Scheme funding statistics

Valuations and recovery plans of UK defined benefit
and hybrid pension schemes

May 2015

The Pensions
Regulator

Overview

This is the 2015 update to The Pensions Regulator's annual funding statistics for UK defined benefit (DB) and hybrid schemes. The tables that follow are prepared in accordance with the UK code of practice for official statistics. The underlying data are sourced from valuations and recovery plans (RPs) submitted to the regulator by schemes with surplus and deficit positions.

The update is based on Tranche 8 schemes (with effective valuation dates falling from 22 September 2012 to 21 September 2013 inclusive). These valuations fall within the third triennial cycle of the scheme funding regime with due dates for receipt falling within the period December 2013 to December 2014.

Relative to Tranche 5, Tranche 8 schemes have the same average funding ratio on a technical provisions (TPs) basis, but have larger deficits on average and receive higher deficit reduction contributions (DRCs) in nominal terms. A similar proportion has some form of contingent security.

Tranche 8 RP end dates exceed that of Tranche 5 by 2.9 years on average[1]. Additionally, Tranche 8 schemes assume a higher investment return over gilts compared to the average Tranche 5 scheme. For more detail on high level trends in this document, data summaries (tables) can be found in the appendix.

Tranche 8

By January 2015 the regulator had received over 1,800 valuations with an effective valuation date for Tranche 8. Of schemes submitting these valuations, 83% had previously submitted valuations in respect of Tranche 5 and Tranche 2. Over one tenth of Tranche 8 schemes reported a surplus of assets over TPs.

Tranche 8 schemes present a more mature profile than Tranche 5. Less than a third of Tranche 8 schemes (compared to more than a third of Tranche 5 schemes) reported that 25% or less of total TPs were held in respect of pensioner members. Less than one fifth of Tranche 8 schemes are open to new members while more than two thirds:

- comprise of fewer than 1,000 members
- have less than £100m in liabilities on a TPs basis
- have a RP of less than 10 years in length

1 Averages are unweighted unless stated otherwise.

This is comparable with other tranches in the third triennial cycle.

About one fifth of Tranche 8 schemes hold at least one contingent asset (Tables 1.1, 1.2, appendix).

Key figures

- 82.5%: average ratio of assets to TPs for schemes in deficit and surplus
    - 109.0%: average ratio of assets to TPs for schemes in surplus
    - 78.7%: average ratio of assets to TPs for schemes in deficit
- 4.09%: average nominal single effective discount rate (SEDR) for schemes in deficit and surplus; with 50% of assumptions falling on or between 3.75% and 4.50%
- 0.88%: average real SEDR for schemes in deficit only; with 50% of assumptions falling on or between 0.48% and 1.30%
- 90.1 years: average life expectancy of a future male pensioner currently aged 45 for schemes in deficit and surplus
- 8.5 years: average RP length for schemes in deficit

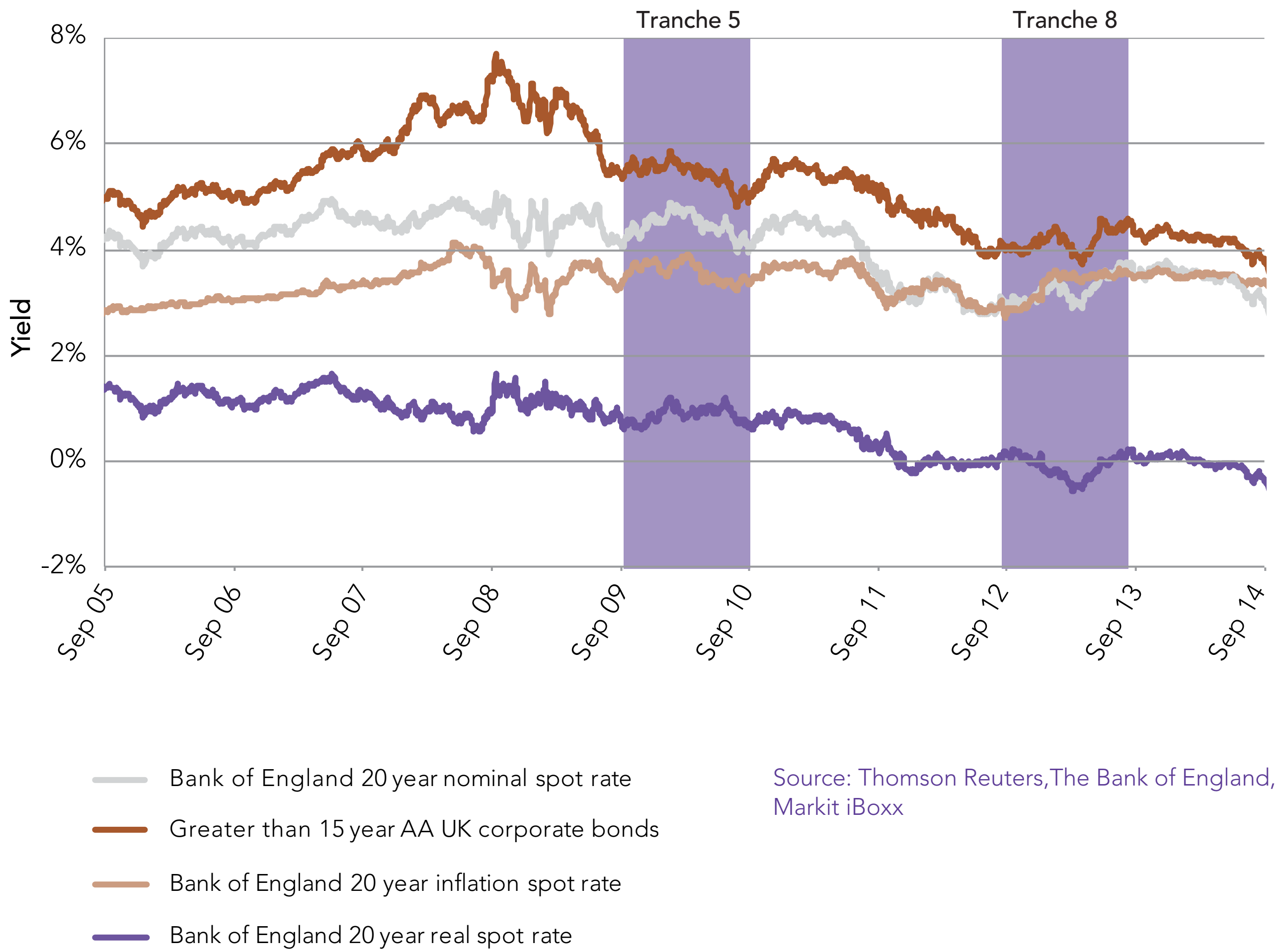
Market conditions

In the three years to 31 March 2013 (the effective date of many Tranche 8 valuations), yields on corporate and government bonds declined overall, with index-linked gilts showing negative yields.

During this time the UK economy experienced slow recovery with several quarters of zero or negative growth. Equity markets improved during the inter-valuation period relative to March 2010 while the outlook for long-term market-implied inflation (as estimated by the Bank of England) had been revised downward by the end of the same period.

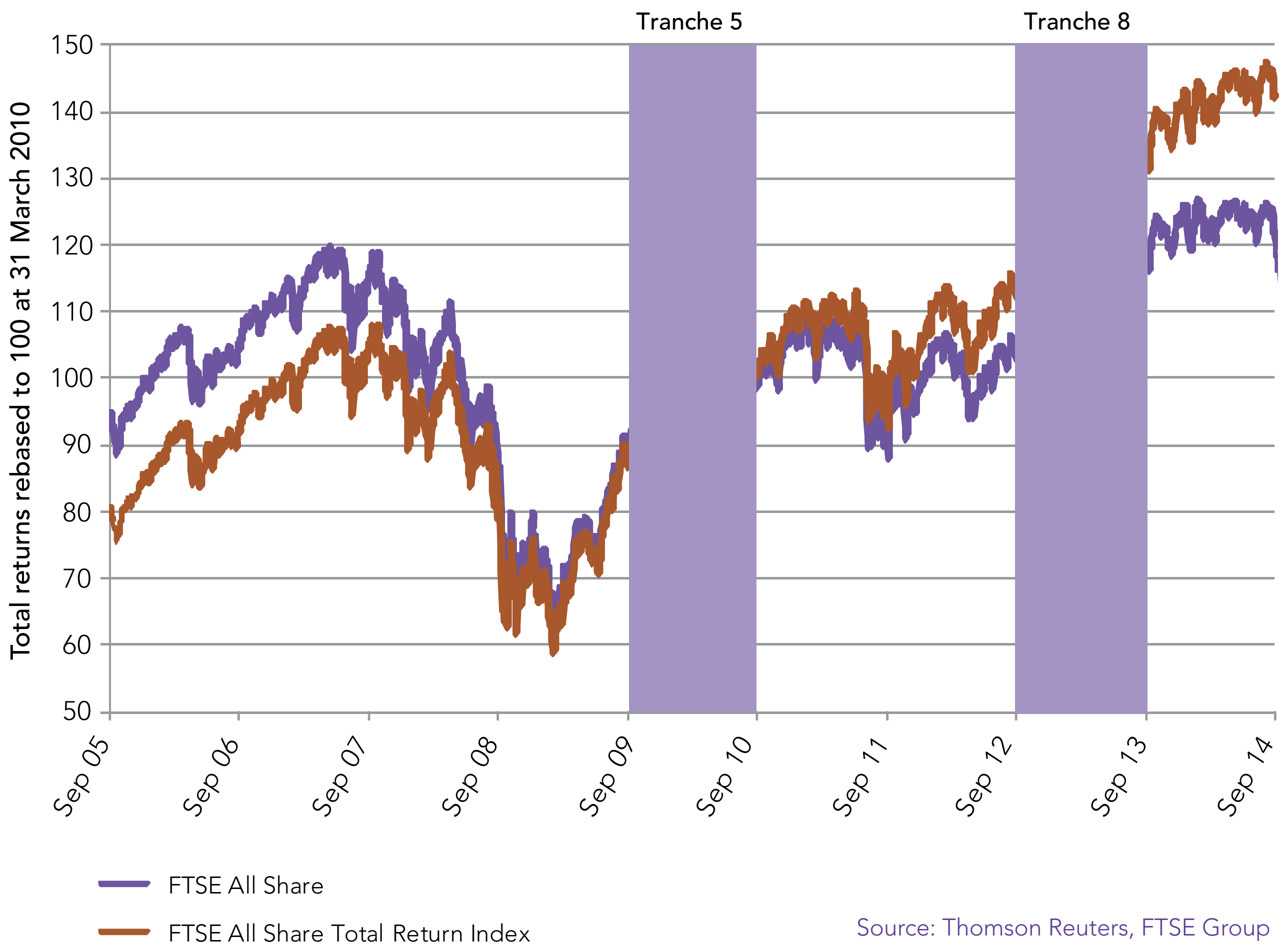
Figures 1 and 2 show market indicators up to and covering the Tranche 8 valuation period.

Figure 1: Bond indices and market implied inflation



Source: Thomson Reuters, The Bank of England, Markit iBoxx

Figure 2: Equity indices



Source: Thomson Reuters, FTSE Group

Recovery plan

The mean RP length is 8.5 years for Tranche 8, unchanged (in absolute terms) relative to Tranche 5. The median RP length is 8.0 years for Tranche 8 compared to 8.3 years for Tranche 5. Tranche 8 RP end dates exceed those of Tranche 5 by 2.9 years on average. This may have been driven by larger deficits and/or constraints to sponsor affordability, among other factors.

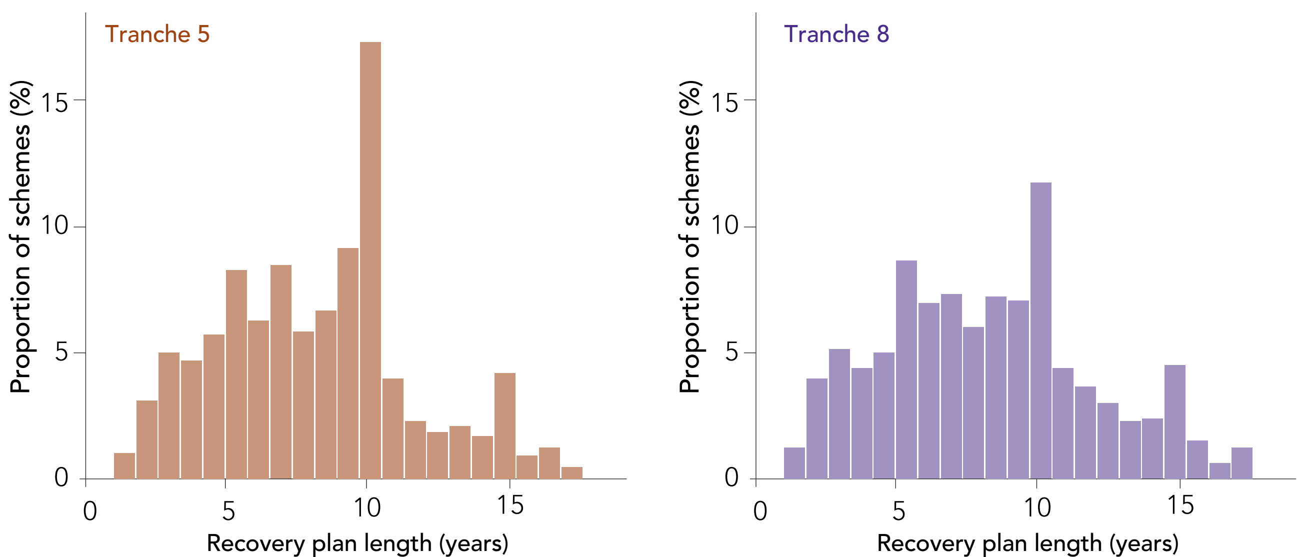
Longer plans tend to be associated with schemes:

- of larger sizes (by TPs)
- with weaker covenant support
- with 40% or more of scheme assets invested in return-seeking assets

(Tables 3.1, 3.4, appendix.)

Figure 3 shows the distribution of plan lengths for Tranches 5 and 8. Tranche 8 has a lower proportion of plans that are 10 years in length and a relatively fuller distribution of plan lengths at and above 10 years.

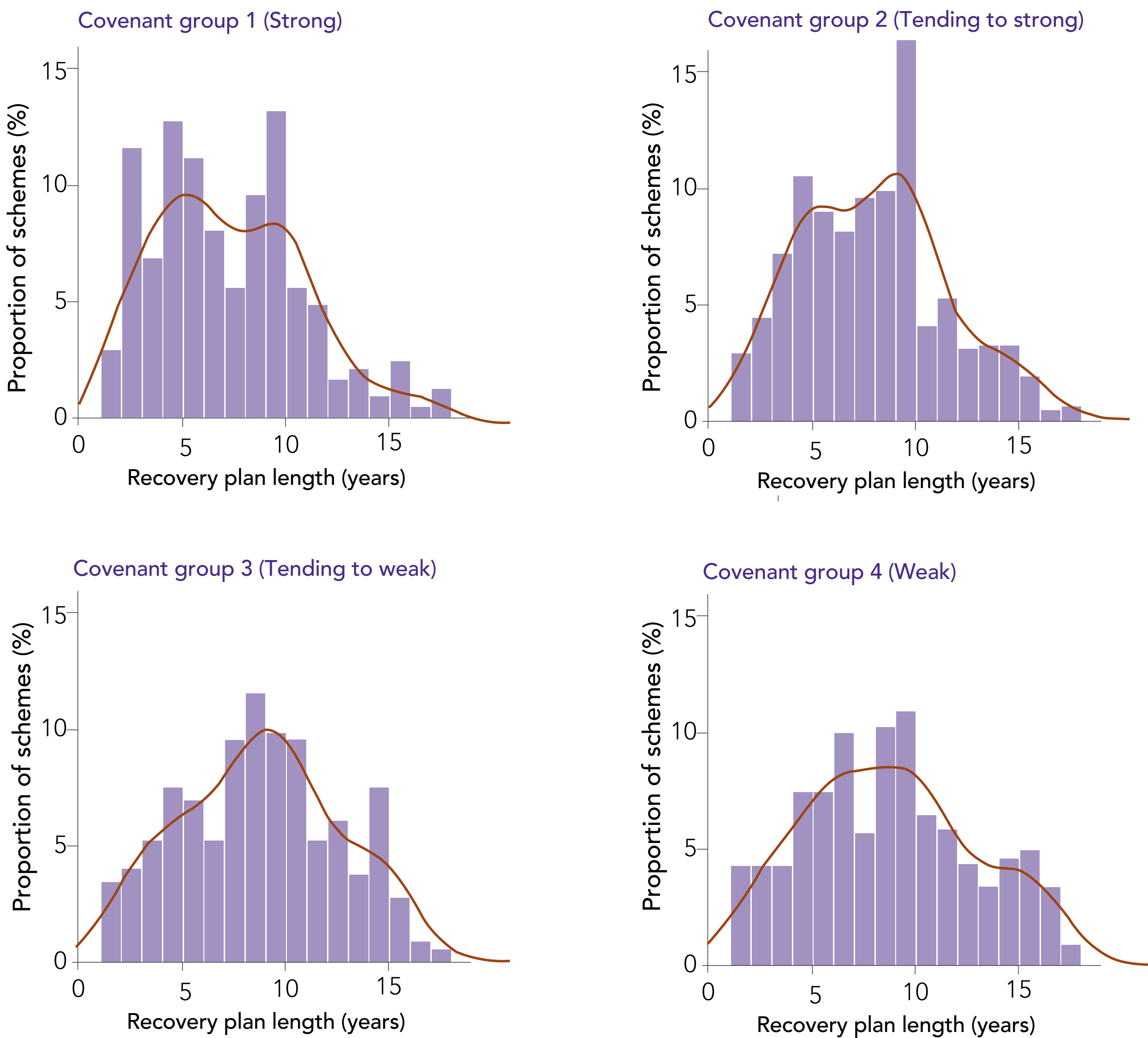
Figure 3: Distribution of RP lengths



Source: The Pensions Regulator

Figure 4 shows the distribution of plan lengths split by Tranche 8 covenant groups. Tranche 8 schemes with the weakest covenant support (covenant group 4) have an average RP length of 10 years compared to seven years for schemes with the strongest covenant support (covenant group 1). There is a relatively higher proportion of plans exceeding 10 years for schemes with sponsors in covenant group 4.

Figure 4: Distribution of RP lengths split by Tranche 8 covenant group



Source: The Pensions Regulator

Average[2] annual DRCs as a proportion of liabilities calculated on a broadly consistent (reference) basis[3] for Tranche 8 schemes is 2.2%, compared to 2.7% for Tranche 5 schemes. For the typical scheme in deficit with valuations in respect of both Tranches 5 and 8, average annual DRCs have increased by 14% in nominal terms at the median, while the median increase in liabilities calculated on a reference basis is 33%.

A higher level of DRCs as a percentage of liabilities on a reference basis is associated with:

- shorter RPs
- less mature schemes (probably due to lower ratio of assets to TPs on average in general)
- schemes without a contingent asset
- smaller schemes

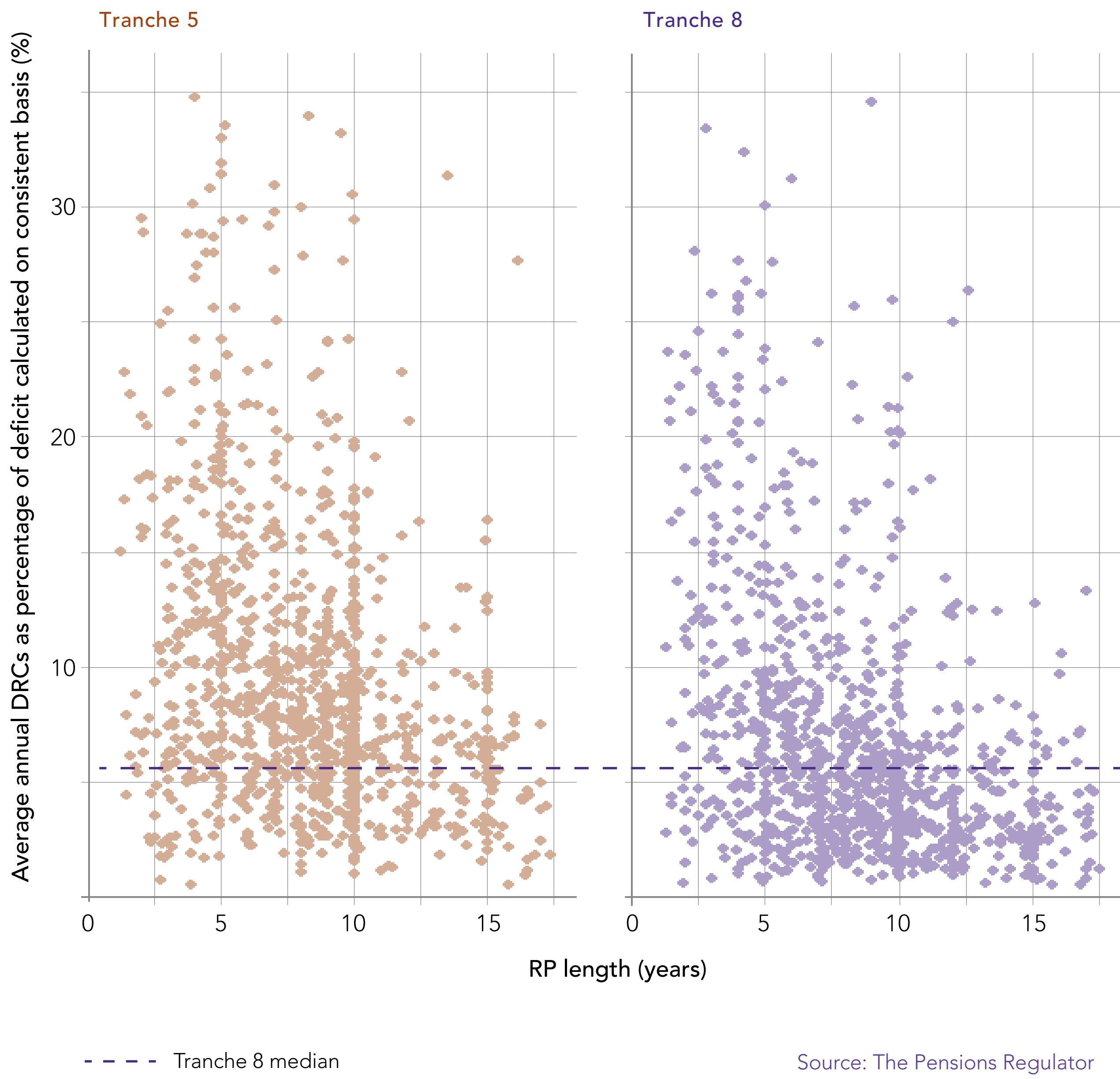
(Table 3.5, appendix.)

Figure 5 shows average annual deficit reduction contributions as a proportion of deficit calculated on a reference basis. For the majority of Tranche 8 schemes the ratio of average annual contributions to deficit estimated on a consistent basis is less than 10%.

2
Mean of the first four years of the RP.

3
Liabilities are estimated using gilts with an excess return of 50 basis points.

Figure 5: Average annual contributions as a proportion of deficit calculated on a reference basis against RP length



Contingent security

In addition to DRCs, nearly one fifth of Tranche 8 schemes have additional security in the form of one or more contingent assets – which typically, but not always, take the form of guarantees from a sponsor's parent or associated entity.

About 13% of schemes have contingent assets that are formally recognised by the Pension Protection Fund (PPF) in the calculation of the PPF risk-based levy. Another 7% of schemes have contingent assets that are not recognised by the PPF but are reported as additional security in support of funding.

The presence of contingent assets is associated with:

- larger schemes
- greater covenant support
- longer RPs
- lower funding on TPs

The findings suggest that for some schemes contingent assets may be provided in lieu of shorter plans.

As with the previous tranche, a small percentage of Tranche 8 schemes report asset-backed funding arrangements, which are integrated with the RP.

Funding

The RP outcomes seen above reflect, among other factors, Tranche 8 funding positions.

Due to the sensitivity of assets and liabilities to economic experience and market conditions at the valuation date, developments in the three years to Tranche 8 valuations will have had an impact on valuations. The aggregate assets and liabilities of Tranche 8 schemes are £290 billion and £350 billion respectively.

Despite an increase in liabilities, the average ratio of assets to TPs for Tranche 8 is 82.5% (84.8% weighted[4]), unchanged from Tranche 5 due to an increase in assets of similar proportion. The ratio is generally higher for schemes:

- that are open to new members
- with a greater level of sponsor support (deficit schemes only)
- with a lower proportion of assets invested in return-seeking assets
- without a contingent asset
- with shorter RPs

For schemes in surplus only, the average ratio of assets to TPs is 109%.

The average ratios of assets to liabilities on the s179 and buyout bases, 84.7% and 58.7% (90.8% and 60.3% unweighted) respectively, have decreased compared to the corresponding ratios for Tranche 5 (Tables 2.2, 2.3, appendix). Figure 6 below shows the distributions for some key funding ratios. It can be seen that the ratio of assets to TPs takes on a wider range of values for Tranche 8 than for Tranche 5.

4
Weighted by TPs.

Figure 6a: Ratio of assets to TPs (Tranches 5 and 8 only)

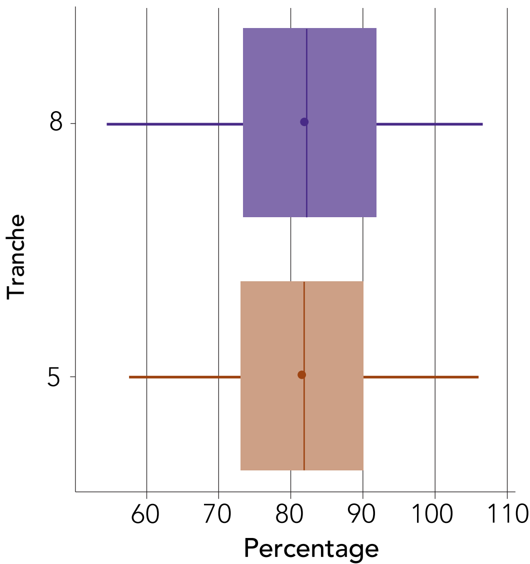


Figure 6b: Ratio of assets to buyout liabilities (Tranches 5 and 8 only)

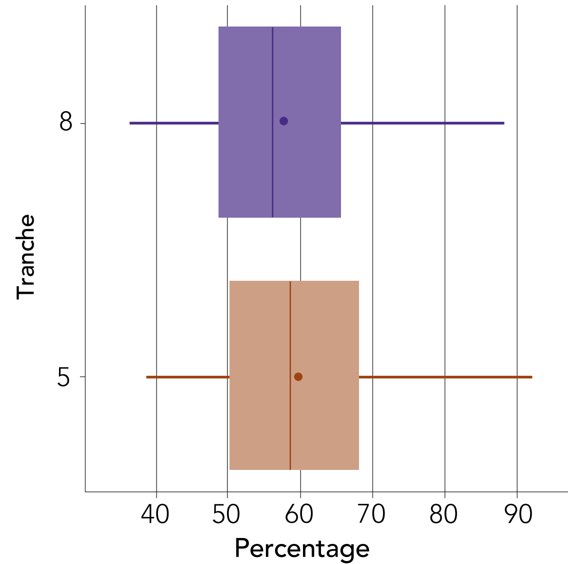
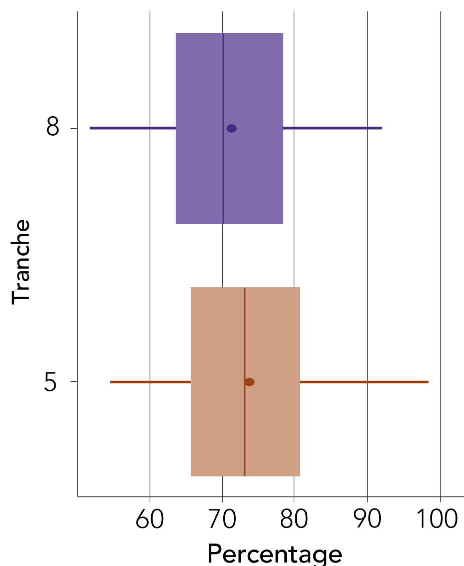
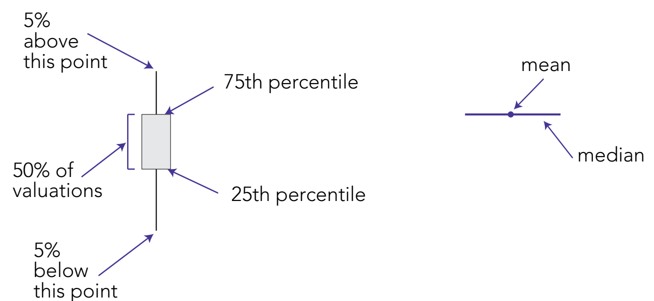


Figure 6c: TPs as a proportion of buyout liabilities (Tranches 5 and 8 only)



Tranche 8
Tranche 5

Source: The Pensions Regulator



For schemes submitting valuations in respect of both Tranche 5 and Tranche 8, the median increase in both assets and TPs is 29% between valuations. Positive investment returns over the three years to valuation, improved asset values and sponsor contributions will have contributed to the observed increase in scheme assets.

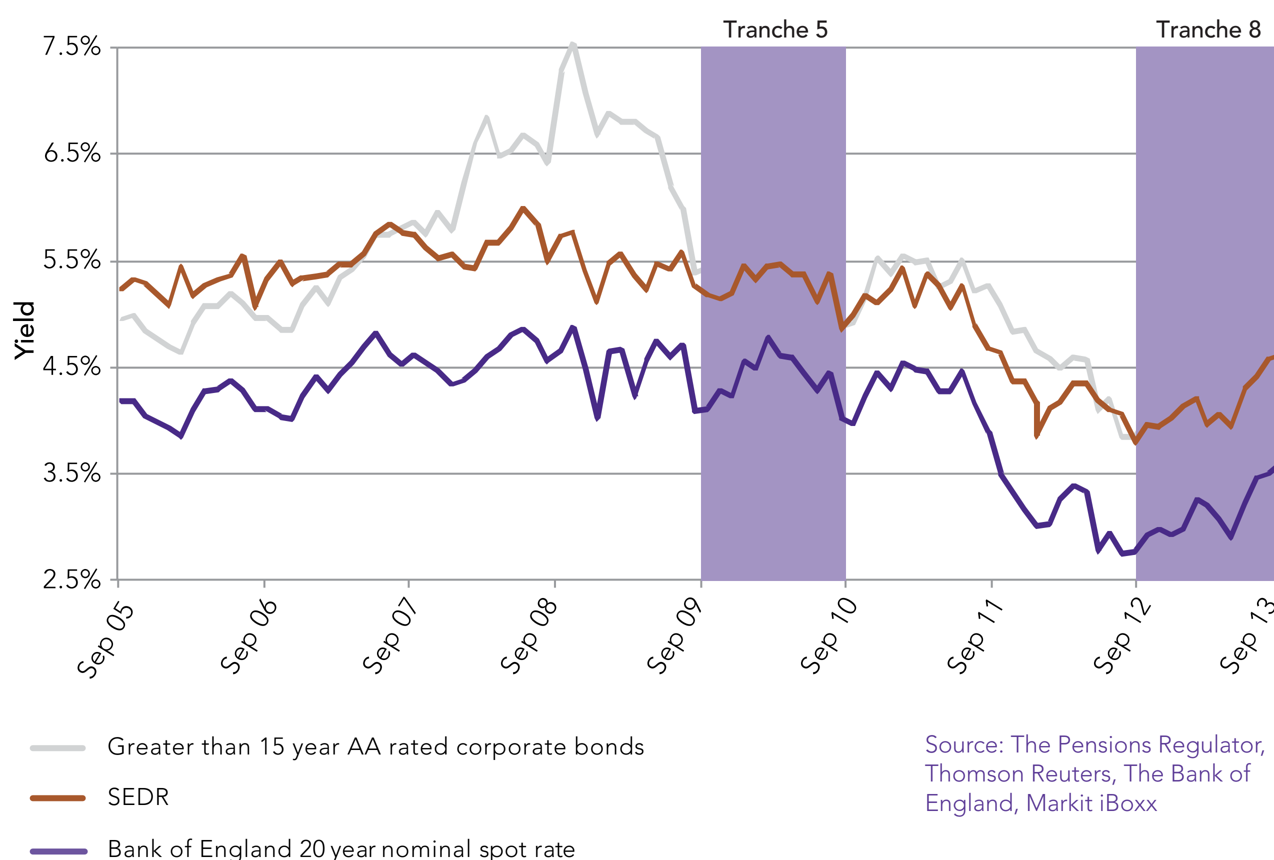
On the other hand, the increase in TPs is in part a function of depressed interest rate conditions in 2012 to 2013 (relative to three years previously) to the extent that Tranche 8 discount rates used to calculate TPs reflect the reduction in yields on gilts and other investment classes.

Discount rates

Market conditions influencing Tranche 8 liability valuations will be reflected in the discount rate assumption. Figure 7 shows the median SEDR relative to 20 year UK gilts and greater than 15 year AA rated corporate bonds (schemes in deficit in Tranches 1 to 7 and for all schemes in Tranche 8).

Although the 20 year nominal spot rate declined over the inter-valuation period, during Tranche 8 it was generally increasing, with the lowest points at the start of the window and at end of April 2013. On 31 December 2012 and 31 March 2013 (the two most common valuation dates) the 20 year spot rate is 3.03% and 3.11% respectively, while the corresponding median SEDR for valuations is 4.10% and 4.20% respectively.

Figure 7: Median (nominal) SEDR, 20 year nominal and real UK government spot rates, greater than 15 year AA rated corporate bonds



Source: The Pensions Regulator, Thomson Reuters, The Bank of England, Markit iBoxx

The average (real) SEDR is 0.88% in Tranche 8 compared to 1.76% in Tranche 5 (Table 4.2, appendix). It is generally higher for schemes with a greater proportion of scheme assets invested in return-seeking asset classes.

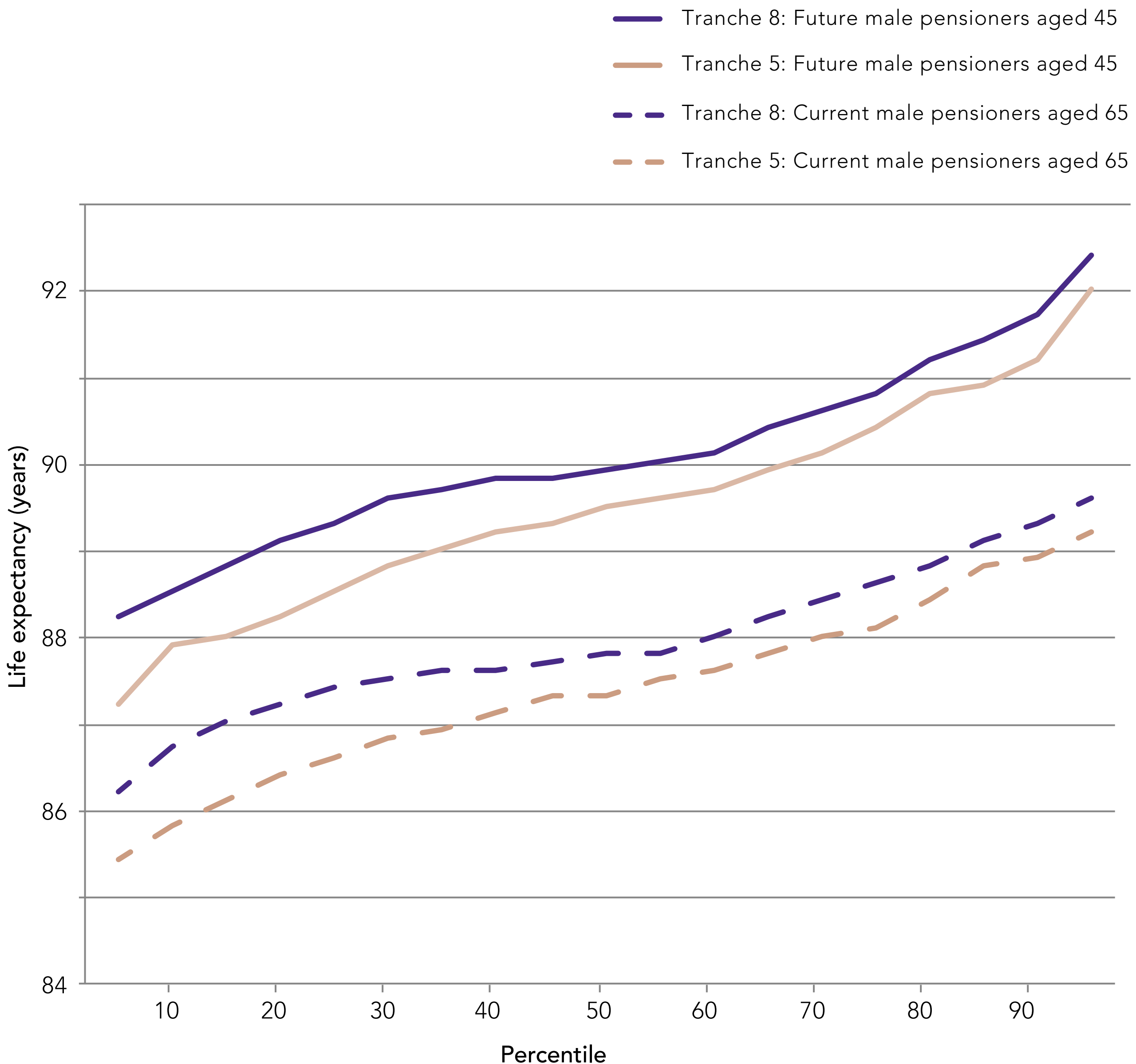
The average assumed return over gilts is relatively higher for Tranche 8, compared to Tranche 5. The average outperformance of the real SEDR over the 20 year real government spot rate is 1.13% for Tranche 8,compared to 0.90% for Tranche 5 (Tables 4.6, 4.7, appendix).

Life expectancies and mortality assumptions

For some schemes, life expectancy improvements may have added to the growth in TPs between the tranches. The average assumed life expectancy for a future male pensioner currently aged 45 is 90.1 years (compared to 89.5 years in Tranche 5).

Figure 8 shows the distribution of assumed life expectancies for future and current male pensioners aged 45 and 65 respectively in Tranches 5 and 8. At the median the assumed life expectancy of a current male pensioner aged 65 for Tranche 5 is 87.3 years compared to 87.8 years for Tranche 8.

Figure 8: Distribution of life expectancies for future and current male pensioners aged 45 and 65, respectively (Tranches 5 and 8)



Source: The Pensions Regulator

As with the previous tranche, Tranche 8 mortality assumptions reflect the widespread adoption of more recently released tables and projections for 2012 to 2013 valuations compared to those used for 2009 to 2010 valuations.

87% of Tranche 8 schemes use s1 tables; 50% apply a scaling factor or rating to base tables to adjust for scheme experience; 91% use the continuous mortality investigation (CMI) projection model (first published in 2009) to allow for future improvements; while over two thirds of schemes assume a long term rate of improvement/underpin of 1.5% or higher.

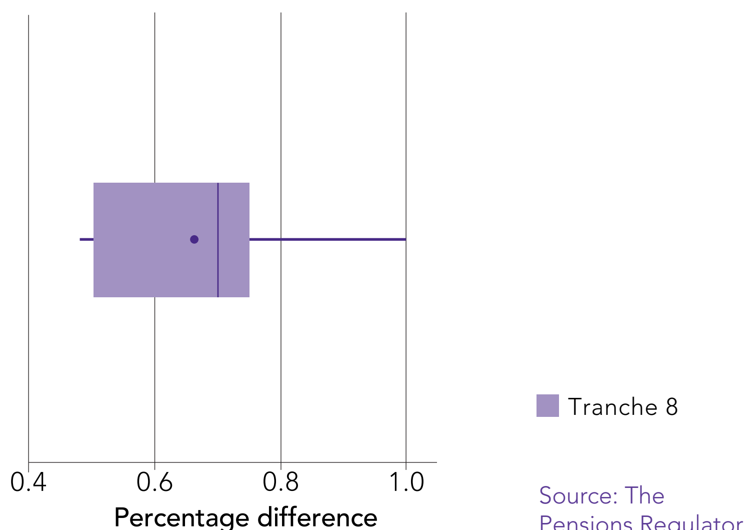
Other financial assumptions

Another assumption which will have affected some Tranche 8 valuations is the use of Consumer Price Index (CPI) inflation for pension increases where Retail Price Index (RPI) indexation was previously in use. RPI has historically been higher than CPI and the impact for some schemes would be a reduction (all things remaining equal) in liabilities.

However the actual impact will depend on the extent to which liabilities are linked to inflation and will reflect market expectations at the time of valuations for future RPI and CPI.

The median Tranche 8 CPI assumption is 2.60% and with 90% of values falling between 2.0% and 3.10%. The median difference in RPI and CPI assumptions is 0.70% (shown in Figure 9), with 90% of the distribution falling between 0.48% and 1.00%.

Figure 9: Distribution of the difference between RPI and CPI assumptions (Tranche 8)



Source: The Pensions Regulator

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