# 12 Risk reduction

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## 12.1 Summary

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

## 12.2 Contingent assets

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

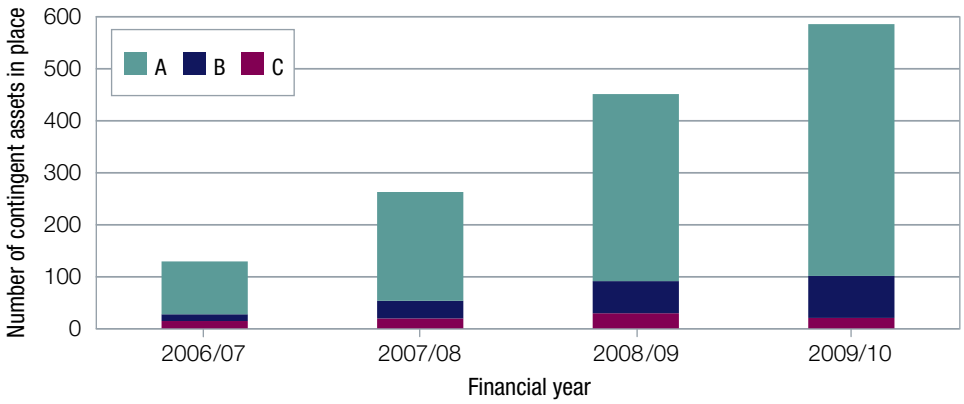
- Type A CAs are guarantees given by the parent/group companies and their undertakings. Such guarantees generally consist of an obligation for the guarantor, if called upon, to fund the scheme to a pre-arranged percentage of liabilities;
- Type B CAs comprise security over holdings of cash, real estate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

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

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

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

**Chart 12.1** | Contingent assets by type*




Source: PPF/The Pensions Regulator

*These figures are approximations only.

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

## 12.3 Deficit reduction payments

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

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

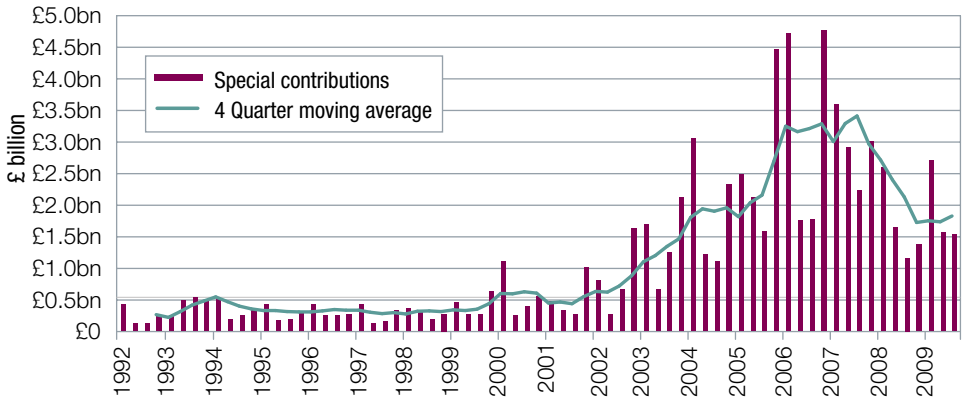
## 12.4 Special contributions

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

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

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

**Chart 12.2** | Special contributions




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

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

## 12.5 The scheme funding regime

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

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

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

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

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

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

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

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

## 12.6 Asset allocation

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

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

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

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

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

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

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

## 12.7 Liability Driven Investment

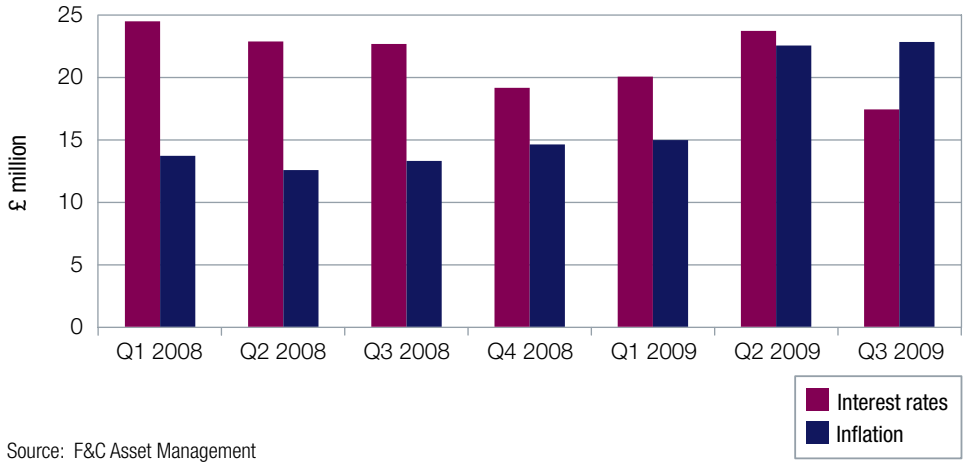
Another notable trend in pension scheme investment is the increasing popularity of liability driven investment (LDI) strategies. LDI is interpreted differently by different schemes. For example, for some, LDI is taken to refer to a wholesale shift into fixed income assets, while for others it is interpreted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

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

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

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

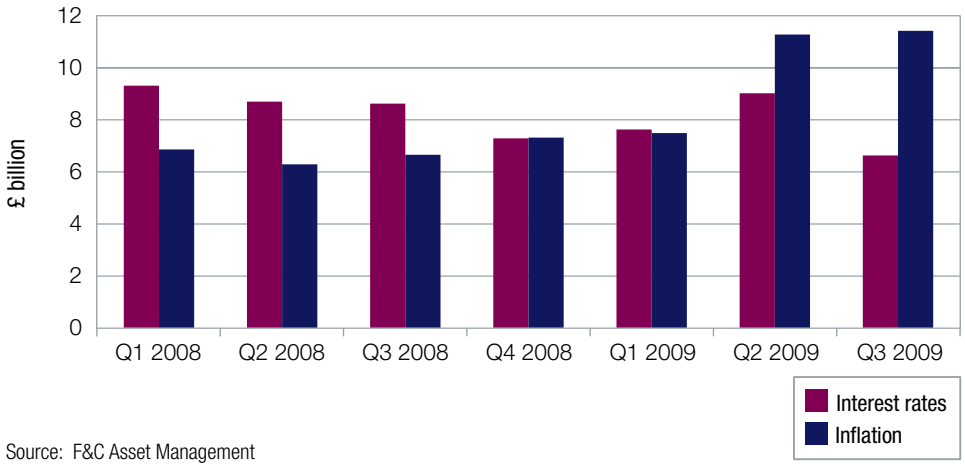
**Chart 12.3** | Inflation and interest risk traded for liability hedging purposes




Source: F&C Asset Management

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

**Chart 12.4** | Total estimated liabilities hedged*




Source: F&C Asset Management

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