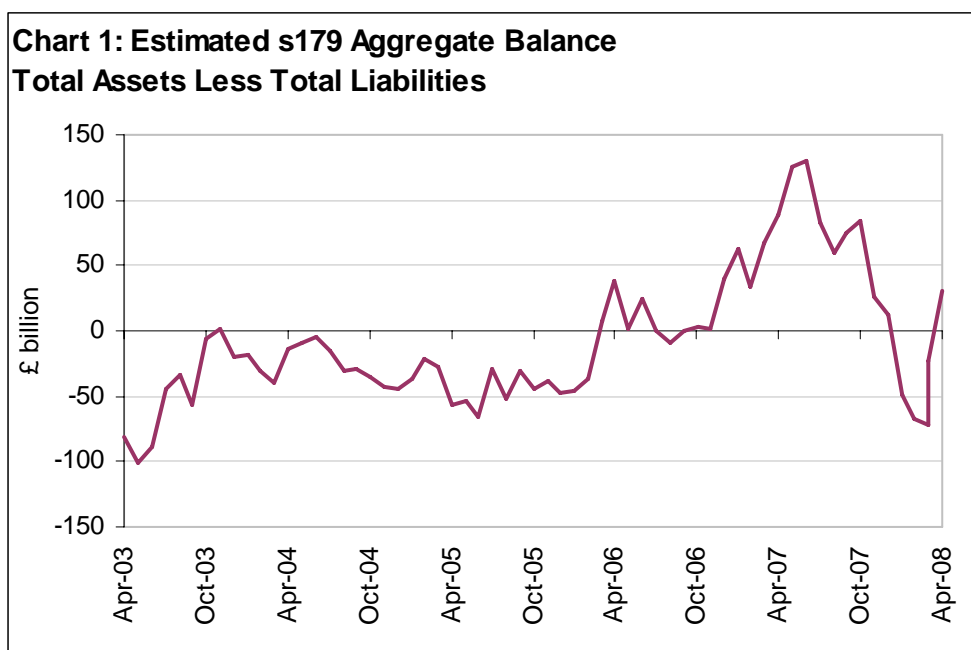
- The number of schemes in deficit in April 2008 stood at 5,271, down from 5,862 schemes in March 2008, and representing 68 per cent of total DB schemes in the sample (Chart 5). This is the lowest proportion since October 2007.
- The number of schemes in surplus was higher in April 2008, compared to the previous month at 2,473 which accounts for 32 per cent of the schemes. 3,225 schemes were in surplus in April 2007.

- Across the sample of schemes, total scheme assets amounted to £851.3 billion in April 2008 (Chart 2), representing an increase of 3.4 per cent over the month and an increase of 2.8 per cent over the three months to April 2008. Assets are down 0.1 per cent over the year.
- Meanwhile, scheme liabilities are up by 7.5 per cent over the year to April 2008, to £821.0 billion (Chart 2). However, liabilities are down by 3.0 per cent over the last month.

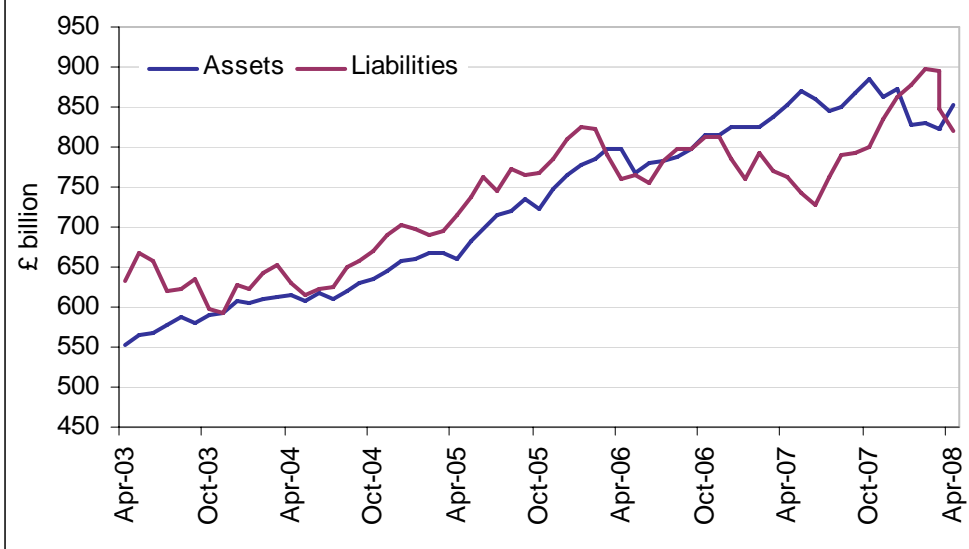
## Context

- During the month of April 2008 there was a 3.9 per cent increase in assets due to improving equity markets. However, higher gilt yields led to a fall in liabilities of approximately 3.4 per cent. The FTSE All Share Index increased by 3.2 per cent over April 2008, while 10-year gilt yields increased by 26 basis points over the month (Chart 8) to a yield of 4.8 per cent on the last trading day of April 2008.
- Over the year to April 2008, the FTSE All Share Index fell by 7.6 per cent and 10-year gilt yields are down by 35 basis points (Chart 7).
- Over the past year, the negative impact of equities on scheme assets combined with falling bond yields have led to an overall worsening of the funding position, with lower bond yields resulting in a 8.2% increase in aggregate liabilities (see note 5), while weaker equities have reduced assets by 2.0%.

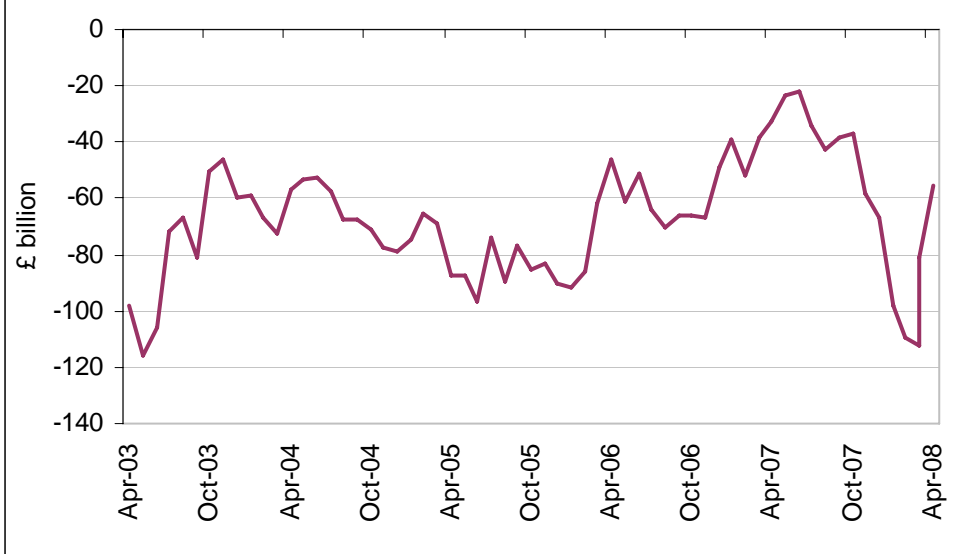
## Key Charts

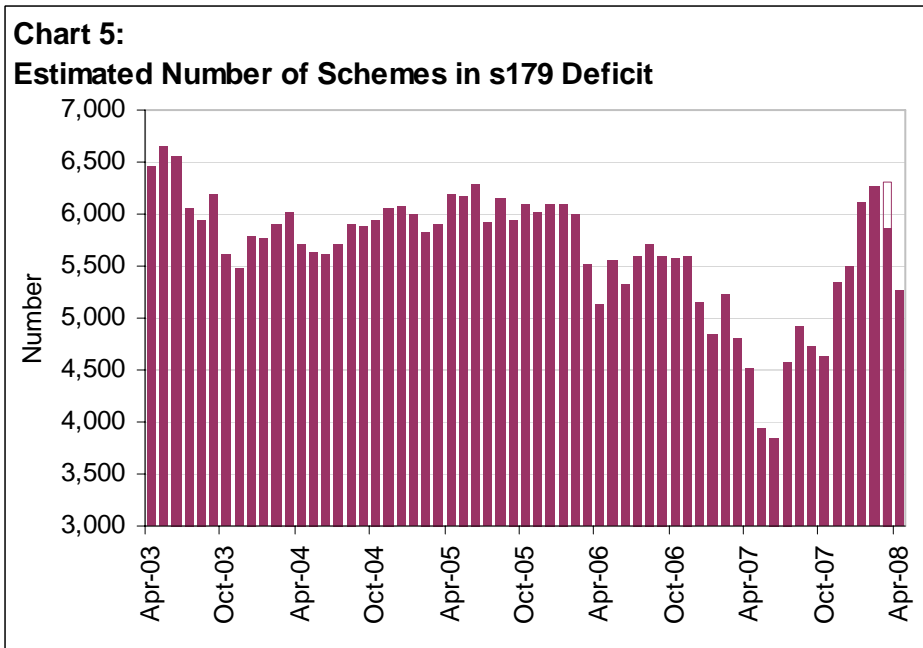
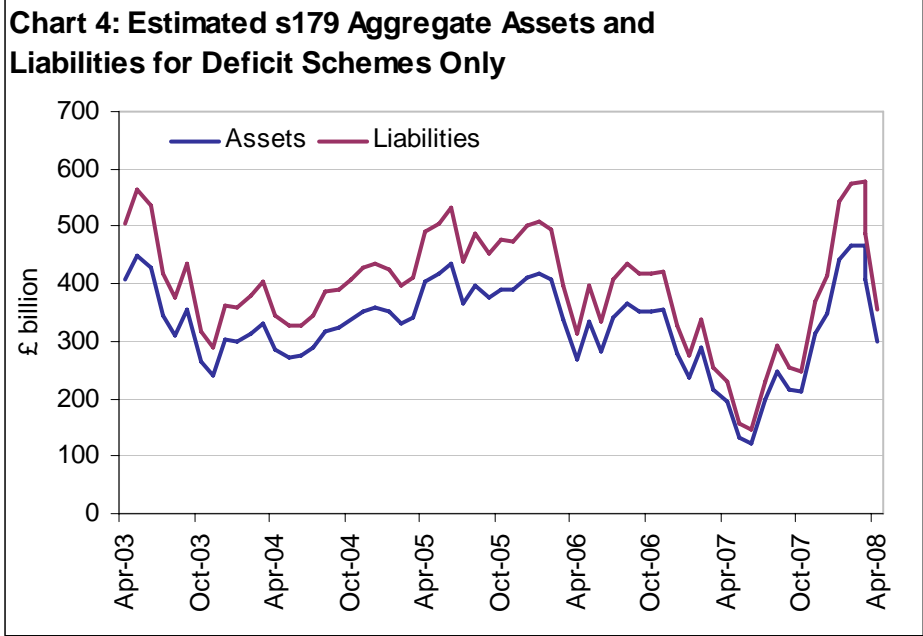


**Chart 2:  
Estimated s179 Aggregate Assets and Liabilities**

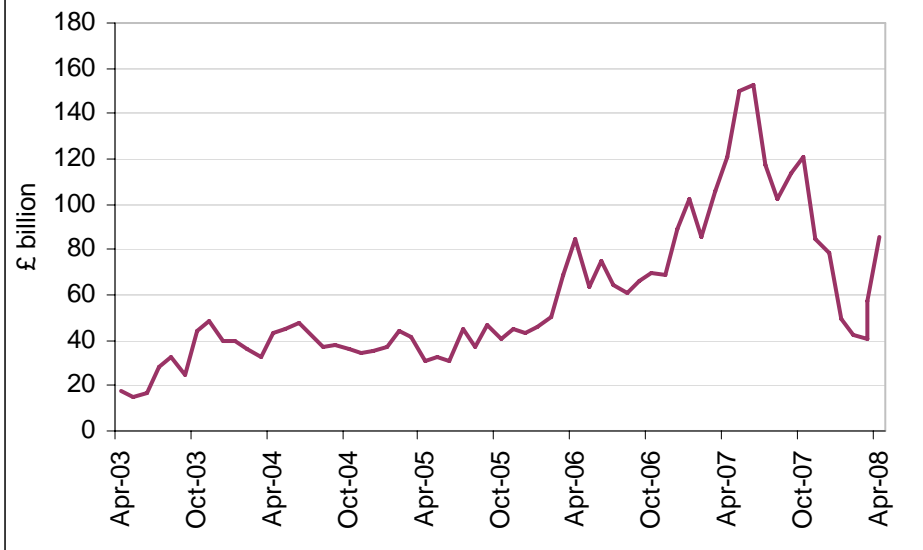


**Chart 3:  
Estimated s179 Deficits for Deficit Schemes Only**

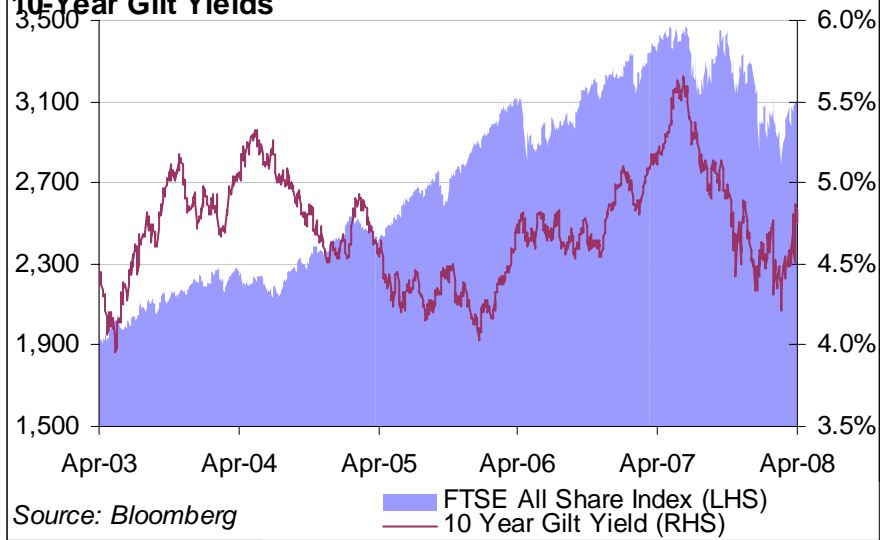


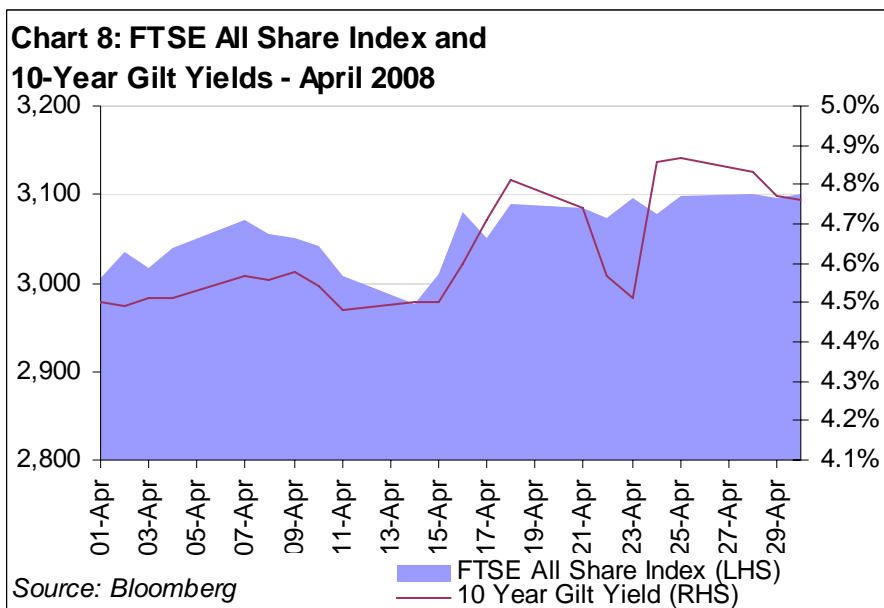


**Chart 6:**  
**Estimated s179 Surplus for Surplus Schemes Only**



**Chart 7: FTSE All Share Index and 10-Year Gilt Yields**





**Table 1: Funding comparisons**

	End Apr-08 <sup>1</sup>	End Mar-08 <sup>1</sup>	End Apr-07	End Mar-07 <sup>2</sup>
<b>Deficit of schemes in deficit</b>	£55.5bn	£81.3bn	£32.8bn	£38.5bn
<b>Number of schemes in deficit</b>	5,271	5,862	4,519	4,815
<b>Surplus of schemes in surplus</b>	£85.9bn	£57.7bn	£121.1bn	£106.3bn
<b>Number of schemes in surplus</b>	2,473	1,882	3,225	2,929
<b>Aggregate balance</b>	£30.3bn	-£23.6bn	£88.3bn	£67.8bn

## Notes

<sup>1</sup> These figures are based on the new actuarial assumptions, that took effect on 31 March 2008

<sup>2</sup> Valuation date used for the Purple Book 2007

1. The Charts demonstrate the volatility of pension fund deficits over the last five years resulting from movements in financial markets. To determine the aggregate levy schemes pay, the Pension Protection Fund uses a long term risk model (LTRM). This ensures that the Pension Protection Fund adjusts for short term volatility and uncertainty by taking a longer term time horizon. The LTRM generates a probability distribution of claims on the Pension Protection Fund on different longer term horizons from five to twenty years, taking into account a very large number of possible economic and financial market outcomes.
2. The figures shown in the charts are based on adjusting the scheme valuation data supplied to the Pension Protection Fund for the purpose of the 2007-08 levy (rather than for the 2006-07 levy as in the previous estimates). This data is transformed to a s179 valuation basis at various dates on an approximate basis using changes in market indices for principal asset classes and the fixed interest and index-linked gilt yields used to value liabilities. The approximation does not allow for benefit accrual or outgo, contributions paid or actual scheme experience.
3. The Board of the Pension Protection Fund is responsible for keeping the assumptions used for valuations under section 143 and section 179 of the Pensions Act 2004 in line with estimated pricing in the bulk annuity market. In the light of recent developments and the expansion of the buy-out market, the Board, following consultation, made changes to these assumptions, so as to bring valuations in line with the market. In summary the assumption changes for valuations with an effective date on or after 31 March 2008 were:

Mortality – PCMA00 (for males) and PCFA00 (for females), in each case with the medium cohort mortality improvement rates, and with a one per cent floor to the annual improvements.

Discount rates – all existing rates to be increased by 0.3 per cent. The Board also introduced a discount rate for non-increasing compensation in deferment.

The Board will seek evidence of changes in assumptions from confidential dialogue with market participants and from consultants. A significant shift would indicate the need for a review of assumptions. If there is no evidence of a significant shift then there would nonetheless be a review of the market every year to eighteen months.

[http://www.pensionprotectionfund.org.uk/s179\\_s143\\_doc\\_cld.pdf](http://www.pensionprotectionfund.org.uk/s179_s143_doc_cld.pdf) and  
[http://www.pensionprotectionfund.org.uk/s179\\_assumptions\\_guidance\\_mar\\_2008.pdf](http://www.pensionprotectionfund.org.uk/s179_assumptions_guidance_mar_2008.pdf)

For the PPF7800 index, the change in assumptions has been treated as a step change in the series as at 31 March 2008.

4. From 31 March 2008 updates use a more up to date data set than that used in previous notes – that used for the 2007-8 rather than 2006-7 levy invoices. The new data set is preferable largely because more schemes will have submitted s179 valuations which have replaced approximate s179 funding estimates based on older MFR valuations. The latest data set of 7,744 schemes is an enlarged version

of that used in the Purple 2007 publication which was based on a sample of 5,892 schemes.

5. The change in gilt yields over the year to April 2008 would have increased liabilities by 8.2 per cent. The liabilities at April 2008 are, however, 7.5 per cent higher than at April 2007. This is because the basis change introduced on 31 March 2008 reduced the value placed on liabilities. Some of this reduction due to the basis change has, however, been offset by the fact that liabilities are one year closer to coming into payment under the roll forward methodology adopted.
6. The move to the new data set has resulted in improvements in scheme funding. For example, the deficit in February 2008 is estimated at £67.1 billion using the new dataset and £97.5 billion using the old one. The new data set uses more accurate valuation figures from schemes and this has resulted in upward revisions to assets and downward revisions to liabilities. It has been used for all the funding calculations back to June 2002.
7. Under the old assumptions, the aggregate funding deficit would have worsened over March 2008 to £72.0 billion from £67.1 billion in February. The new assumptions, which took effect from 31 March 2008, improve scheme funding by £48.4 billion, which narrows the deficit to £23.6 billion.
8. For the calculation of the risk-based levy (RBL) for 2007-08, the Pension Protection Fund used estimates of scheme funding on a s179 basis as at 31 October 2006. The funding estimates in Purple 2007 were based on 30 March 2007. The calculation of the 2006-07 levy and Purple 2006 were based on funding as at 31 March 2006.
9. A number of 'rules of thumb' pertaining to the impact of changes in asset prices on s179 assets and liabilities apply. A 7.5 per cent rise in equity markets boosts s179 assets by around 4.8 per cent while a 0.3 per cent rise in gilt yields reduces scheme assets by 0.8 per cent. Meanwhile, a 0.3 per cent rise in gilt yields reduces scheme liabilities by 5.3 per cent. The rules of thumb strictly speaking only apply to small changes from the 31 March 08 level.