Pension
Protection
Fund

The Purple Book 2024

DB pensions universe risk profile

Contents

Introduction

The Purple Book, also known as The Pensions Universe Risk Profile, is now in its 19th edition.

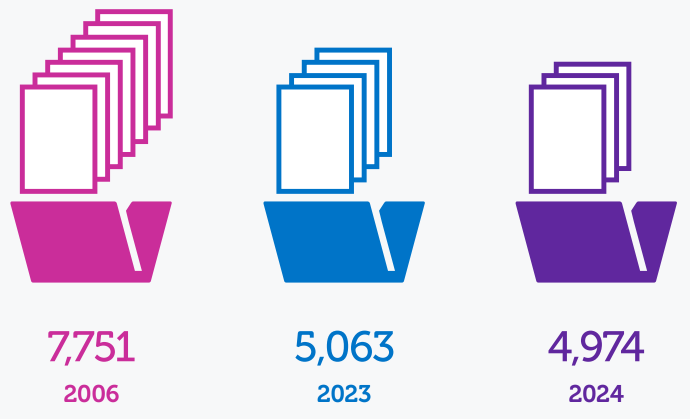
We've published *The Purple Book* annually since 2006, giving the most comprehensive data and analysis of the UK defined benefit (DB) pensions landscape. This publication tracks trends in DB scheme funding, demographics, asset allocation, and more.

It also gives us, the Pension Protection Fund, an in-depth understanding of the risks we face from the universe of schemes we protect. Understanding this information helps us to model the level of claims we may need to absorb in years to come, and helps inform decisions on our funding strategy.

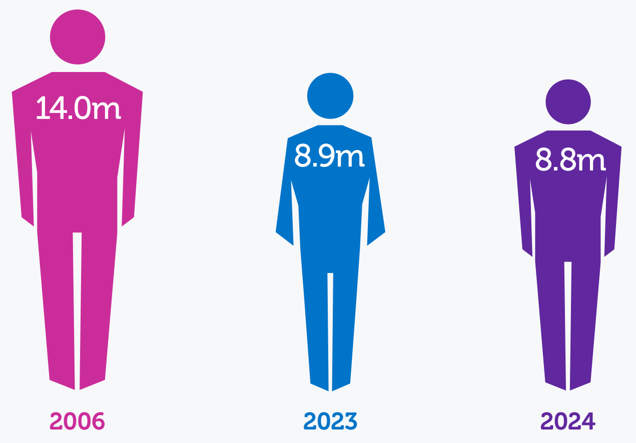
The Purple Book is the starting point of the PPF 7800 index, a monthly update of universe assets and liabilities that we publish on our website.

Overview

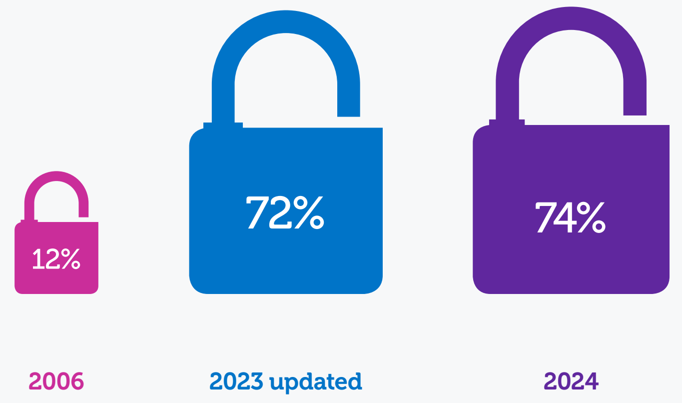
Number of PPF-eligible schemes



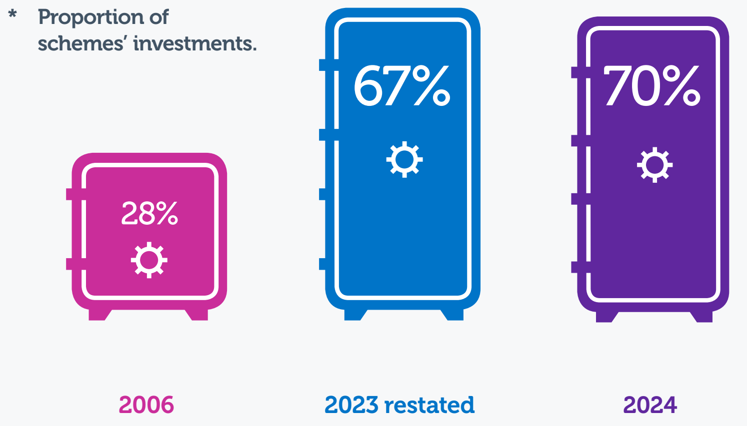
Number of members



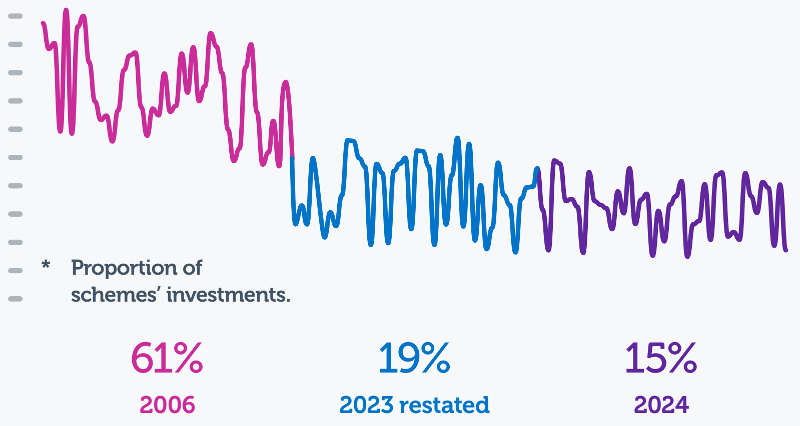
Proportion of schemes closed to new benefit accrual



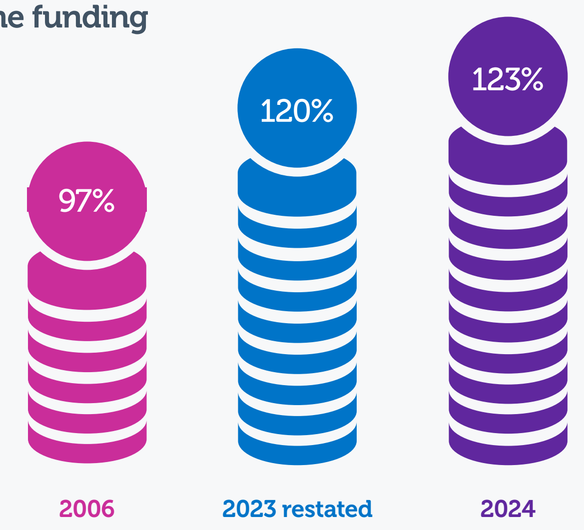
Bonds trend*



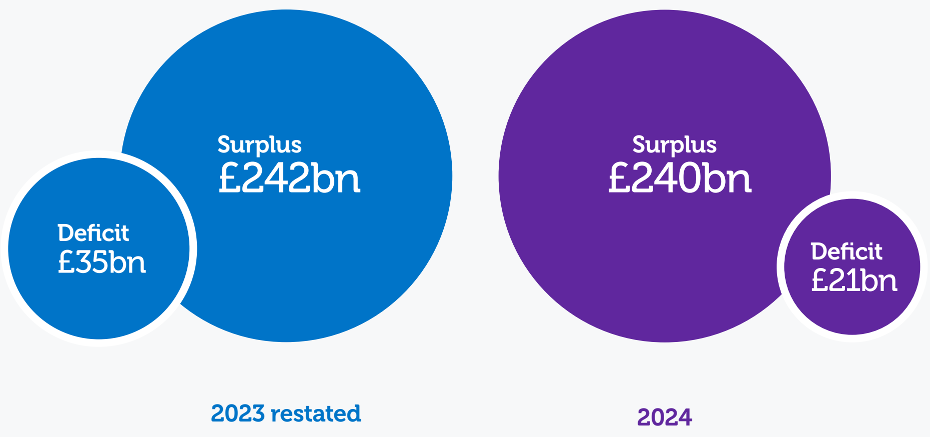
Equities trend*



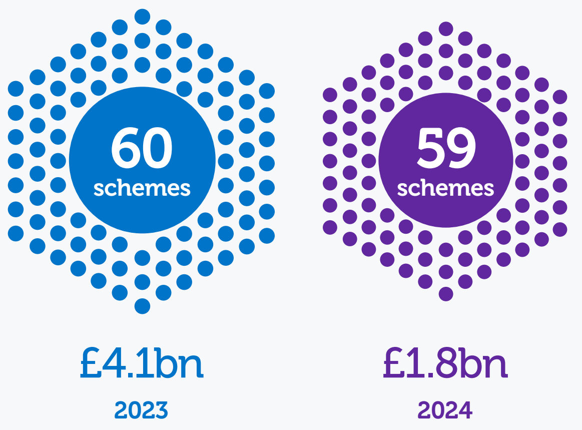
Scheme funding



Surplus/deficit of schemes in surplus/deficit



Number and liabilities of schemes in PPF assessment



01 Executive summary

Highlights and key trends from this year's *Purple Book*.

Updates since *The Purple Book 2023*

There are two large differences to some of the figures presented in *The Purple Book 2024* compared to *The Purple Book 2023* as published. The main update is to the methodology we've used to roll forward the assets and liabilities. We now use more granular asset allocation data collected in annual scheme returns by The Pensions Regulator (TPR), applying a wider range of relevant market indices in our asset roll-forward calculations. In addition, where previously we did not take account of cashflows in and out of schemes – particularly benefit payments – our calculations now include estimates of these. Chapter 04 (Scheme funding) and the appendix give more details.

The other update is to scheme status data. Where presented in *The Purple Book 2024*, this is as usual based on the data reported to TPR in the scheme returns, but it now follows TPR's new enhanced analysis of scheme status data submitted. This was not used in the data featured in *The Purple Book 2023*. Chapter 03 (Scheme demographics) and the appendix give more details.

Data

We estimate there to be 4,974 schemes in the Pension Protection Fund's (PPF) eligible universe as at 31 March 2024[1], a reduction from 5,063 as at 31 March 2023. The declining universe reflects schemes winding up, scheme mergers, and schemes entering PPF assessment. This year, *The Purple Book* dataset covers 4,969 schemes – 99.9 per cent of the estimated 4,974 schemes eligible for PPF compensation.

Schemes with more than 5,000 members make up almost 75 per cent of each of total assets, liabilities, and members, while only forming six per cent of the total number of schemes in *The Purple Book 2024* dataset. Conversely, schemes with fewer than 1,000 members make up 80 per cent of the total number of schemes but only around 10 per cent of total assets, liabilities, and members.

Scheme demographics

The proportion of schemes open to new members is four per cent. This is the same as in 2023 following TPR's enhanced validation methodology of scheme status data (*The Purple Book 2023* as published stated nine per cent). While the open share fell sharply from 2006 to 2011, the decline has slowed since then. Schemes that are closed to new members continue to also close to new benefit accrual, albeit at a slow rate. 93 per cent of schemes are closed to new members – 74 per cent are also closed to new benefit accrual and 19 per cent remain open to new benefit accrual. The remaining three per cent of schemes are in wind-up.

There are around 0.7 million active members – i.e. members who continue to accrue benefits in a scheme still open to it – in *The Purple Book 2024* dataset. The number of active members has fallen each year since the first edition of *The Purple Book* in 2006, when there were 3.6 million.

Schemes that remain open tend to be larger in terms of membership. While four per cent of schemes are open, 13 per cent of members are in those schemes. 19 per cent of schemes are closed to new members but open to new benefit accrual, but 28 per cent of members are in such schemes.

The Purple Book 2024 dataset includes 8.8 million DB scheme members. Of these:

- 46 per cent are pensioners;
- 46 per cent are deferred members; and
- 8 per cent are active members.

Scheme funding

Universe scheme funding improved in the year to 31 March 2024. The net funding position on a section 179 (s179) basis[2] as shown in *The Purple Book 2024* improved to a surplus of £219.2 billion compared to a surplus of £206.9 billion the year before (2023 figure restated for our new roll-forward methodology – the surplus figure published in *The Purple Book 2023* was £358.9 billion), while the aggregate funding ratio increased to 123.1 per cent from 120.1 per cent (2023 restated figure – 134.3 per cent as published). The increase in the aggregate funding ratio is mainly the result of market movements, primarily the result of higher gilt yields driving down liability values. The impact of moving from the A10 to A11 version of the s179 liability valuation assumptions, and that of the new dataset used in *The Purple Book 2024*, broadly offset each other.

On an estimated full buy-out basis, the net funding position improved from a deficit of £133.3 billion the year before (restated) to a deficit of £69.5 billion. The funding ratio increased from 90.3 per cent (restated) to 94.4 per cent.

The funding ratios we have estimated as at 31 March 2024 are calculated from funding information supplied in scheme returns submitted to TPR. Specifically, the values of assets and liabilities are rolled forward to the effective date of *The Purple Book* from the schemes' s179 valuations. Regardless of the refinements to our roll-forward methodology mentioned earlier, it remains approximate in nature and the modelling necessarily features a number of estimations and judgements.

Asset allocation

The aggregate proportion of schemes' assets invested in equities fell from 18.8 per cent (2023 restated) to 15.5 per cent and the proportion in bonds rose from 66.5 per cent (2023 restated) to 69.8 per cent.

Within bonds, the proportions held in government fixed-interest, corporate, and index-linked bonds are 19.5 per cent, 35.0 per cent, and 45.5 per cent, respectively. These proportions are similar to the prior year's.

Within equities, the proportion invested in UK equities continued to fall, to less than seven per cent, but over the last year there was a sharper drop in the proportion invested in overseas equities, in favour of private or unquoted equity, whose proportion has risen to over 40 per cent.

Risk reduction

DB pension schemes have continued to close to new benefit accrual. Schemes continue to invest a large proportion – almost 70 per cent – of their assets in bonds. The proportion of assets invested in equities is close to 15 per cent.

Based only on current recovery plans in place, total annual recovery plan payments are indicated to be largely finished in 10 years' time, decreasing from around £6.6 billion in 2024 to around £0.2 billion in 2034, as schemes increasingly become fully funded on a Technical Provisions basis. However, this only shows the current position so changes may be made to existing recovery plans and new recovery plans may be put in place in the future if experience is different from what has currently been assumed by schemes.

Analysis of TPR's latest Technical Provisions and recovery plan data shows that in Tranche 17[3], the average recovery plan length was 4.7 years, about a year and a half shorter than that of Tranche 14 (comparable given the three-year valuation cycle). Assets as a percentage of Technical Provisions were 91.6 per cent and 97.2 per cent in Tranches 14 and 17, respectively.

The total number of contingent assets submitted to the PPF for the 2023/24 levy year was 165, compared with 245 in 2022/23.

There were £60 billion worth of risk transfer deals (buy-ins, buy-outs and longevity swaps) in 2023, a record year. This is around five per cent of the universe liabilities on an estimated full buy-out basis.

1 The number of schemes in the PPF-eligible universe as at 31 March 2024 could be different if any of these schemes are discovered to be ineligible for PPF protection or if any other schemes are discovered to be eligible for PPF protection as at 31 March 2024.

2 s179 liabilities represent, broadly speaking, what would have to be paid to an insurance company to take on the payment of **PPF levels of compensation** (rather than full scheme benefits).

3 Tranche 17 covers schemes with valuation dates between 22 September 2021 and 21 September 2022. https://www.thepensionsregulator.gov.uk/en/document-library/research-and-analysis/occupational-defined-benefit-scheme-funding-analysis-2024/occupational-defined-benefit-scheme-funding-analysis-2024-annex.

Executive summary continued

PPF levy, claims, and compensation

Levy

For the levy year 2023/24, the total levy invoiced was £173 million, down from £385 million the previous levy year.

The top 100 levy payers accounted for 63 per cent of the total levy, similar to the 62 per cent last year.

49 per cent of schemes had no risk-based levy, up from 40 per cent last year. No schemes saw the cap of 0.25 per cent of smoothed liabilities apply to their risk-based levy.

77 per cent of the total levy came from schemes sponsored by employers with one of the three Dun & Bradstreet (D&B) scorecards 'Non-Subsidiaries £30 million+ and Large Subsidiaries', 'Credit Rated', or 'Group £50m+'.

Claims

In the year to 31 March 2024, 18 new schemes entered PPF assessment. This is a similar number to last year's 20 new schemes, as is the total value of the year's claims of £14 million (as measured on an s179 basis), compared to last year's £10 million.

Compensation

In the year to 31 March 2024, the PPF made compensation payments of £1.2 billion, the same amount as in the previous year. As at 31 March 2024, there were 204,831 records in respect of members receiving compensation[1], up from 199,895 a year earlier. The average annual payment per record to members receiving compensation was £4,940, up slightly from £4,882 as at 31 March 2023.

PPF risk developments

We published our funding strategy review in September 2022, which explains our approach to financial risk management as we move into a new phase of our funding journey. We entered this stage in a strong financial position, and our strategic aim shifted from growing our reserves to 'Maintaining our Financial Resilience'.

We defined a set of funding priorities to monitor our financial resilience. Strategic decisions on our future investment and levy strategies are guided by how our reserves compare to these priorities. We therefore need to understand how our own funding, and that of the schemes we protect, may change over time. For that, we use our Long-Term Risk Model (LTRM), a stochastic model that runs a million different scenarios to project what the future may look like, allowing for future claims, levies, investment returns, and changes in economic conditions.

Like any complex modelling exercise, LTRM projections are subject to significant uncertainty. They depend crucially on modelling assumptions, which we continually refine to reflect how experience and expectations develop over time. We carried out sensitivity testing to understand the key financial risks to which we are exposed. Under each of these tests, we are comfortable that our current strategic decisions would be unchanged. We also continue to monitor, and seek to understand, the impacts of the key risks we face, including climate change and macro-economic changes.

As at 31 March 2024, we had sufficient reserves to meet our Financial Resilience Test, and we have a high likelihood of this also being true at the time of our next planned detailed review in 2025.

Economy and market background

The following table sets out how some key market indicators in the assessment of universe scheme assets and s179 liabilities have changed over the year:

Market indicator	Change over the year to 31 March 2024
10-year fixed-interest gilt yield	+0.42pp
15-year fixed-interest gilt yield	+0.45pp
20-year fixed-interest gilt yield	+0.50pp
5–15-year index-linked gilt yield	+0.50pp
FTSE All-Share Index (TR)	+8.43%
FTSE All-World Ex-UK Index (TR)	+21.44%

pp = percentage point(s).

TR = Total Return.

We are mindful of the interest in the landscape of the DB pension scheme universe following the Liability Driven Investment (LDI) episode in September 2022. In light of that, we'd like to call attention to the fact that most s179 valuations – from which we roll forward *The Purple Book* assets and liabilities – are dated before September 2022. The valuations dated since then make up just over 20 per cent of the assets and liabilities in *The Purple Book 2024*, and one large scheme accounts for 30 per cent of that. Given this, it remains difficult to draw definitive conclusions on the impact of the LDI episode from the data available.

On the other hand, nearly all of the asset proportion information, which comes from schemes' latest audited accounts, is more recent than September 2022. As the use of new data has caused a decline in funding ratio, which is unusual in the history of *The Purple Book*, it appears largely a function of the new asset proportions.

1 Some members have more than one record in the data.

02 The data

An overview of the dataset used in this edition of *The Purple Book*.

Summary

- This chapter contains information on the number and distribution of schemes in *The Purple Book 2024* dataset and the estimated universe of PPF-eligible schemes.
- The main analysis in *The Purple Book 2024* is based on the most recent scheme returns submitted to TPR by 31 March 2024. The resulting *Purple Book* dataset includes 4,969 DB schemes, covering 8.8 million members[1]. This represents 99.9 per cent of PPF-eligible schemes and universe liabilities. A full description of the data used is set out in the appendix.
- It is estimated that the number of schemes in the eligible universe was 4,974 as at 31 March 2024, a reduction from 5,063 as at 31 March 2023. The declining universe reflects such things as schemes winding up, merging, and entering PPF assessment.
- As in previous editions of *The Purple Book*, the bulk of the analysis uses funding with pension scheme liability values measured on an 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** rather than full scheme benefits.
- We have calculated the assets and liabilities shown in *The Purple Book* by rolling forward from the latest s179 valuation. Around two thirds of assets and liabilities at 31 March 2024 have been rolled forward from s179 valuations dated between April 2021 and March 2023.

Figure 2.1 | Distribution of schemes in the estimated eligible universe and *The Purple Book 2024* dataset, by size of scheme membership

The Purple Book 2024 sample covers 99.9% of the estimated PPF-eligible schemes.

Number of members	2 to 99	100 to 999	1,000 to 4,999	5,000 to 9,999	10,000+	Total
Estimated 2024 universe (number of schemes)	1,857	2,143	662	150	162	**4,974**
The Purple Book 2024 dataset (number of schemes)	1,852	2,143	662	150	162	**4,969**
The Purple Book 2024 dataset as a % of 2024 PPF-eligible DB universe	99.7%	100.0%	100.0%	100.0%	100.0%	**99.9%**

Source: PPF

Figure 2.2 | Distribution of assets, s179 liabilities, and members in *The Purple Book 2024* dataset as at 31 March 2024

Schemes with over 5,000 members make up six per cent of schemes in *The Purple Book 2024* dataset but almost 75 per cent of each of total assets, liabilities and members.

Number of members	2 to 99	100 to 999	1,000 to 4,999	5,000 to 9,999	10,000+	Total
Assets (£bn)	12.6	99.7	193.7	151.4	709.7	**1,167.1**
s179 liabilities (£bn)	9.7	85.7	163.0	124.7	564.8	**947.9**
Number of members (000s)	79	744	1,491	1,061	5,402	**8,777**

Source: PPF

Figure 2.3 | *The Purple Book* datasets

The universe has declined by around two per cent over the year, similar to recent years. This reflects such things as schemes winding up, scheme mergers, and schemes entering PPF assessment.

Year	Number of members: Estimated universe	Number of members: *Purple Book* dataset	Number of members (m)
2006	7,751	5,772	14.0
2011	6,550	6,432	12.0
2016	5,886	5,794	10.9
2017	5,671	5,588	10.5
2018	5,524	5,450	10.4
2019	5,436	5,422	10.1
2020	5,327	5,318	9.9
2021	5,220	5,215	9.7
2022	5,131	5,131	9.6
2023	5,063	5,051	8.9
2024	4,974	4,969	8.8

Source: PPF

Note: The increase in *The Purple Book* dataset from 2006 to 2011 is mainly a result of improvements to the design of the scheme return intended to permit better PPF validation procedures.

Figure 2.4 | Distribution of assets and s179 liabilities in *The Purple Book 2024* dataset by date of s179 valuation

Around two thirds of assets and liabilities at 31 March 2024 have been rolled forward from s179 valuations dated between April 2021 and March 2023.

For *The Purple Book* we roll forward the assets and liabilities from the values featured in the latest s179 valuation, as submitted in the annual scheme returns. The following table shows the distribution of assets and liabilities (as at 31 March 2024) across effective dates of the s179 valuations from which we have rolled them forward.

s179 valuation dated between	Number of schemes	Assets (£bn)	s179 liabilities (£bn)
01/04/2023 and 31/03/2024	204	30.4	22.2
01/10/2022 and 31/03/2023	730	235.0	178.8
01/04/2022 and 30/09/2022	725	101.7	76.5
01/04/2021 and 31/03/2022	1,620	408.1	347.9
31/03/2005 and 31/03/2021	1,690	391.9	322.5
Total	**4,969**	**1,167.1**	**947.9**

Source: PPF

1 One individual can have multiple memberships (for example of different pension schemes). Hence the number of members exceeds the number of individuals.

03 Scheme demographics

This chapter looks at trends in scheme status and member status.

Schemes can be:
- open to new members;
- closed to new members but open to new benefit accrual;
- closed to new members and new benefit accrual; or
- winding up.

Members may be actively accruing benefits, deferred, or retired.

Summary

This chapter describes the dataset used for this year's edition of *The Purple Book* and includes some comparisons with data from previous years. We include figures for the total number of schemes and total scheme membership, with breakdowns by scheme size, scheme status, and member status.

How we categorise schemes has varied in previous editions of *The Purple Book* as more informative breakdowns became available. More detailed information on this history is set out in the appendix. Scheme status data presented in *The Purple Book 2024* is based on the data reported to TPR in the 2024 scheme returns. It follows TPR's new enhanced analysis of scheme status data submitted, which was not used in the data featured in *The Purple Book 2023*. Where relevant in this chapter, we've also updated figures at 31 March 2023 to reflect what they would have been under TPR's new validation methodology.

Some statistics from this chapter are summarised in the following table:

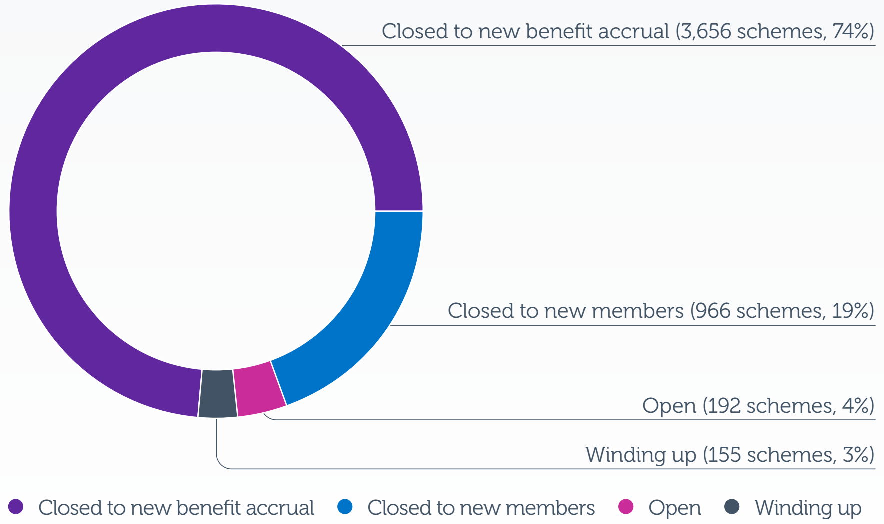
	31 March 2024	31 March 2023 updated
Number of schemes in *The Purple Book* dataset	**4,969**	5,051
Proportion of schemes that are:		
Open to new members	**4%**	4%
Closed to new members (but open to new benefit accrual)	**19%**	22%
Closed to new benefit accrual	**74%**	72%
Winding up	**3%**	2%
Number of members covered by schemes *The Purple Book* dataset, of which:	**8.8m**	8.9m
Pensioners	**46%**	45%
Deferred members	**46%**	47%
Active members (still accruing benefits)	**8%**	8%

- The number of active members has continued to fall and is currently around 0.7 million. This is around 20 per cent of the number in the first *Purple Book* dataset in 2006.
- The trend of schemes closing to both new members and new benefit accrual has continued and now accounts for just under three quarters of all schemes (74 per cent). This is a large increase compared to *The Purple Book 2023* dataset, which was not subject to TPR's new enhanced validation methodology. This compares with 12 per cent in *The Purple Book* dataset in 2006.
- 78 per cent of schemes have assets of less than £100 million.

Scheme status

Figure 3.1 | Distribution of schemes by scheme status

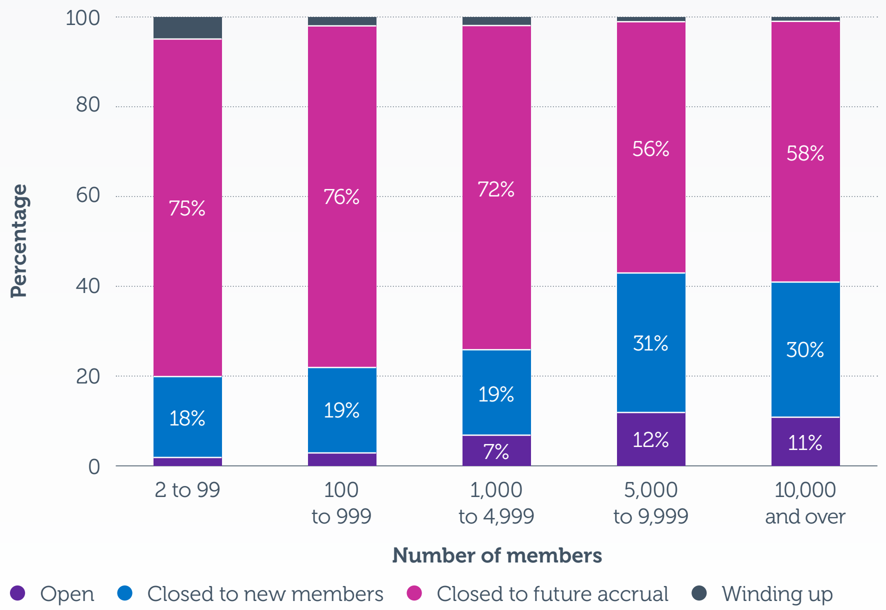
Only four per cent of schemes are open to new members.



Source: PPF

Figure 3.2 | Distribution of schemes by scheme status and member group

Large schemes are more likely to be open to new members or new benefit accrual.



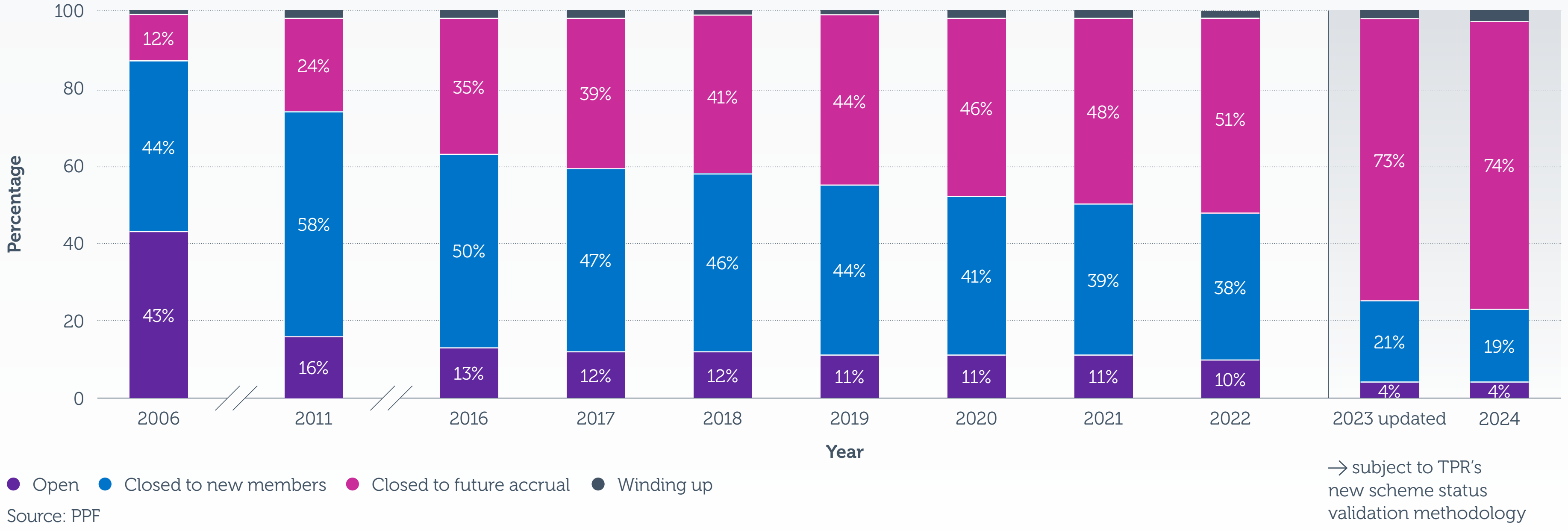
Source: PPF

Scheme demographics continued

Figure 3.3 | Distribution of schemes by scheme status and year

The trend of schemes closing to new benefit accrual has continued, with this status now covering nearly 75 per cent of schemes.

Although general trends are still visible, figures for 2023 and 2024 may not be directly comparable with those from earlier years.



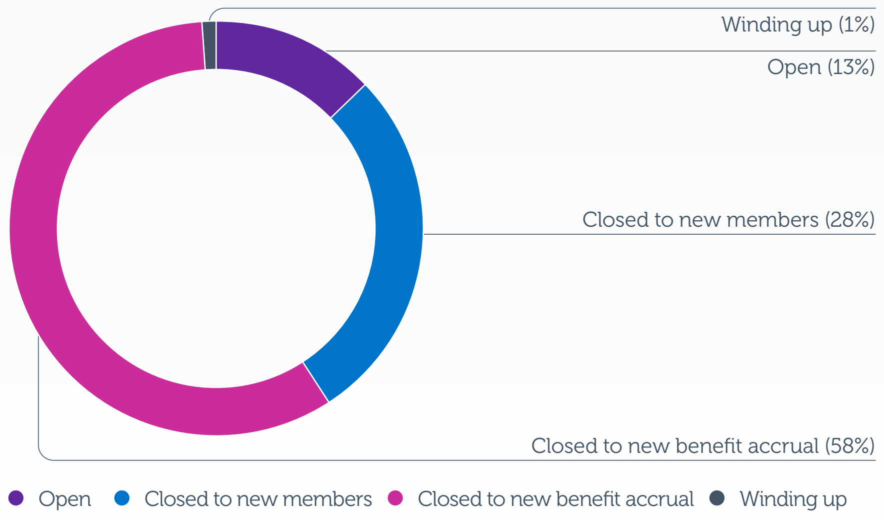
Source: PPF

Note: the percentages may not sum to 100 per cent because of rounding.

Scheme status and scheme members

Figure 3.5 | Distribution of members by scheme status

Around 41 per cent of members are in schemes that are open to new benefit accrual.



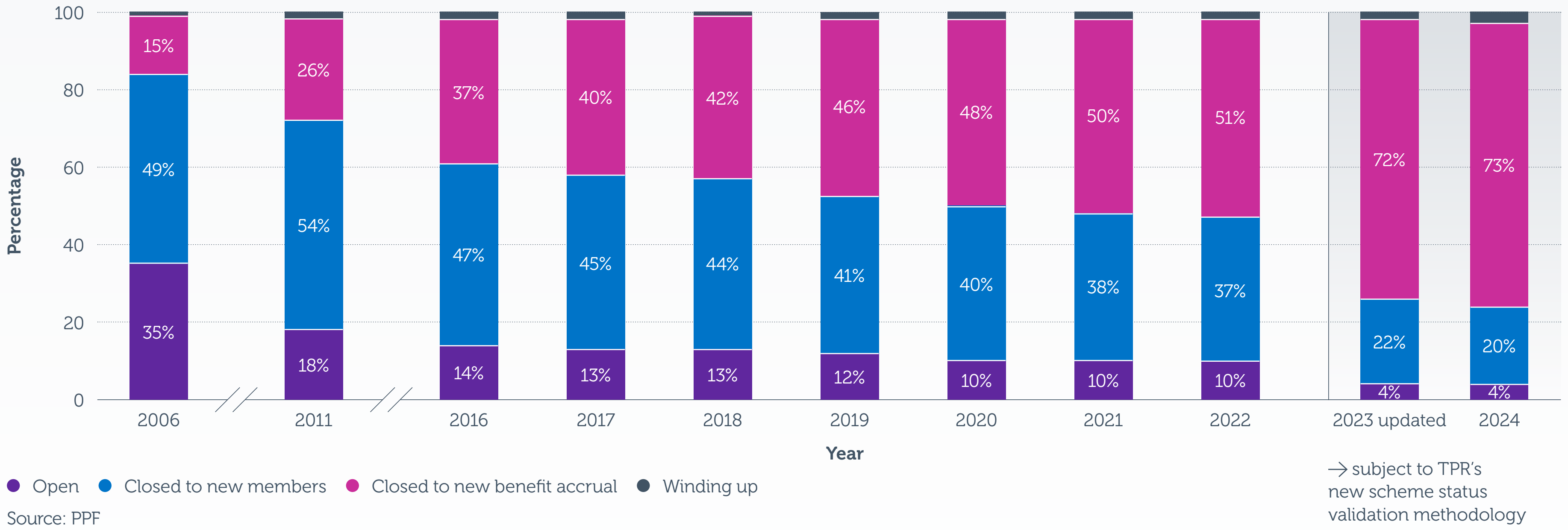
Source: PPF

Note: the percentages may not sum to 100 per cent because of rounding.

Figure 3.4 | Distribution of schemes by scheme status and year (excluding hybrid schemes[1])

The distribution of schemes by scheme status in *The Purple Book 2024* dataset is similar whether or not hybrid schemes are excluded.

Although general trends are still visible, figures for 2023 and 2024 may not be directly comparable with those from earlier years.



Source: PPF

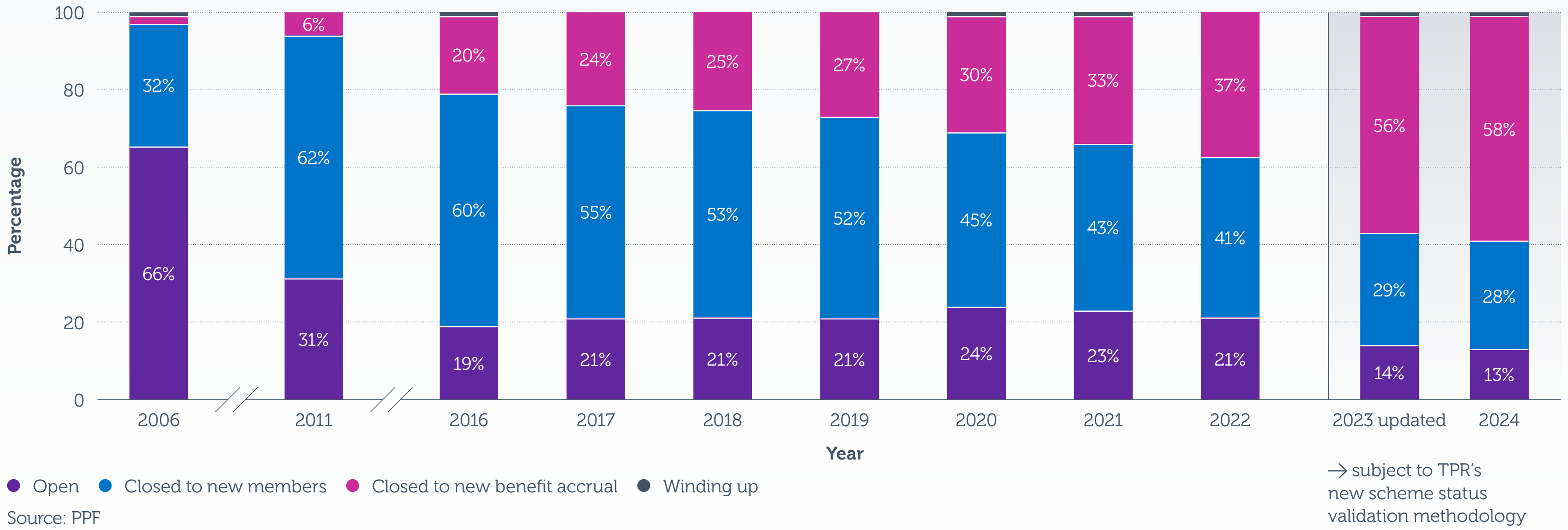
Note: the percentages may not sum to 100 per cent because of rounding.

1 A hybrid scheme is one that provides defined benefit (DB) and defined contribution (DC) benefits. The treatment of such schemes has varied in past editions of *The Purple Book* as better data has become available (see the appendix for a detailed explanation). At present we define a scheme as closed if the DB section is closed, even if the DC section remains open.

Figure 3.6 | Distribution of members by scheme status and year

Nearly 60 per cent of members are in schemes closed to new benefit accrual, compared with less than two per cent in 2006.

Although general trends are still visible, figures for 2023 and 2024 may not be directly comparable with those from earlier years.



Source: PPF

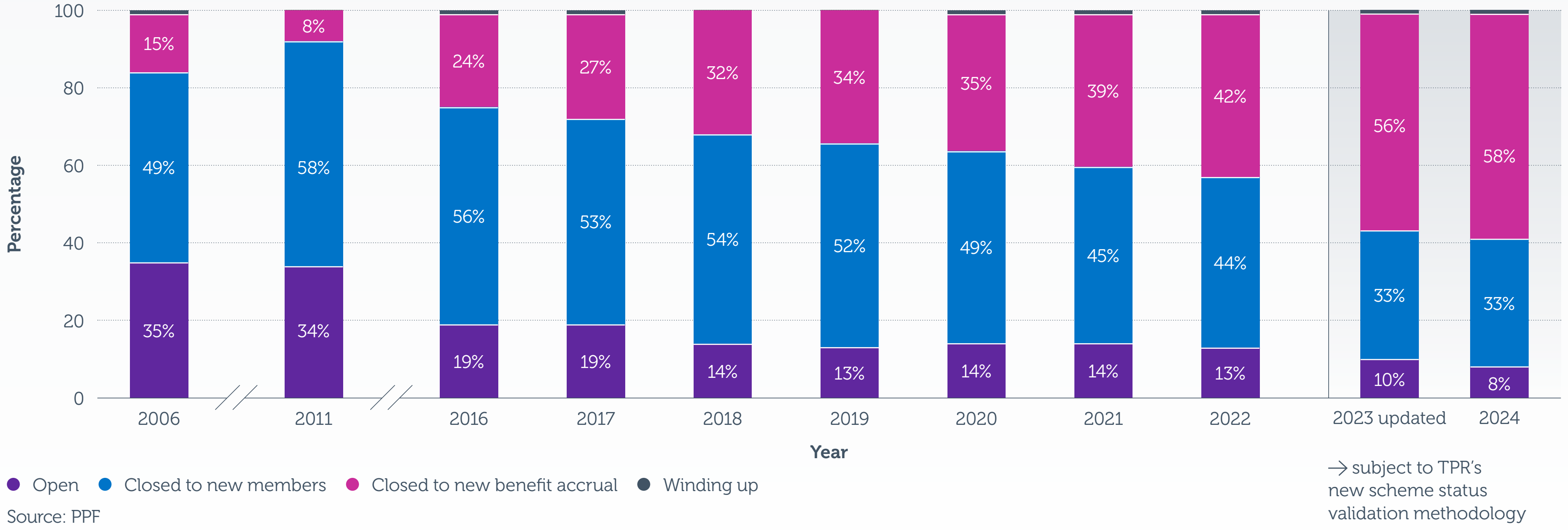
Note: the percentages may not sum to 100 per cent because of rounding.

Scheme demographics continued

Figure 3.7 | Distribution of members by scheme status and year (excluding hybrid schemes)

Excluding hybrid schemes has a notable effect on the distribution of members in open schemes in *The Purple Book 2024* dataset. This is partly due to one very large open scheme having a hybrid status.

Although general trends are still visible, figures for 2023 and 2024 may not be directly comparable with those from earlier years.

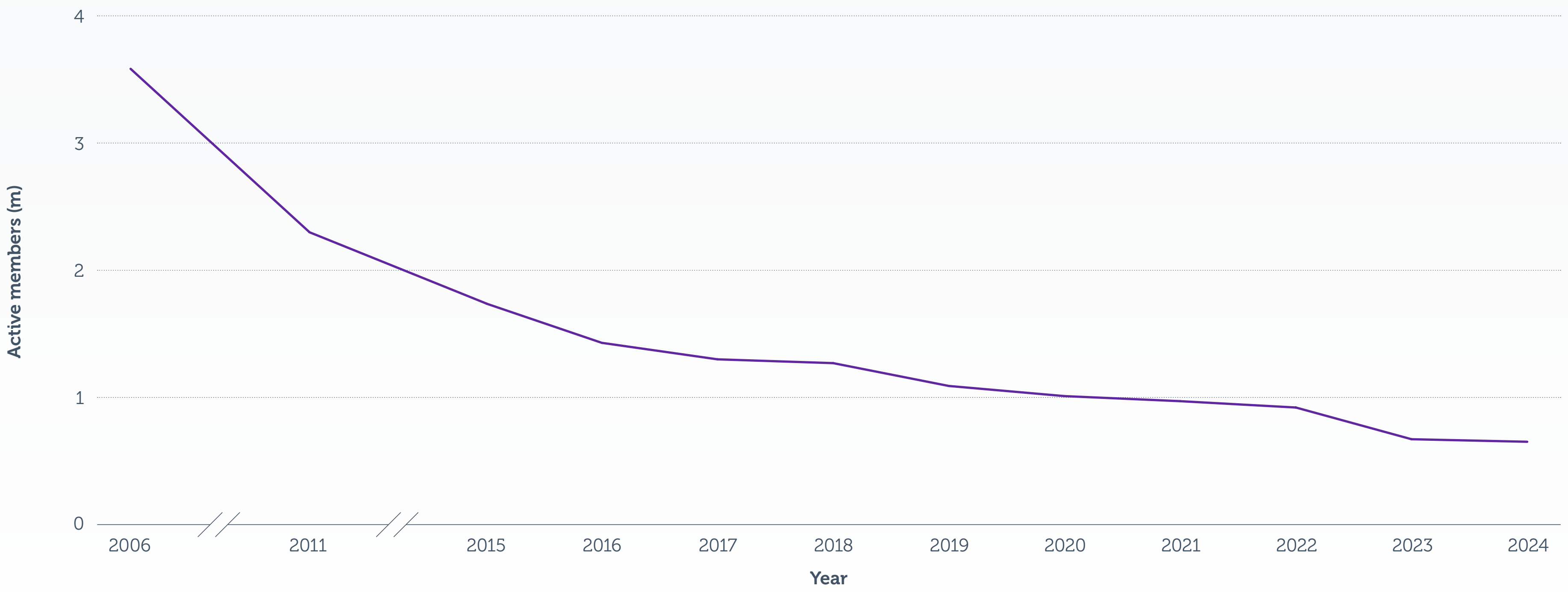


Source: PPF

Note: the percentages may not sum to 100 per cent because of rounding.

Figure 3.9 | Active members in *The Purple Book* datasets

The number of active members has decreased to around 0.7 million, around 20 per cent of the number in the first *Purple Book* dataset in 2006.



Source: PPF

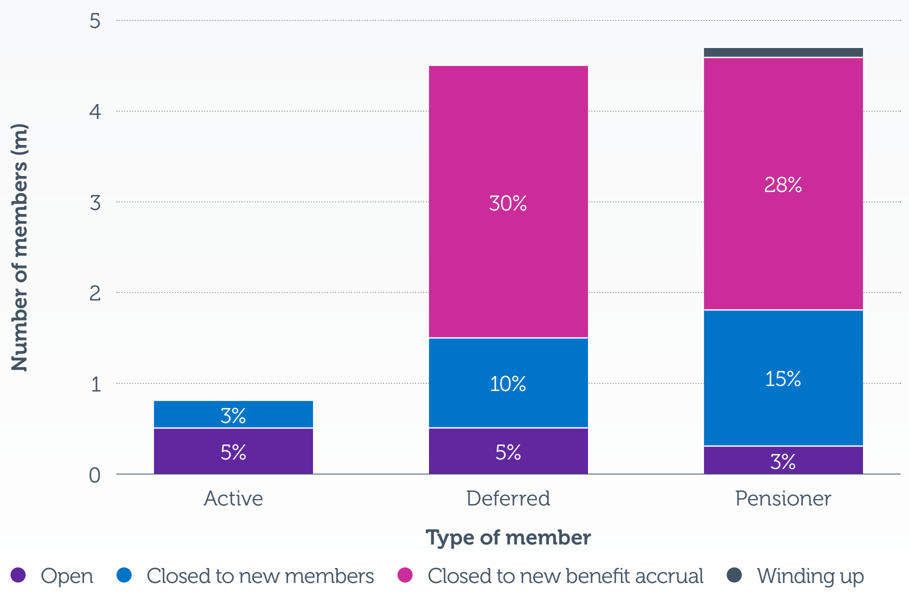
Scheme membership

Figure 3.8 | Number and distribution of members by member type and scheme status as at 31 March 2024

Only eight per cent of members are accruing new benefits.

Number (000s)/%	Open	Closed to new members	Closed to new benefit accrual	Winding up	All
Active members	433.5	226.3	–	–	659.8
	5%	3%	0%	0%	8%
Deferred members	455.0	902.1	2,651.7	37.0	4,045.8
	5%	10%	30%	0%	46%
Pensioners	290.5	1,317.7	2,416.9	46.3	4,071.4
	3%	15%	28%	1%	46%
Total	**1,179.0**	**2,446.1**	**5,068.6**	**83.3**	**8,777.0**
	13%	**28%**	**58%**	**1%**	**100%**

Note: the percentage components may not sum to their totals because of rounding.



Source: PPF

Figure 3.10 | Distribution of member type by scheme membership size

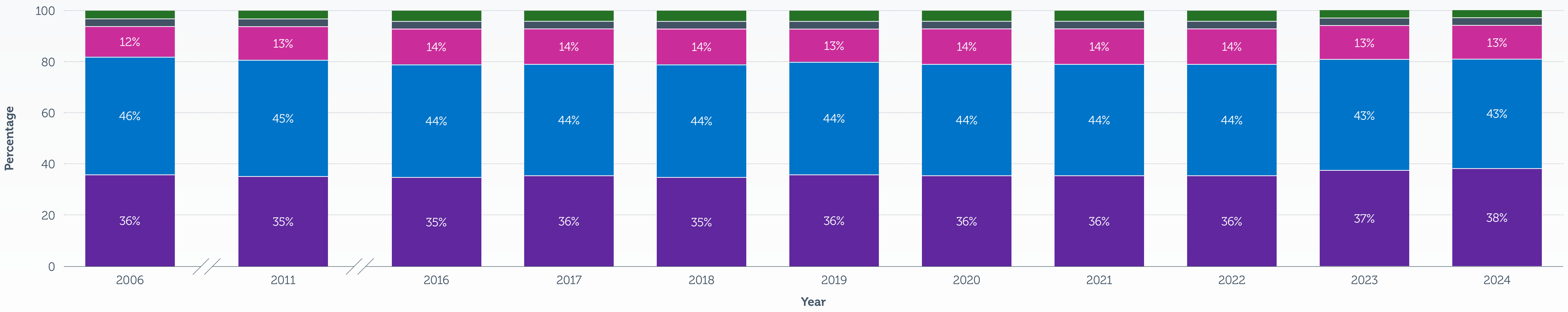
The proportion of active members increases as scheme membership size increases.

Source: PPF

Scheme demographics continued

Figure 3.11 | Proportion of schemes by scheme membership size, by year

The distribution of schemes by scheme membership size has remained relatively stable over time, suggesting that there is little correlation between scheme size and removal from the eligible universe.



● 2 to 99 ● 100 to 999 ● 1,000 to 4,999 ● 5,000 to 9,999 ● 10,000 and over

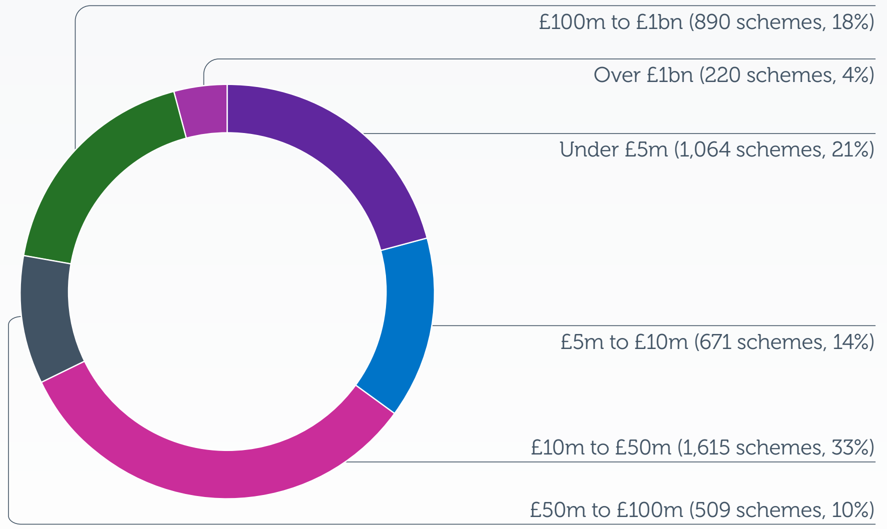
Source: PPF

Note: the percentages may not sum to 100 per cent because of rounding.

Asset size

Figure 3.12 | Distribution of schemes by asset size

78 per cent of schemes have assets of less than £100 million.



● Under £5m ● £5m to £10m ● £10m to £50m ● £50m to £100m ● £100m to £1bn ● Over £1bn

Source: PPF

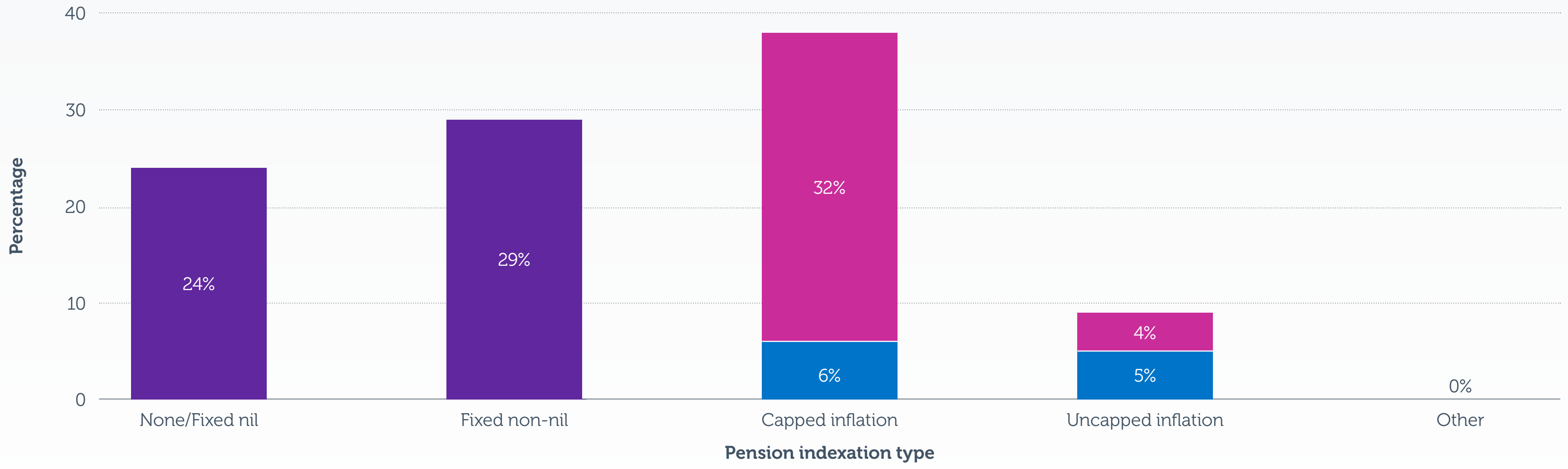
Pension indexation types

The information contained in figures 3.13 and 3.14 is based on scheme return data provided by schemes, where the scheme return specifies that in cases where there is more than one rate of indexation, the rate applying to the largest proportion of protected liabilities should be submitted.

The PPF pays increases in payment to compensation accrued after 5 April 1997. This is based on the Consumer Prices Index (CPI) and is capped at 2.5 per cent a year.

Figure 3.13 | Pension indexation types for scheme benefits accrued before 6 April 1997

More than three quarters of schemes provide indexation on scheme benefits accrued before 6 April 1997.

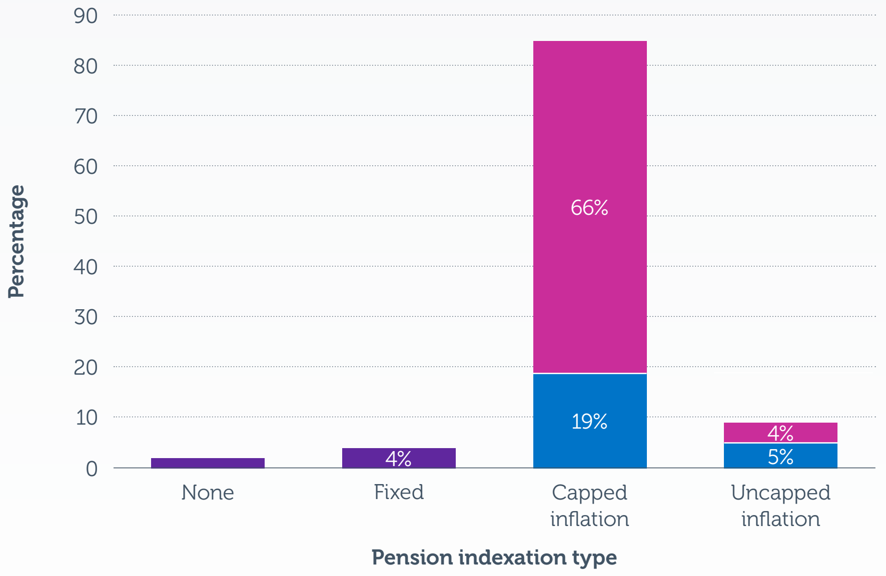


● None/fixed ● CPI-linked ● RPI-linked

Source: PPF

Figure 3.14 | Pension indexation types for scheme benefits accrued after 5 April 1997

Around two thirds of schemes provide indexation of capped inflation on scheme benefits accrued after 5 April 1997. For the vast majority of these schemes, the inflation cap is five per cent a year.



● None/fixed ● CPI-linked ● RPI-linked

Source: PPF

Notes: the schemes with no pension indexation don't have any scheme benefits that were accrued after 5 April 1997, or they are cash balance schemes.

04 Scheme funding

This chapter looks at how well funded schemes are, and trends in scheme funding by scheme size, status, and maturity.

Summary

This chapter covers funding on an s179 basis as at 31 March 2024, which is based on version A11[1] of the s179 assumptions. This is different from last year's *Purple Book*, which used version A10. We process funding information supplied in scheme returns submitted to TPR so that we can estimate the funding ratios at a common date, allowing consistent totals to be used. Specifically, we roll forward the values of assets and liabilities to the effective date of *The Purple Book* from the schemes' s179 valuations.

For *The Purple Book 2024* we have updated our roll-forward methodology used to estimate the asset and liability figures. We are now able to use more granular asset allocation data collected in annual scheme returns by TPR, applying a wider range of relevant market indices in our asset roll-forward calculations. In addition, where previously we did not take account of cashflows in and out of schemes – particularly benefit payments – our calculations now include estimates of these. We have made additional refinements to the estimation of liabilities on a full buy-out measure.

Regardless of these refinements, our roll-forward methodology remains approximate in nature and the modelling necessarily features a number of estimations and judgements. More details of the methodology, and its refinements – including a reconciliation of the impacts of the refinements as at 31 March 2023, are available in the appendix.

In *The Purple Book 2024*, we add Deficit-Reduction Contributions (DRCs) due up to 31 March 2024, as submitted for levy purposes, to the asset values in s179 valuations.

A scheme that is 100 per cent funded on an s179 basis has broadly enough assets to pay an insurance company to take on the scheme with PPF levels of compensation.

In addition, we consider estimated full buy-out funding information in this chapter. We've calculated this using the same valuation assumptions and underlying data as for the s179 calculations. We then make an approximate allowance for the difference between the PPF level of compensation and full scheme benefits.

Some of the statistics summarising these calculations are shown below:

Item	*The Purple Book* 31 March 2024	*The Purple Book* 31 March 2023 restated
Net s179 funding position (£bn)	**219.2 surplus**	206.9 surplus
s179 liabilities (£bn)	**947.9**	1,031.5
Assets (£bn)	**1,167.1**	1,238.4
Aggregate funding ratio:		
s179 basis	**123.1%**	120.1%
Estimated full buy-out basis	**94.4%**	90.3%

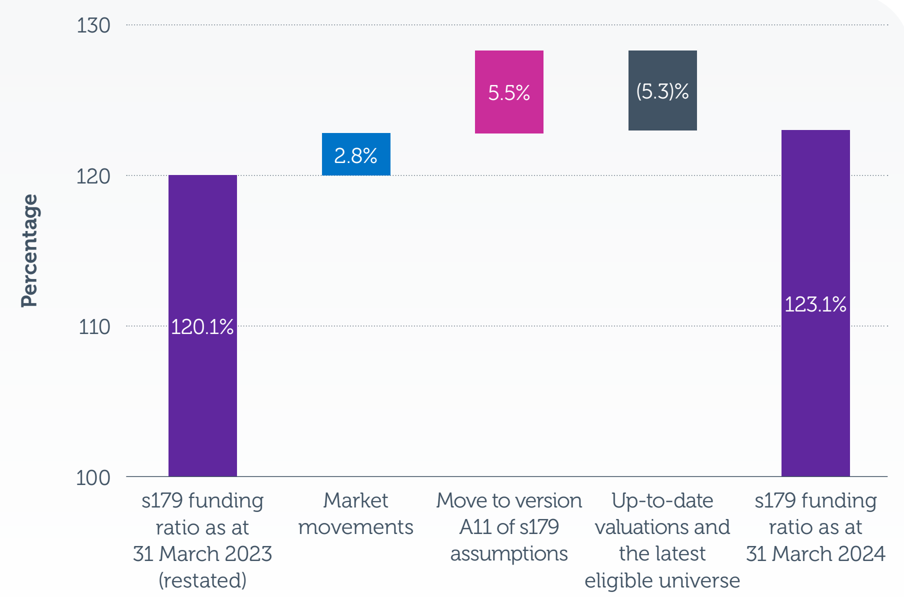
In *The Purple Book 2023* as published, the net s179 funding position was a £358.9 billion surplus, with a corresponding funding ratio aggregate of 134.3 per cent.

The following table sets out how some of the market indicators used to assess and roll forward pension scheme assets and s179 liabilities have changed over the year:

Market indicator	Change over the year to 31 March 2024
10-year fixed-interest gilt yield	+0.42pp
15-year fixed-interest gilt yield	+0.45pp
20-year fixed-interest gilt yield	+0.50pp
5–15-year index-linked gilt yield	+0.50pp
FTSE All-Share Index (TR)	+8.43%
FTSE All-World Ex-UK Index (TR)	+21.44%

pp = percentage point(s).
TR = Total Return.

The change in the aggregate s179 funding ratio over the year (from the restated position as at 31 March 2023) is a result of market movements, a new s179 assumptions version, and new data, as shown in the following chart.



- The 3.0 percentage point increase in the s179 funding ratio over the year to 31 March 2024 can be broken down as follows:
  - A 2.8 percentage point increase from market movements. As well as changes in market yields and indices which, as can be seen from the table above, generally went up over the year, this now incorporates various other items introduced as part of our new roll-forward methodology. This includes estimated cashflows in and out of schemes, actual inflation compared to expected, and the impact of PPF drift[2].
  - An increase in 5.5 percentage points from the change to the new s179 assumptions set A11. This affected liabilities only.
  - A decrease of 5.3 percentage points from adopting the new *Purple Book 2024* dataset, which includes more recent scheme valuations.
- The s179 funding ratio as at 31 March 2024 is some 26 percentage points higher than the 97 per cent disclosed in the first *Purple Book* as at 31 March 2006. Total assets and liability values remain larger in 2024 than 2006 for reasons including:
  - Large increases in assets from increases in equity values (UK and global indices are around 170 per cent and 440 per cent higher in 2024 than 2006, respectively), DRCs paid, and increases in bond values, offset to some extent by schemes that have left the PPF universe, and benefits paid out.
  - Gilt yields at March 2024 are similar to their levels in March 2006. Longer life expectancies means higher liability values but, again, this is offset to some extent by schemes that have left the PPF universe, and benefits paid out.
- The proportions of s179 liabilities relating to pensioners and active members are 55 per cent and 12 per cent, respectively. This is another historical high for pensioners and low for active members, consistent with an ever-maturing DB universe.

Overall funding

Figure 4.1 | Key funding statistics as at 31 March 2024

The net s179 funding position of the schemes in *The Purple Book 2024* dataset as at 31 March 2024 was a surplus of £219.2 billion, corresponding to a funding ratio of 123.1 per cent.

	Funding measure: s179	Funding measure: Estimated full buy-out
Total number of schemes	4,969	4,969
Total assets (£bn)	1,167.1	1,167.1
Total liabilities (£bn)	947.9	1,236.6
Net funding position (£bn)	219.2	-69.5
Aggregate funding ratio	123.1%	94.4%
Number of schemes in deficit	1,299	3,117
Number of schemes in surplus	3,670	1,852
Net funding position for schemes in deficit (£bn)	-20.9	-137.6
Net funding position for schemes in surplus (£bn)	240.1	68.1

Source: PPF

1 More detail of the s179 assumptions is available on our website: https://www.ppf.co.uk/trustees-advisers/valuation-guidance.
2 The definition of PPF drift can be found on page 42 of the glossary.

Scheme funding continued

Figure 4.2 | Current and historical funding figures on an s179 basis

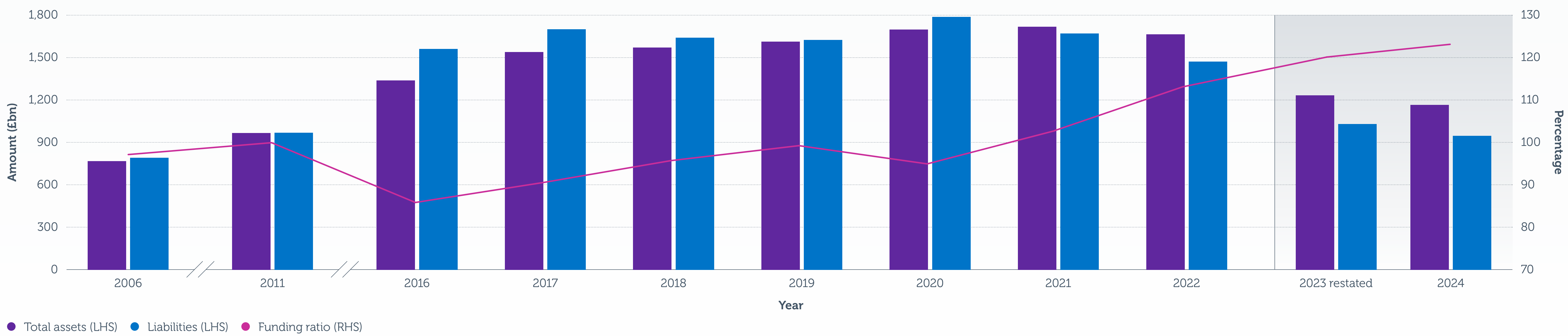
The aggregate s179 funding ratio increased by three percentage points over the year to 31 March 2024, to 123.1 per cent. The deficit of schemes in deficit improved from £34.9 billion to £20.9 billion.

Although general trends are still visible, figures for 2023 and 2024 are not directly comparable with those from earlier years.

			s179 liabilities				
Year	Number of schemes	Total assets (£bn)	Liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Deficit of schemes in deficit (£bn)	Surplus of schemes in surplus (£bn)
2006	7,751	769.5	792.2	-22.7	97.1%	-76.3	53.5
2011	6,432	968.5	969.7	-1.2	99.9%	-78.3	77.1
2016	5,794	1,341.4	1,563.1	-221.7	85.8%	-273.5	51.8
2017	5,588	1,541.1	1,702.9	-161.8	90.5%	-246.7	84.9
2018	5,450	1,573.3	1,643.8	-70.5	95.7%	-187.6	117.1
2019	5,422	1,615.3	1,628.0	-12.7	99.2%	-159.8	147.1
2020	5,318	1,700.6	1,791.3	-90.7	94.9%	-229.1	138.4
2021	5,215	1,720.7	1,673.8	46.9	102.8%	-128.5	175.3
2022	5,131	1,666.9	1,473.9	193.0	113.1%	-61.1	254.1
2023 restated	5,051	1,238.4	1,031.5	206.9	120.1%	-34.9	241.8
2024	4,969	1,167.1	947.9	219.2	123.1%	-20.9	240.1

Note: the component figures may not sum to the total because of rounding.

The aggregate s179 funding ratio as at 31 March 2024 is around 26 percentage points higher than as at 31 March 2006.



Note: the component figures may not sum to the totals because of rounding.

Scheme funding continued

Figure 4.3 | Current and historical funding figures on an estimated full buy-out basis

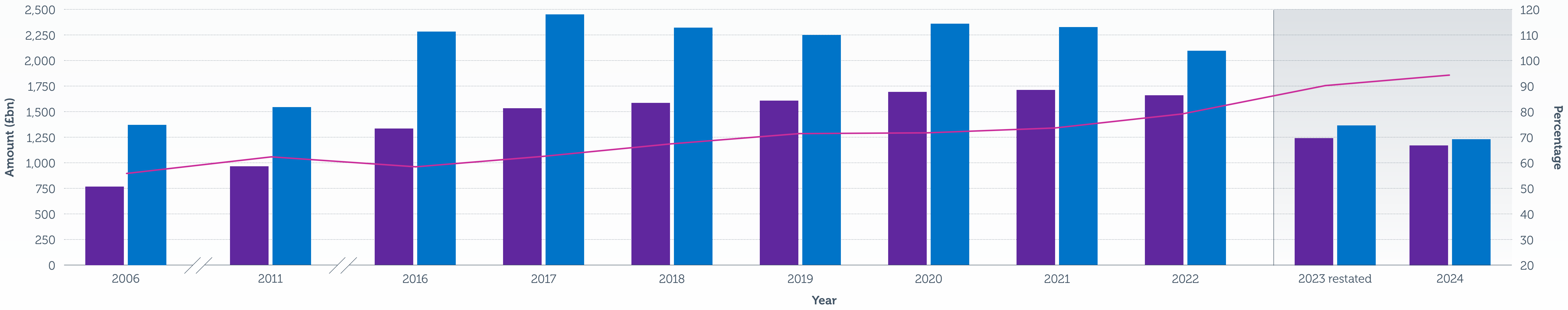
The aggregate estimated full buy-out funding ratio has increased by over four percentage points, to 94.4 per cent.

Although general trends are still visible, figures for 2023 and 2024 are not directly comparable with those from earlier years.

Year	Total assets (£bn)	Estimated full buy-out basis: Liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio
2006	769.5	1,376.7	-607.2	55.9%
2011	968.5	1,551.8	-583.3	62.4%
2016	1,341.4	2,293.1	-951.7	58.5%
2017	1,541.1	2,461.7	-920.6	62.6%
2018	1,573.3	2,332.0	-758.7	67.5%
2019	1,615.3	2,260.3	-644.9	71.5%
2020	1,700.6	2,369.1	-668.5	71.8%
2021	1,720.7	2,335.8	-615.3	73.7%
2022	1,666.9	2,105.3	-438.4	79.2%
2023 restated	1,238.4	1,371.7	-133.3	90.3%
2024	1,167.1	1,236.6	-69.5	94.4%

Note: the component figures may not sum to the total because of rounding.

The s179 funding ratio has increased over time from 97.1 per cent as at 31 March 2006 to 123.1 per cent as at 31 March 2024. Similarly, the estimated full buy-out funding ratio increased over the same period, from 55.9 per cent to 94.4 per cent.



Source: PPF

Analysis of funding by scheme membership size

Figure 4.4 | s179 funding ratios by size of scheme membership as at 31 March 2024

The best funded schemes sit at opposite ends of the size spectrum. An aggregate s179 funding ratio of 125.7 per cent for schemes with more than 10,000 members and 129.9 per cent for schemes with fewer than 100 members.

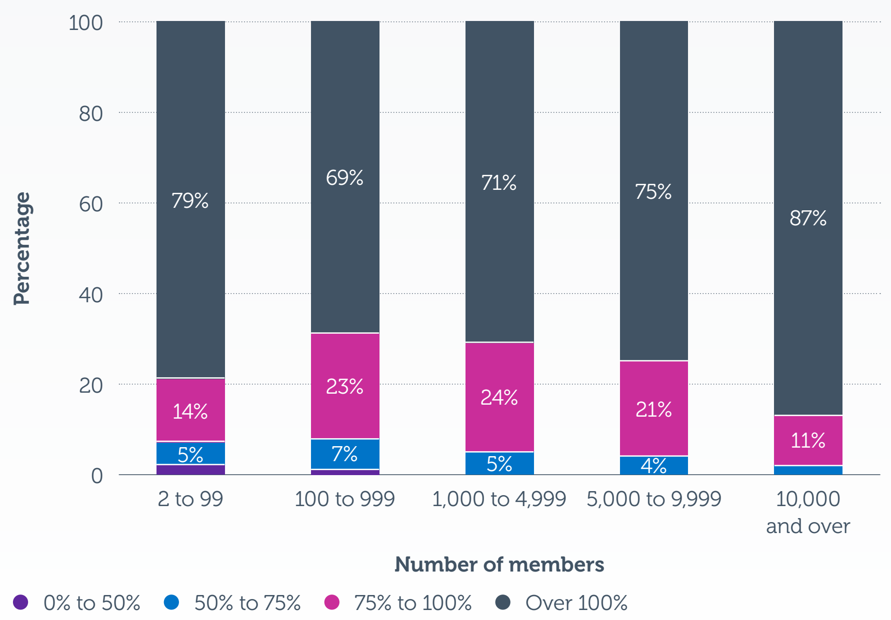
Number of members	Number of schemes	Total assets (£bn)	s179 liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Simple average funding ratio*
2 to 99	1,852	12.6	9.7	2.9	129.9%	128.4%
100 to 999	2,144	99.7	85.7	14.0	116.3%	116.0%
1,000 to 4,999	661	193.7	163.0	30.7	118.8%	115.8%
5,000 to 9,999	150	151.4	124.7	26.7	121.4%	118.9%
10,000 and over	162	709.7	564.8	144.9	125.7%	126.9%
Total	**4,969**	**1,167.1**	**947.9**	**219.2**	**123.1%**	**121.0%**

Source: PPF

* Whereas aggregate funding ratios are determined by comparing the total assets and liabilities for all schemes, the simple average funding ratio is the average of all of the schemes' individual funding ratios. To avoid distortions, we excluded 53 schemes with funding ratios over 200 per cent (on an estimated full buy-out measure) from the simple averages. These schemes had total assets of £3.7 billion.

Figure 4.5 | Distribution of s179 funding ratios by size of scheme membership as at 31 March 2024

Schemes with between 100 and 9,999 members have the largest proportion of funding ratios below 100%.



Source: PPF

Scheme funding continued

Figure 4.6 | Estimated full buy-out funding ratios by size of scheme membership as at 31 March 2024

The very largest and very smallest schemes are the best funded on an estimated full buy-out measure.

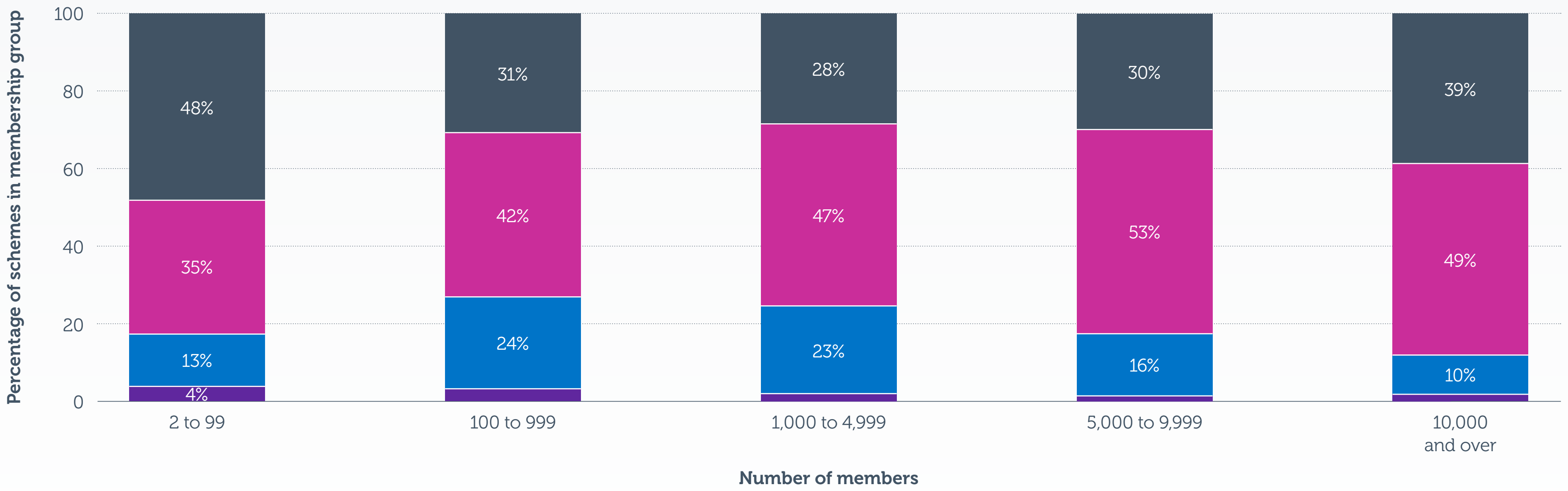
Number of members	Number of schemes	Total assets (£bn)	Estimated full buy-out liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Simple average funding ratio*
2 to 99	1,852	12.6	12.6	0	100.0%	99.9%
100 to 999	2,144	99.7	112.3	-12.6	88.8%	89.6%
1,000 to 4,999	661	193.7	212.0	-18.3	91.4%	89.7%
5,000 to 9,999	150	151.4	161.0	-9.6	94.0%	92.6%
10,000 and over	162	709.7	738.7	-29.0	96.1%	96.7%
Total	**4,969**	**1,167.1**	**1,236.6**	**-69.5**	**94.4%**	**93.7%**

Source: PPF

* Whereas aggregate funding ratios are determined by comparing the total assets and liabilities for all schemes, the simple average funding ratio is the average of all of the schemes' individual funding ratios. To avoid distortions, we excluded 53 schemes with funding ratios over 200 per cent (on an estimated full buy-out measure) from the simple averages. These schemes had total assets of £3.7 billion.

Figure 4.7 | Distribution of estimated full buy-out funding ratios by size of scheme membership as at 31 March 2024

Over 35 per cent of schemes are more than 100% funded on an estimated full buy-out measure, with some variation by number of members.



● 0% to 50% ● 50% to 75% ● 75% to 100% ● Over 100%

Source: PPF

Analysis of funding by scheme maturity

Maturity is measured here by the percentage of the scheme liabilities relating to pensioners.

Figure 4.8 | Analysis of s179 funding ratios by scheme maturity as at 31 March 2024

The least mature schemes have an aggregate s179 funding ratio that is around 20 percentage points higher than the most mature schemes.

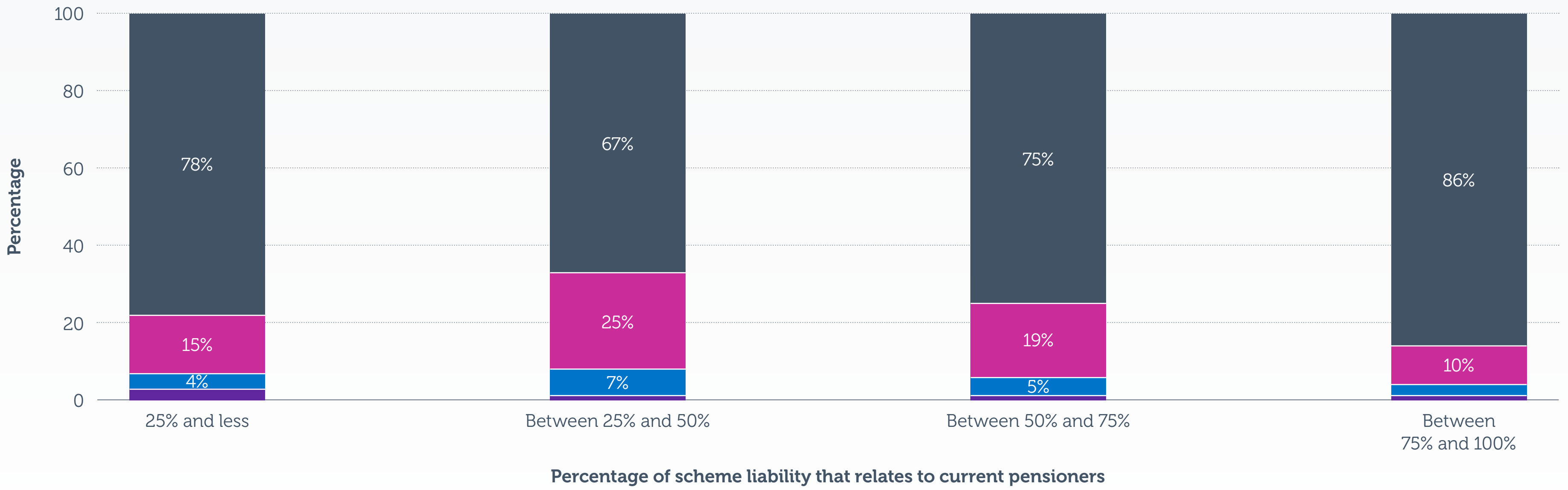
Proportion of s179 liabilities relating to pensioners	Number of schemes	Total assets (£bn)	s179 liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Simple average funding ratio*
25% and less	399	36.3	25.1	11.2	144.6%	126.7%
Between 25% and 50%	1,597	399.7	327.8	71.8	121.9%	115.5%
Between 50% and 75%	2,348	639.6	521.8	117.8	122.6%	120.3%
Between 75% and 100%	625	91.5	73.2	18.3	125.0%	134.8%
Total	**4,969**	**1,167.1**	**947.9**	**219.2**	**123.1%**	**121.0%**

Source: PPF

* Whereas aggregate funding ratios are determined by comparing the total assets and liabilities for all schemes, the simple average funding ratio is the average of all of the schemes' individual funding ratios. To avoid distortions, we excluded 53 schemes with funding ratios over 200 per cent (on an estimated full buy-out measure) from the simple averages. These schemes had total assets of £3.7 billion.

Figure 4.9 | Distribution of funding ratios on an s179 basis by scheme maturity as at 31 March 2024

Over 70 per cent of schemes are overfunded on an s179 basis, regardless of scheme maturity.



● 0% to 50% ● 50% to 75% ● 75% to 100% ● Over 100%

Source: PPF

Scheme funding continued

Analysis of funding by scheme status

Figure 4.10 | Analysis of s179 funding ratios by scheme status as at 31 March 2024

There is little variation by scheme status in the aggregate s179 funding ratio (except for schemes that are winding up).

Status	Number of schemes	Total assets (£bn)	Liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Simple average funding ratio*
Open	192	148.0	120.3	27.7	123.0%	118.5%
Closed to new members	966	405.6	335.0	70.6	121.1%	124.0%
Closed to new benefit accrual	3,656	602.6	484.6	118.0	124.3%	120.0%
Winding up	155	10.9	8.0	2.9	136.3%	129.8%
Total	**4,969**	**1,167.1**	**947.9**	**219.2**	**123.1%**	**121.0%**

Source: PPF

* Whereas aggregate funding ratios are determined by comparing the total assets and liabilities for all schemes, the simple average funding ratio is the average of all of the schemes' individual funding ratios. To avoid distortions, we excluded 53 schemes with funding ratios over 200 per cent (on an estimated full buy-out measure) from the simple averages. These schemes had total assets of £3.7 billion.

Figure 4.12 | Analysis of estimated full buy-out funding ratios by scheme status as at 31 March 2024

Open schemes are around 10 percentage points better funded than closed schemes, as measured by the aggregate estimated full buy-out funding ratio.

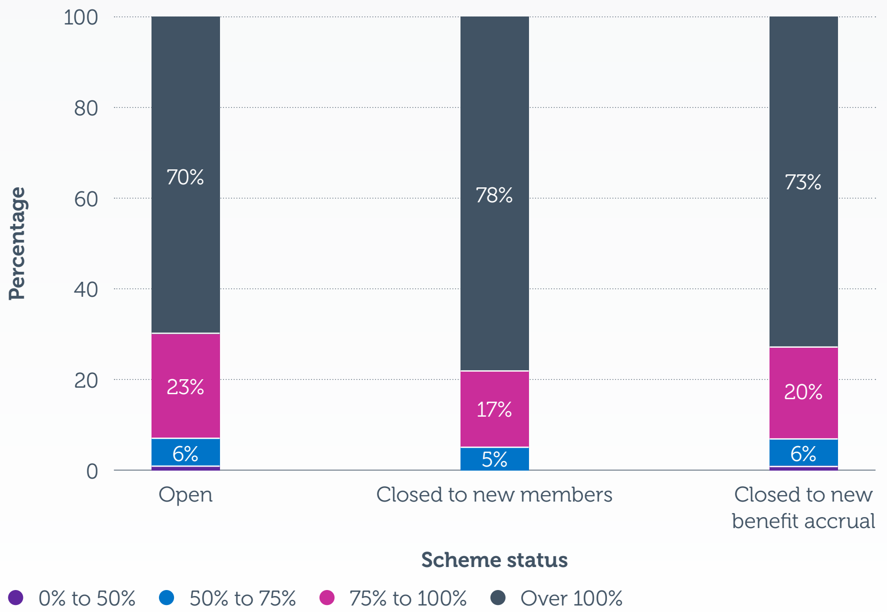
Status	Number of schemes	Total assets (£bn)	Liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Simple average funding ratio*
Open	192	147.9	144.7	3.2	102.2%	95.8%
Closed to new members	966	405.7	440.8	-35.1	92.0%	96.8%
Closed to new benefit accrual	3,656	602.6	640.5	-37.9	94.1%	92.5%
Winding up	155	10.9	10.6	0.3	102.8%	100.7%
Total	**4,969**	**1,167.1**	**1,236.6**	**-69.5**	**94.4%**	**93.7%**

Source: PPF

* Whereas aggregate funding ratios are determined by comparing the total assets and liabilities for all schemes, the simple average funding ratio is the average of all of the schemes' individual funding ratios. To avoid distortions, we excluded 53 schemes with funding ratios over 200 per cent (on an estimated full buy-out measure) from the simple averages. These schemes had total assets of £3.7 billion.

Figure 4.11 | Distribution of schemes by s179 funding ratios within scheme status groups as at 31 March 2024

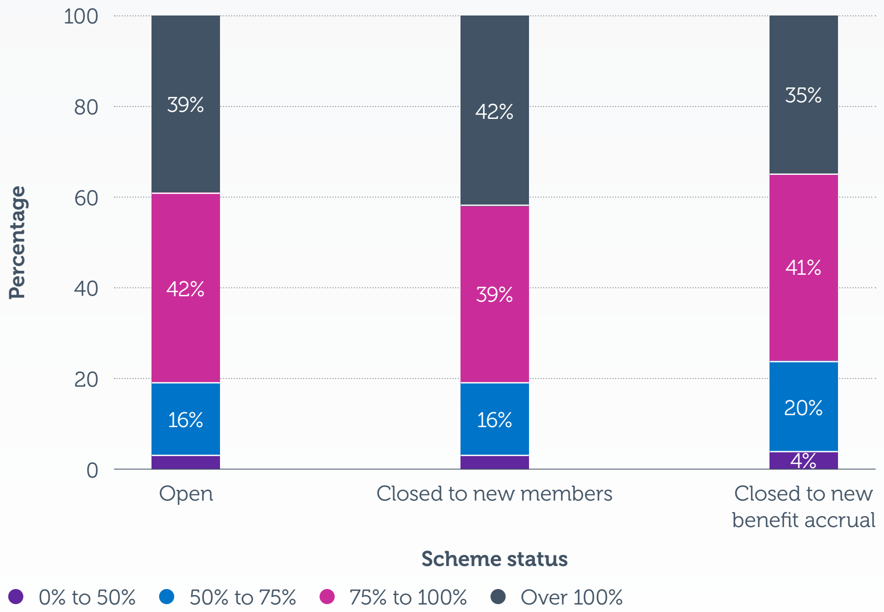
Although on average schemes closed to new members are slightly worse funded than schemes of other status types, they have the highest proportions of schemes that are over 100% funded.



Source: PPF

Figure 4.13 | Distribution of schemes by estimated full buy-out funding ratios within scheme status groups as at 31 March 2024

Over 35 per cent of schemes are overfunded on an estimated full buy-out basis, regardless of scheme maturity.



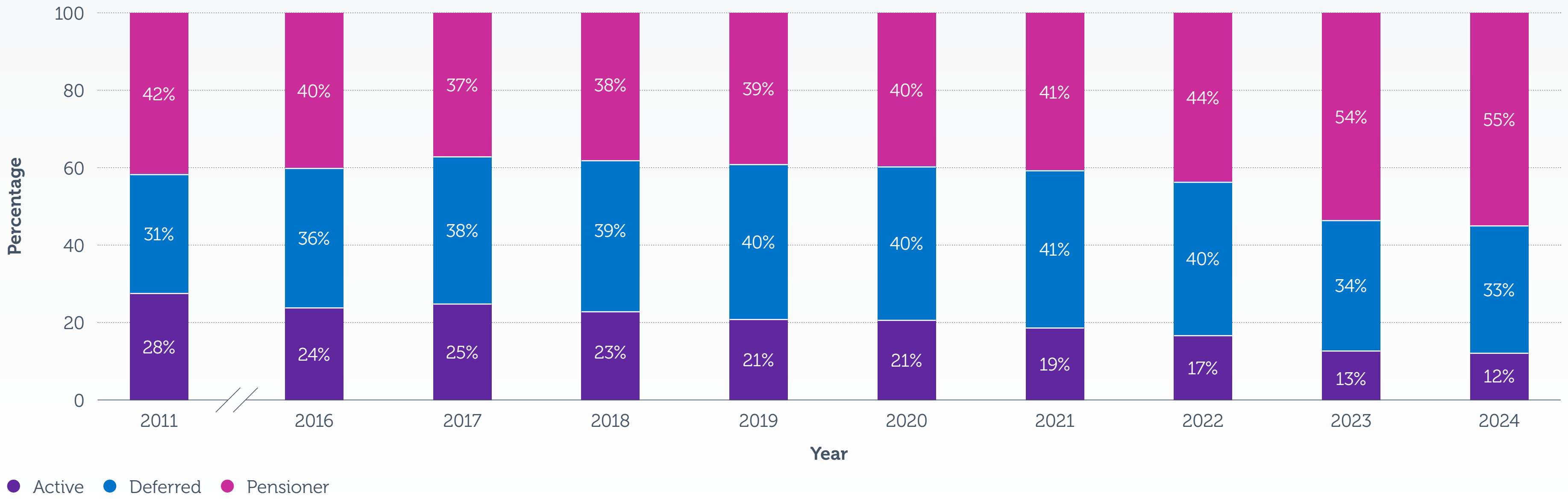
Source: PPF

Note: the percentages in each column may not sum to 100 per cent because of rounding.

Proportion of s179 liabilities by member status

Figure 4.14 | s179 liabilities by member status in current and historical *Purple Book* datasets

Liability proportions continue to grow for pensioners and decrease for active members.



Source: PPF

Note: the percentages in each column may not sum to 100 per cent because of rounding.

05 Funding history and sensitivities

This chapter shows some history of s179 funding, and looks at factors affecting scheme funding levels, including changes in equity prices, gilt yields, and life expectancy.

Summary

- This chapter shows how the funding of DB schemes and markets has changed since 2006, and how the funding of DB schemes at 31 March 2024 would change as a result of plausible changes in markets and life expectancy.
- Some figures in this chapter contain restated numbers for 2023, which have been updated to reflect our new roll-forward methodology mentioned in Chapter 04 (Scheme funding).

The following sections cover:

- The historical changes in s179 scheme funding since 2006. The series in this section take the estimated funding position at 31 March in previous years' editions of *The Purple Book*. For 2024 and 2023 restated, this is under our new roll-forward methodology as mentioned in Chapter 04 (Scheme funding) and the appendix.
- Various funding sensitivities. All of these are on an s179 basis, taking the funding position as at 31 March 2024 as the base.

Change in s179 funding position over time

- Both the historical net funding position and funding ratio had been broadly trending downwards between March 2006 and August 2016. This trend has subsequently reversed and both measures are now higher than the levels they were as at 31 March 2006, with a net funding position of a £219.2 billion surplus as at 31 March 2024.
- The proportion of schemes in deficit on an s179 basis reached 26 per cent in March 2024. This is five percentage points lower than the 31 per cent at March 2023 under our new roll-forward methodology, which was 15 percentage points higher than the 16 per cent stated in *The Purple Book 2023* as published.

Funding sensitivities as at 31 March 2024

- A 0.1 percentage point (10 basis point) rise in both nominal and real gilt yields decreases the 31 March 2024 net funding position by £2 billion from £219.2 billion to £217.2 billion. A 2.5 per cent rise in equity prices would increase the net funding position by £5.5 billion.
- A 0.1 percentage point (10 basis point) reduction in both nominal and real gilt yields raises aggregate scheme liabilities by 1.3 per cent and raises aggregate scheme assets by 1.3 per cent. A 2.5 per cent increase in equity markets increases scheme assets by 0.5 per cent.
- If pension scheme members were to live two years longer than expected, on average, s179 liabilities would increase by £57.8 billion, or 6.1 per cent.

Historical changes in s179 scheme funding since 2006

The estimated funding position of the universe of schemes can change over time owing to a number of factors including financial markets, actuarial assumptions, the decline in the number of DB schemes, and sponsoring employers' special contributions. The historical series in this section take the estimated funding position at 31 March from previous editions of *The Purple Book* – except for 31 March 2023 which we have restated. The monthly profiles between end-March of one year and end-February of the next are obtained by rolling forward the assets and liabilities using movements in nominal and real gilt yields and equity markets.

Figure 5.1 | Historical s179 aggregate funding ratio and net funding position of pension schemes in *The Purple Book* datasets

The aggregate s179 funding ratio and net funding position have both had a steep increase since their low points in 2016.

Although general trends are still visible, figures for 2023 and 2024 are not directly comparable with those from earlier years.

Source: PPF

Figure 5.2 | Historical movements in assets and s179 liabilities of schemes in *The Purple Book* datasets

There has been a general upward trend in both assets and liabilities since 2006, although liabilities have fallen since historical highs in 2020.

Although general trends are still visible, figures for 2023 and 2024 are not directly comparable with those from earlier years.

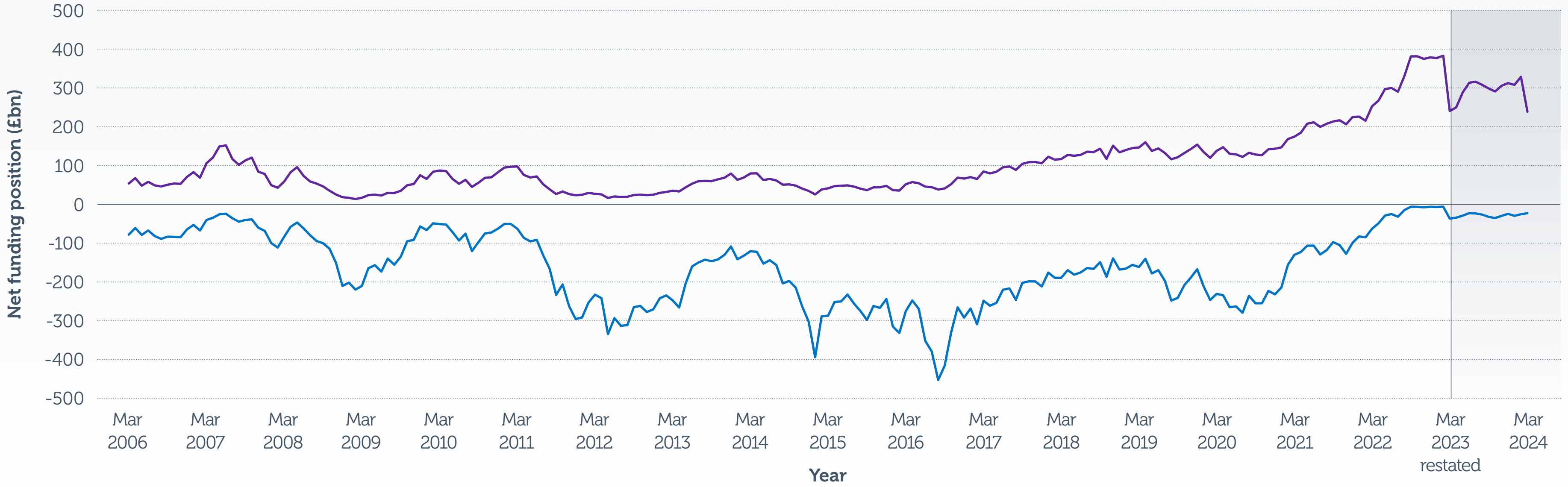
Source: PPF

Funding history and sensitivities continued

Figure 5.3 | Historical aggregate s179 funding position for schemes in deficit and surplus

The s179 deficit of schemes in deficit was at its largest in August 2016 at £451 billion. At 31 March 2024 this deficit was around £21 billion.

Although general trends are still visible, figures for 2023 and 2024 are not directly comparable with those from earlier years.

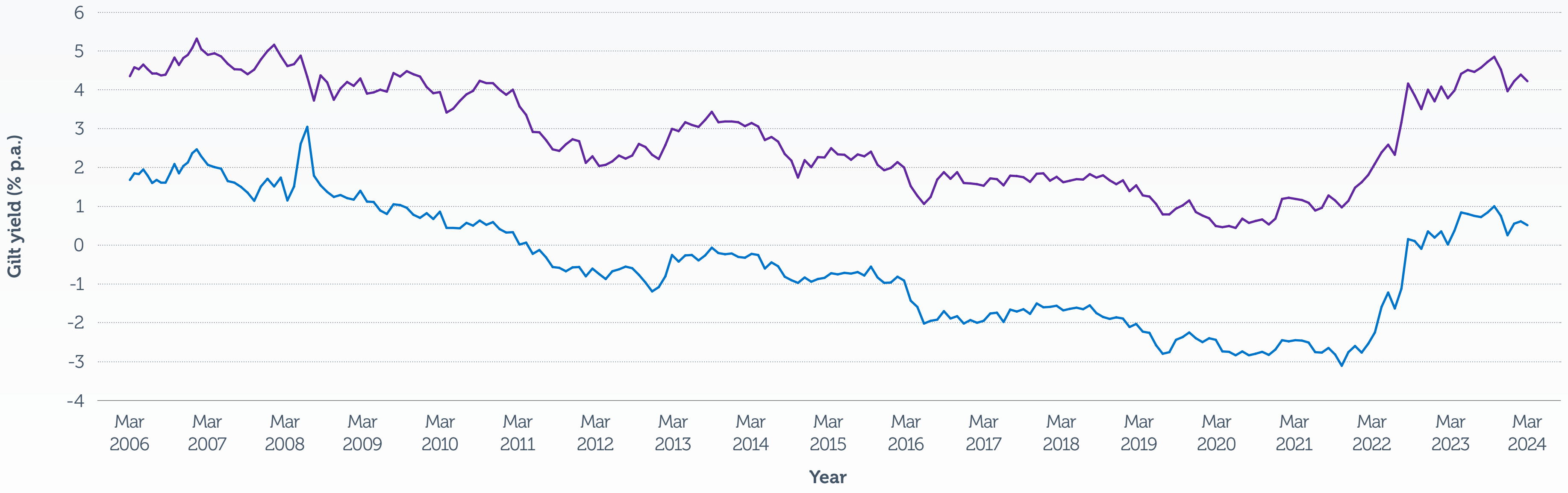


● Schemes in surplus ● Schemes in deficit

Source: PPF

Figure 5.5 | Movements in gilt yields

Gilt yields have increased since their all-time lows in March 2020, and in March 2024 fixed-interest gilt yields were at similar levels to March 2006.



● 15-year fixed-interest gilt yield ● 5–15-year index-linked gilt yield

Source: LSEG

Figure 5.4 | Historical percentage of schemes in deficit each month in *The Purple Book* datasets*

In 2009, nearly 90 per cent of schemes were in deficit. In 2024, less than 30 per cent of schemes are.

Although general trends are still visible, figures for 2023 and 2024 are not directly comparable with those from earlier years.

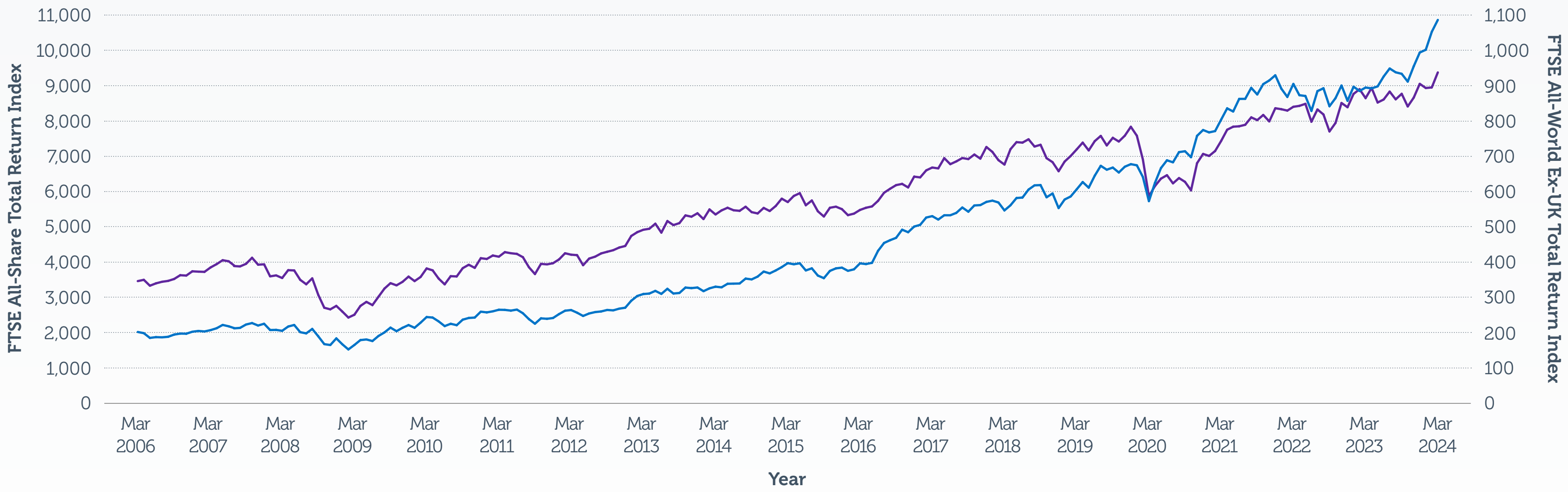
Source: PPF

* And the PPF 7800 index for the months in between *Purple Books*.

From time to time, we make changes to the actuarial assumptions used to value schemes on an s179 measure. The most recent change was made in May 2023 and implemented in the end of May 2023 PPF 7800 Index. This served to reduce the number of schemes in deficit by 129 (2.6 per cent of the number of schemes in the universe).

Figure 5.6 | Movements in equity indices

The FTSE All-Share and All-World Ex-UK Total Return Indices have recovered from their sharp declines in March 2020 and have reached historical highs at various points in the years since.



● FTSE All-Share Total Return Index (LHS) ● FTSE All-World Ex-UK Total Return Index (RHS)

Source: LSEG

Funding history and sensitivities continued

Funding sensitivities: rules of thumb

Funding ratios are sensitive to movements in financial markets, with equity and gilt prices in particular having a major impact upon scheme assets, and gilt yields affecting liability values. This section shows the effect on scheme funding positions of changes in equity and gilt markets. The impacts of a change of a 7.5 per cent rise in equity prices and a 0.3 percentage point increase in gilt yields have been accurately calculated and then the rest of the results have been calculated by pro-rating these two impacts.

The sensitivities do not take into account the use of derivative instruments to hedge changes in interest rates, inflation, equity levels, or life expectancy – other than to the extent these are accounted for in the asset allocations in scheme returns.

Figure 5.7 | Impact of changes in gilt yields and equity prices on s179 funding positions from a base net funding position of £219.2 billion as at 31 March 2024

Small changes in gilt yields have a slightly smaller impact on s179 funding positions than small changes in equity prices.

Assets less s179 liabilities (£ billion)							
Movement in equity prices	Movement in gilt yields						
	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp
7.5%	243.2	240.4	237.9	235.6	233.5	231.7	230.1
5.0%	237.8	235.0	232.4	230.1	228.1	226.2	224.6
2.5%	232.3	229.6	227.0	224.7	222.6	220.8	219.2
0.0%	226.9	224.1	221.6	**219.2**	217.2	215.3	213.7
-2.5%	221.5	218.7	216.1	213.8	211.7	209.9	208.3
-5.0%	216.0	213.2	210.7	208.4	206.3	204.4	202.8
-7.5%	210.6	207.8	205.2	202.9	200.8	199.0	197.4

Source: PPF

A 0.1 percentage point rise in both nominal and real gilt yields would have decreased the end-March 2024 s179 net funding position by £2 billion from £219.2 billion (bold) to £217.2 billion (shaded). That's less than the positive £5.5 billion impact of a 2.5 per cent increase in equity prices (shaded).

Figure 5.8 | Impact of changes in gilt yields and equity prices on assets from a base of 100 as at 31 March 2024

Small changes in gilt yields have a slightly larger impact on assets than small changes in equity prices.

Assets relative to a base of 100							
Movement in equity prices	Movement in gilt yields						
	-0.3pp	-0.2pp	-0.1pp	0.0pp	0.1pp	0.2pp	0.3pp
7.5%	105.3	104.0	102.7	101.4	100.1	98.9	97.7
5.0%	104.9	103.5	102.2	100.9	99.7	98.4	97.2
2.5%	104.4	103.1	101.8	100.5	99.2	98.0	96.7
0.0%	103.9	102.6	101.3	**100.0**	98.7	97.5	96.3
-2.5%	103.5	102.1	100.8	99.5	98.3	97.0	95.8
-5.0%	103.0	101.7	100.4	99.1	97.8	96.6	95.3
-7.5%	102.5	101.2	99.9	98.6	97.3	96.1	94.9

Source: PPF

A 2.5 per cent increase in equity prices would raise scheme assets by 0.5 per cent (shaded). A 0.3 percentage point decrease in gilt yields would increase scheme assets by 3.9 per cent (shaded).

Figure 5.9 | Impact of changes in gilt yields on s179 liabilities as at 31 March 2024

A 0.1 percentage point movement in gilt yields would impact s179 liabilities by 1.3 per cent.

Impact on s179 liabilities						
	Movement in both nominal and real gilt yields					
	-0.3pp	-0.2pp	-0.1pp	0.1pp	0.2pp	0.3pp
Percentage change	4.0%	2.7%	1.3%	-1.3%	-2.7%	-4.0%

Source: PPF

Figure 5.10 | Impact of changes in nominal or real gilt yields on s179 liabilities as at 31 March 2024 (base = £947.9 billion)

As at 31 March 2024, the s179 liabilities were over four times as sensitive to changes in nominal yields as to changes in real yields.

s179 liabilities (£ billion)				
	Change in nominal yields		Change in real yields	
	-0.1pp	0.1pp	-0.1pp	0.1pp
£ billions	958.6	937.0	950.1	945.6
Percentage change	1.1%	-1.1%	0.2%	-0.2%

Source: PPF

Note: s179 liabilities are assessed using a combination of various nominal and real gilt yields. Whereas figure 5.9 shows the impact of universal stresses across both nominal and real yields, figure 5.10 stresses the nominal and real gilt yields separately. It is not surprising that, for s179 liabilities, interest rate sensitivity is significantly higher for nominal yields versus real yields given the cap on annual increases to post-97-accrued compensation and the absence of increases to pre-97-accrued compensation.

Figure 5.11 | Impact of changes in life expectancy assumptions on s179 liabilities as at 31 March 2024 (base = £947.9 billion)

If pension scheme members were to live two years longer than expected, on average, s179 liabilities would increase by around £57.8 billion, or 6.1 per cent.

Impact on s179 liabilities		
	s179 liabilities (£bn)	% change from base
Age rating +2 years	888.3	-6.3%
Age rating -2 years	1,005.7	6.1%

Source: PPF

Note: the impact of increased length of life has been approximated by age rating down by two years – that is, replacing the life expectancy assumptions for each individual by an individual currently two years younger.

06 Insolvency risk

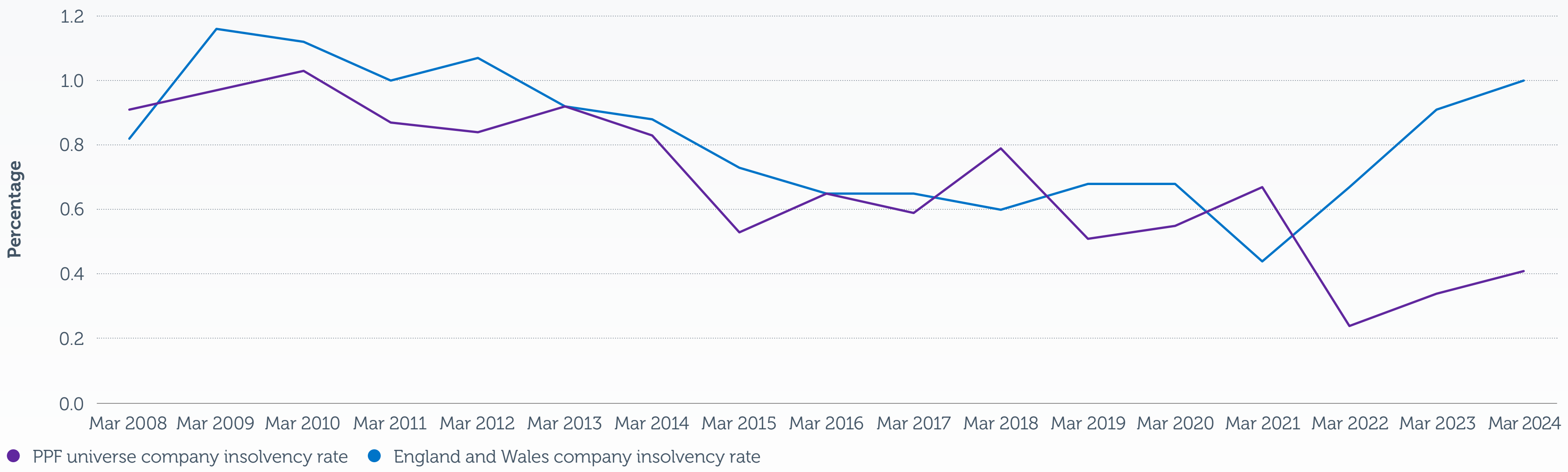
This chapter looks at the rate of insolvencies in DB scheme sponsors in the PPF universe, compared with the overall company insolvency rate in England and Wales, and insolvency probabilities by scheme size.

Summary

- This chapter shows the annual insolvency rate for employers in the PPF universe and companies in England and Wales. It also shows the number of England and Wales company insolvencies compared with the rate of UK real GDP growth. Finally, it shows a proxy for insolvency risk over the next year, for different scheme sizes.
- The average insolvency rate in the PPF universe has increased from 0.34 per cent to 0.41 per cent over the year to 31 March 2024.
- The average annual insolvency rate of companies in England and Wales increased by 0.09 percentage points to 1.00 per cent over the year to 31 March 2024.
- UK real GDP growth was 0.3 per cent in Q1 2024, as it was in Q1 2023 too.
- In aggregate, larger schemes tend to have a lower insolvency risk than those with fewer members.

Figure 6.1 | Annual insolvency rates*

This year has continued to reverse the general downward trend for the rate of insolvencies that we saw between the 2008/09 financial crisis and 2021/22.

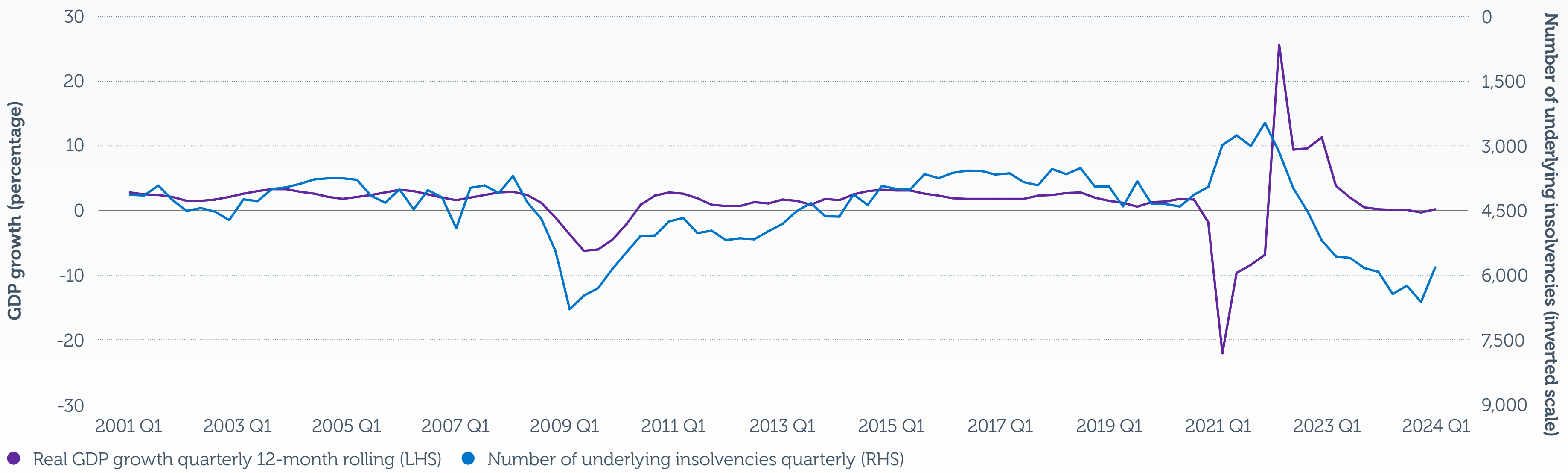


Source: PPF, Office for National Statistics (ONS)

* The England and Wales company insolvency rate has been calculated based on the 2.5 million companies in England and Wales that are VAT/PAYE registered with HMRC. Insolvencies in England and Wales account for around 95 per cent of UK insolvencies. In comparison, there are around 12,500 companies in the PPF universe, or around 11,000 if companies that participate in multiple schemes are only counted once.

Figure 6.2 | England and Wales underlying company insolvencies (seasonally adjusted)

Both real GDP growth and the number of insolvencies have been relatively stable since Q1 2022, especially compared to the very volatile two or three prior years.



Note: as the ONS and UK Insolvency Service revise their methodology and receive new data, the figures for previous time periods may be updated.

Source: ONS and the UK Insolvency Service

Figure 6.3 | Average levy rates of sponsoring companies by scheme membership size*

Schemes with the fewest members tend to have sponsors with higher levy rates.

* We've used schemes' risk-based levy rates, as used in calculating the PPF levy, as a proxy for the insolvency probabilities.

Source: PPF

07 Asset allocation

This chapter looks at trends in the types of assets DB schemes invest in.

Summary

- Some figures in this chapter contain restated numbers for 2023, where affected by our new roll-forward methodology mentioned in Chapter 04 (Scheme funding). The impacts here are second order and so figures in this chapter remain directly comparable over time.
- This chapter contains information on how DB schemes have invested their assets since 2006 and how asset allocations in *The Purple Book 2024* dataset vary according to different scheme characteristics, such as scheme size.
- Asset allocation information is now submitted in scheme returns according to a three-tier system. Tiers 2 and 3 submit a more granular asset breakdown than tier 1 schemes do.
- Around 98 per cent of schemes' asset allocations in *The Purple Book 2024* dataset were at a date between October 2022 and March 2024. Schemes in tiers 2 and 3 made up 98 per cent of schemes' assets, but only 52 per cent of schemes.
- Since the previous *Purple Book*, the aggregate proportion of schemes' assets invested in equities fell from 18.8 per cent (2023 restated) to 15.5 per cent and the proportion in bonds rose from 66.5 per cent (2023 restated) to 69.8 per cent. The category 'bonds' represents those physically held as well as other investments whose economic characteristics resemble bonds, such as LDI.
- Within bonds, the proportions held in government fixed-interest, corporate, and index-linked bonds are 19.5 per cent, 35.0 per cent, and 45.5 per cent, respectively. These proportions are similar to the prior year's.
- Government fixed-interest and index-linked bonds are mostly long-dated. Corporate bond proportions are balanced between UK and overseas investment grade, and between short/medium and long-dated.
- Larger schemes tend to have higher proportions of bonds in index-linked bonds than smaller schemes.
- Within equities, the proportion invested in UK equities continued to fall, but over the last year there was a sharper drop in the proportion invested in overseas equities, in favour of private or unquoted equity, whose proportion has risen to over 40 per cent. Larger schemes tend to hold lower proportions in UK equities and higher proportions in unquoted/private equities.
- The majority of total assets is invested in equities and bonds. The proportions in bonds and negative cash decrease as funding ratio (category) increases.
- As scheme maturity increases, the proportion of assets invested in bonds and annuities increases.
- Open schemes have a lower proportion of bonds, and a higher proportion of equities, than closed schemes.

Asset data

We do not adjust asset allocations submitted by schemes for market movements. Most of this chapter uses weighted average asset allocations. For example, the weighted average share of equities is the total amount of equities across all schemes divided by the total amount of assets across all schemes. The simple average takes the arithmetic average of each scheme's proportion of its assets held in equities.

Figure 7.1 | Distribution of schemes and assets by tier and asset allocation date*

Around 98 per cent of schemes provided an asset allocation with an effective date between October 2022 and March 2024.

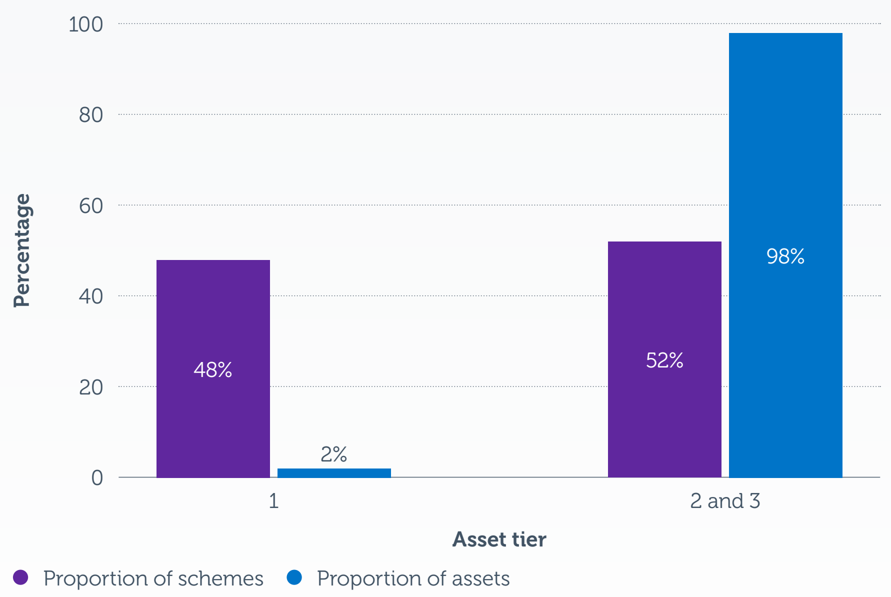
Asset allocation dated between	Number of schemes	Assets, £bn Tier 1	Tiers 2&3	Total	Proportion of total assets
01/04/2023 and 31/03/2024	1,752	7.6	261.9	**269.5**	23.1%
01/10/2022 and 31/03/2023	2,882	10.6	865.2	**875.8**	75.0%
01/04/2022 and 30/09/2022	252	1.2	18.3	**19.5**	1.7%
01/04/2021 and 31/03/2022	65	0.3	1.8	**2.1**	0.2%
28/02/2009 and 31/03/2021	18	0.1	0.1	**0.2**	0.0%
Total	**4,969**	**19.8**	**1,147.3**	**1,167.1**	**100%**
Number of schemes		2,365	2,604	**4,969**	

Source: PPF

* There can be a significant gap between the date of the scheme return and the date of the asset allocation.

Figure 7.2 | Proportion of schemes and assets in each asset tier

52 per cent of schemes, but 98 per cent of assets held, are in asset tiers 2 and 3.



We combine tiers 2 and 3 because their asset allocation questions in the scheme return are the same. More information on asset tiers can be found on TPR's website: https://www.thepensionsregulator.gov.uk/en/trustees/submit-reports-payments-and-requests-to-us/scheme-return/db-and-mixed-benefit-scheme-return.

Asset allocation continued

Figure 7.3 | Weighted average asset allocation in total assets

The proportions of assets invested in equities continues to decline.

Year/The Purple Book dataset	Asset class			Breakdown of other investments							
	Equities	Bonds	Other investments	Cash and deposits	Property	Annuities	Diversified growth funds	Absolute returns	Insurance policies	Hedge funds	Miscellaneous
2006	61.1%	28.3%	10.6%	2.3%	4.3%	–	–	–	0.9%	–	3.1%
2011	41.1%	40.1%	18.8%	4.1%	4.4%	–	–	–	1.6%	2.4%	6.3%
2016	30.3%	51.3%	18.4%	3.0%	4.8%	2.1%	–	–	0.1%	6.6%	1.7%
2017	29.0%	55.7%	15.3%	-0.9%	5.3%	3.3%	–	–	0.1%	6.7%	0.8%
2018	27.0%	59.0%	14.0%	-2.5%	4.8%	3.4%	–	–	0.1%	7.0%	1.2%
2019	24.0%	62.8%	13.2%	-4.4%	5.0%	4.0%	–	–	0.3%	7.4%	1.0%
2020	20.4%	69.2%	10.4%	-7.2%	4.9%	5.0%	–	–	0.1%	6.8%	0.8%
2021	19.0%	72.0%	9.1%	-9.5%	4.7%	6.6%	–	–	0.1%	6.1%	0.9%
2022	19.5%	71.6%	8.9%	-8.8%	4.6%	6.8%	–	–	0.1%	5.2%	1.0%
2023 restated	18.8%	66.5%	14.7%	-3.3%	5.3%	7.3%	1.5%	3.0%	–	–	0.9%
2024	15.5%	69.8%	14.7%	-5.4%	5.9%	9.7%	1.0%	2.6%	–	–	0.9%

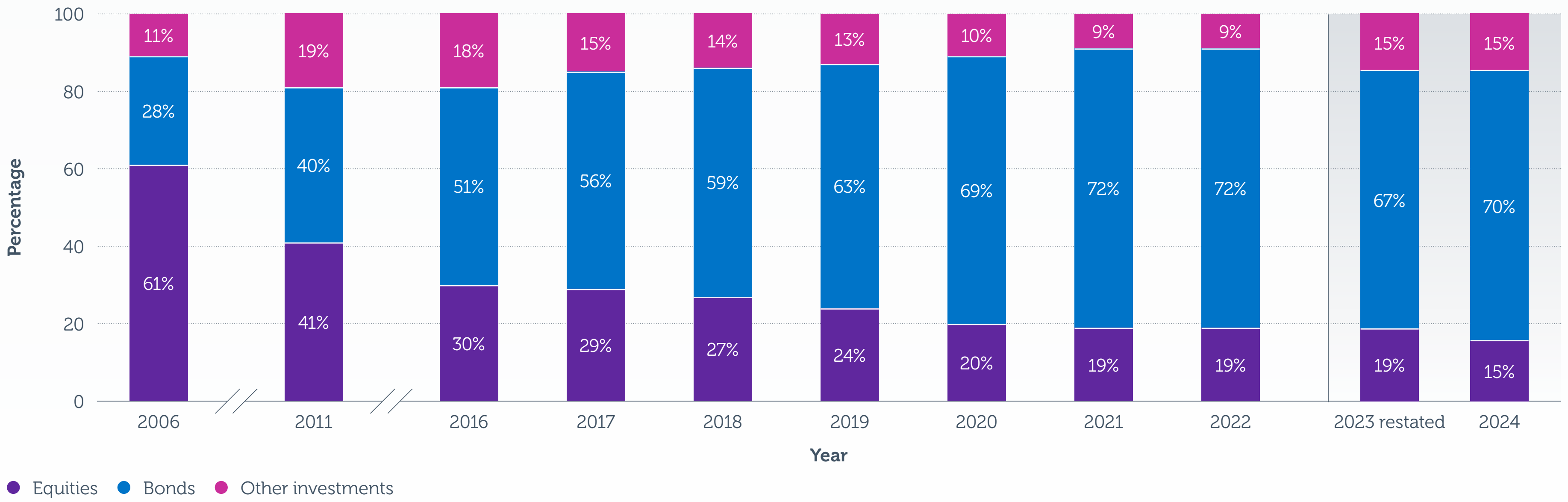
Note: figures may not sum to 100 per cent or the 'Other investments' total because of rounding.

The category 'bonds' represents those physically held as well as other investments whose economic characteristics resemble bonds, such as LDI.

From 2023 the categories 'insurance policies' and 'hedge funds' have been discontinued. There became two new categories: 'diversified growth funds' and 'absolute returns'.

The weighted average proportion of assets held in cash and deposits is negative. Negative cash holdings are likely to relate to investments such as swaps and repurchase agreements held as part of LDI strategies.

'–' indicates either that schemes may have been invested in these asset classes but the percentages could not be determined from the data held at the time, or because the category is new or no longer exists.



Note: figures may not sum to 100 per cent because of rounding.

Source: PPF

Figure 7.4 | Asset allocation: simple averages

The simple average proportion in cash and deposits is, as last year, more negative than the weighted average, perhaps suggesting that larger schemes have a smaller negative proportion in cash than small schemes have.

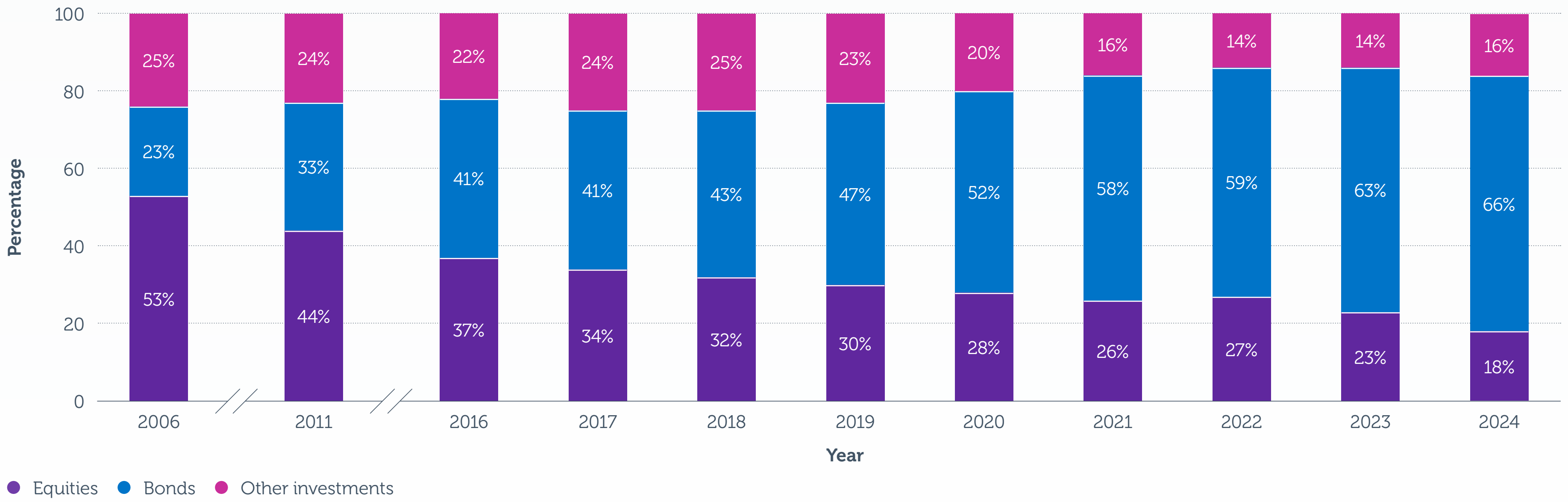
Year/The Purple Book dataset	Asset class			Breakdown of other investments							
	Equities	Bonds	Other investments	Cash and deposits	Property	Annuities	Diversified growth funds	Absolute returns	Insurance policies	Hedge funds	Miscellaneous
2006	52.6%	22.6%	24.8%	3.9%	2.1%	–	–	–	14.9%	–	3.6%
2011	43.7%	32.6%	23.7%	4.9%	2.7%	–	–	–	11.8%	1.0%	3.3%
2016	36.8%	41.1%	22.1%	5.4%	3.7%	2.4%	–	–	1.2%	7.9%	1.5%
2017	34.5%	41.4%	24.1%	3.6%	3.7%	6.8%	–	–	0.7%	7.9%	1.3%
2018	32.4%	43.1%	24.5%	1.8%	3.3%	8.9%	–	–	0.6%	8.5%	1.4%
2019	30.4%	47.0%	22.7%	−0.8%	3.4%	9.4%	–	–	0.5%	8.9%	1.3%
2020	27.8%	52.3%	19.9%	−3.2%	3.4%	9.7%	–	–	0.6%	7.9%	1.7%
2021	25.8%	58.0%	16.3%	−6.6%	3.2%	10.6%	–	–	0.6%	6.9%	1.7%
2022	27.1%	58.5%	14.4%	−7.5%	3.0%	10.7%	–	–	0.6%	6.0%	1.6%
2023	23.1%	62.9%	14.0%	−10.8%	2.8%	11.5%	6.7%	1.7%	–	–	1.9%
2024	17.8%	66.1%	16.1%	−8.9%	2.8%	13.8%	5.2%	1.3%	–	–	1.9%

Note: figures may not sum to 100 per cent or the 'Other investments' total because of rounding.

From 2023 the categories 'insurance policies' and 'hedge funds' have been discontinued. There are two new categories: 'diversified growth funds' and 'absolute returns'.

The simple average proportion of assets held in cash and deposits being negative represents a large number of schemes with significant negative cash holdings which are likely to be related to investments such as swaps and repurchase agreements.

'–' indicates either that schemes may have been invested in these asset classes but the percentages could not be determined from the data held at the time, or because the category is new or no longer exists.



Note: figures may not sum to 100 per cent because of rounding.

Source: PPF

Asset allocation continued

Figure 7.5 | Bond splits – high-level breakdown

The proportions of the high-level types of bonds have remained relatively stable compared to last year.

Year/*The Purple Book* dataset	Weighted average: Government fixed-interest	Weighted average: Corporate fixed-interest	Weighted average: Index-linked	Simple average: Government fixed-interest	Simple average: Corporate fixed-interest	Simple average: Index-linked
2008	33.2%	32.6%	33.9%	47.2%	33.0%	19.8%
2011	19.6%	44.3%	36.1%	31.2%	47.1%	21.7%
2016	21.9%	33.7%	44.4%	24.4%	49.0%	26.6%
2017	24.1%	31.4%	44.5%	25.9%	46.8%	27.3%
2018	24.1%	28.8%	47.1%	27.2%	42.1%	30.8%
2019	25.4%	28.4%	46.2%	29.0%	38.9%	32.1%
2020	25.9%	28.0%	46.1%	29.4%	36.1%	34.6%
2021	24.6%	28.2%	47.2%	30.4%	34.8%	34.8%
2022	22.0%	30.2%	47.8%	30.2%	35.7%	34.1%
2023 restated*	19.1%	37.6%	43.3%	25.6%	36.9%	37.5%
2024	19.5%	35.0%	45.5%	27.6%	35.3%	37.1%

* Weighted average only.

Note: the rows may not sum to 100 per cent because of rounding.

Source: PPF

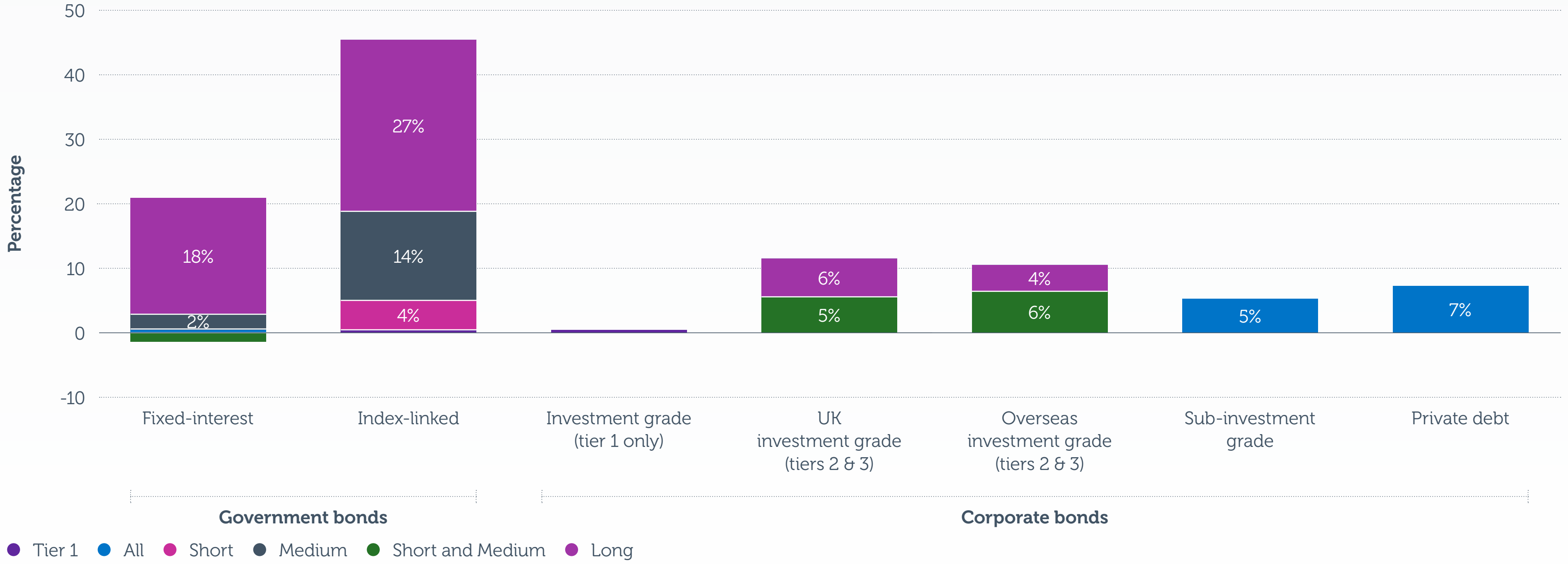
Note: figures may not sum to 100 per cent because of rounding.

Figure 7.6 | Bond splits – granular breakdown of *The Purple Book 2024* dataset

Government fixed-interest and index-linked bonds are mostly long-dated. Investment grade corporate bond proportions are balanced between territory and term.

Bond category	Weighted average: All	Tier 1	Short	Medium	Short and medium	Long	Unassigned*
Government fixed-interest	**19.5%**	0.4%	–1.4%	2.5%	–	18.0%	0.0%
Index-linked	**45.5%**	0.5%	4.5%	13.8%	–	26.7%	0.0%
Corporate fixed-interest, of which:	**35.0%**	–	–	–	–	–	–
Investment grade	0.4%	0.4%	–	–	–	–	–
UK investment grade	11.5%	–	–	–	5.5%	6.0%	–
Overseas investment grade	10.5%	–	–	–	6.4%	4.1%	–
Sub-investment grade	5.3%	–	–	–	–	–	–
Private debt	7.3%	–	–	–	–	–	–
Total	**100%**	**1.3%**	**3.1%**	**16.3%**	**11.9%**	**54.8%**	**0.0%**

* 'Unassigned' is generally where a scheme is in tiers 2 or 3 but did not provide the granular breakdown.



Source: PPF

Asset allocation continued

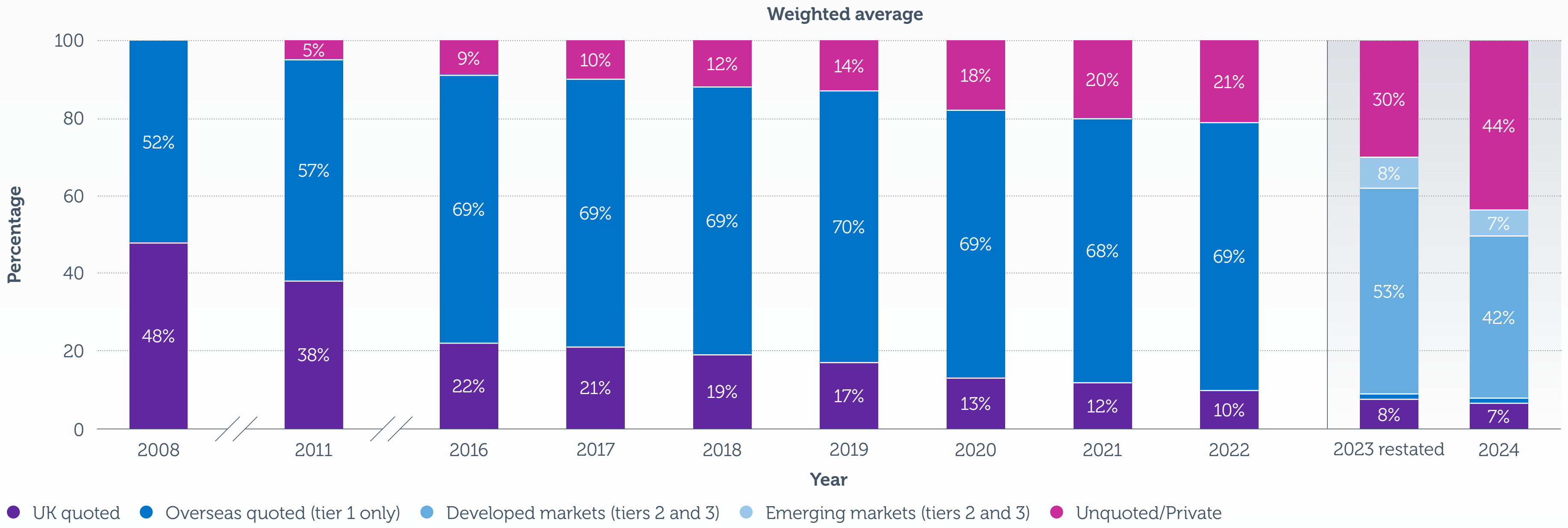
Figure 7.7 | Equity splits

Within equities, the proportion invested in UK equities continued to fall, but over the last year there was a sharper drop in the proportion invested in overseas equities, in favour of private or unquoted equity, whose proportion has risen to over 40 per cent.

	Weighted average					Simple average				
Year/*The Purple Book* dataset	UK quoted	Overseas quoted (tier 1 only from 2023)	Developed markets (tiers 2 and 3)	Emerging markets (tiers 2 and 3)	Unquoted/ Private	UK quoted	Overseas quoted (tier 1 only from 2023)	Developed markets (tiers 2 and 3)	Emerging markets (tiers 2 and 3)	Unquoted/ Private
2008	48.2%	51.8%	–	–	–	60.4%	39.6%	–	–	–
2011	38.0%	57.2%	–	–	4.8%	52.7%	46.1%	–	–	1.2%
2016	22.4%	68.6%	–	–	9.0%	38.8%	58.6%	–	–	2.6%
2017	20.5%	69.0%	–	–	10.5%	36.3%	61.0%	–	–	2.7%
2018	18.6%	69.4%	–	–	12.0%	32.1%	65.0%	–	–	3.0%
2019	16.6%	69.7%	–	–	13.7%	29.6%	66.7%	–	–	3.7%
2020	13.3%	69.0%	–	–	17.7%	26.9%	68.4%	–	–	4.8%
2021	11.6%	68.3%	–	–	20.1%	24.9%	69.4%	–	–	5.8%
2022	9.9%	68.6%	–	–	21.5%	22.5%	70.9%	–	–	6.6%
2023 restated*	7.6%	1.4%	53.0%	8.0%	30.0%	20.3%	28.7%	37.1%	4.7%	9.3%
2024	6.6%	1.4%	41.7%	6.7%	43.6%	17.7%	29.8%	33.9%	4.4%	14.2%

* Weighted average only.

Note: the rows may not sum to 100 per cent because of rounding.



Note: figures may not sum to 100 per cent because of rounding.

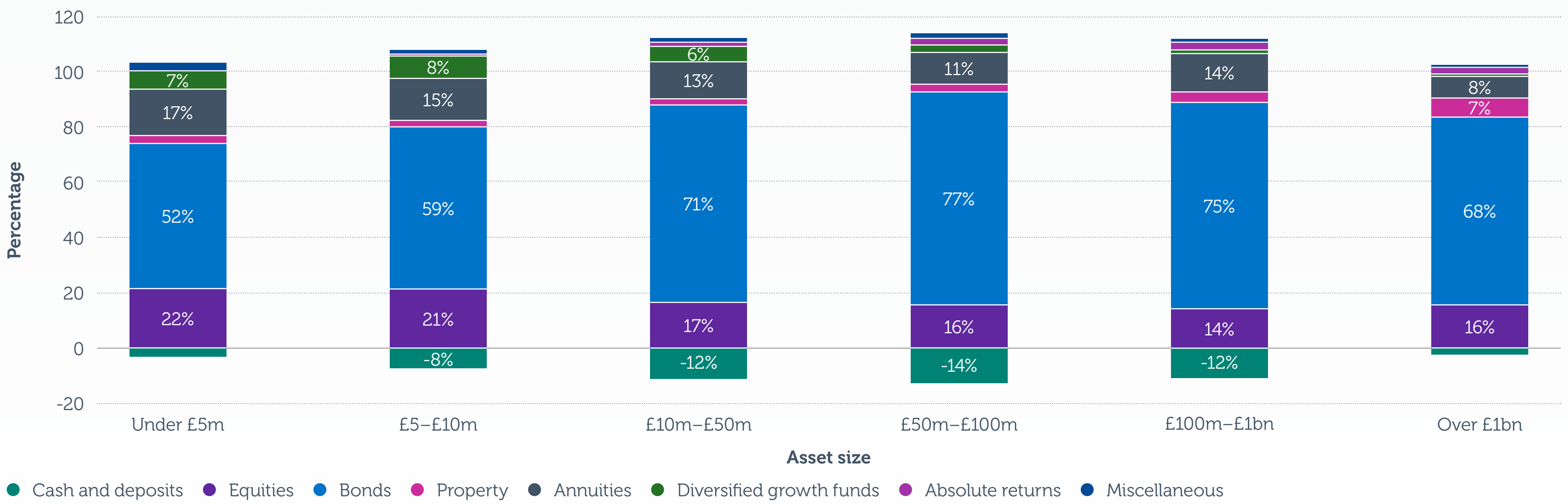
Starting with the 2023 scheme return, 'overseas quoted' is now split into two categories for tier 2 and 3 schemes – 'developed markets' and 'emerging markets'. The three overseas equity categories in shades of blue in the bars for 2023 onwards should be compared with the blue bars in the years prior to 2023.

Source: PPF

Figure 7.8 | Weighted average asset allocation of schemes by asset size

Schemes with assets less than £10 million have a lower proportion of their assets invested in bonds, with a higher proportion invested in annuities and equities.

Asset size	Equities	Bonds	Cash and deposits	Property	Annuities	Diversified growth funds	Absolute returns	Miscellaneous
Under £5m	21.6%	52.5%	-3.4%	2.9%	16.8%	6.6%	0.1%	2.9%
£5m–£10m	21.3%	58.8%	-8.0%	2.4%	15.2%	8.3%	0.3%	1.7%
£10m–£50m	16.6%	71.5%	-12.3%	2.2%	13.4%	5.5%	1.5%	1.6%
£50m–£100m	15.7%	77.1%	-14.0%	2.8%	11.5%	2.7%	2.4%	1.8%
£100m–£1bn	14.3%	74.7%	-11.9%	3.9%	13.8%	1.3%	2.8%	1.1%
Over £1bn	15.7%	68.0%	-2.5%	6.9%	8.0%	0.5%	2.6%	0.8%



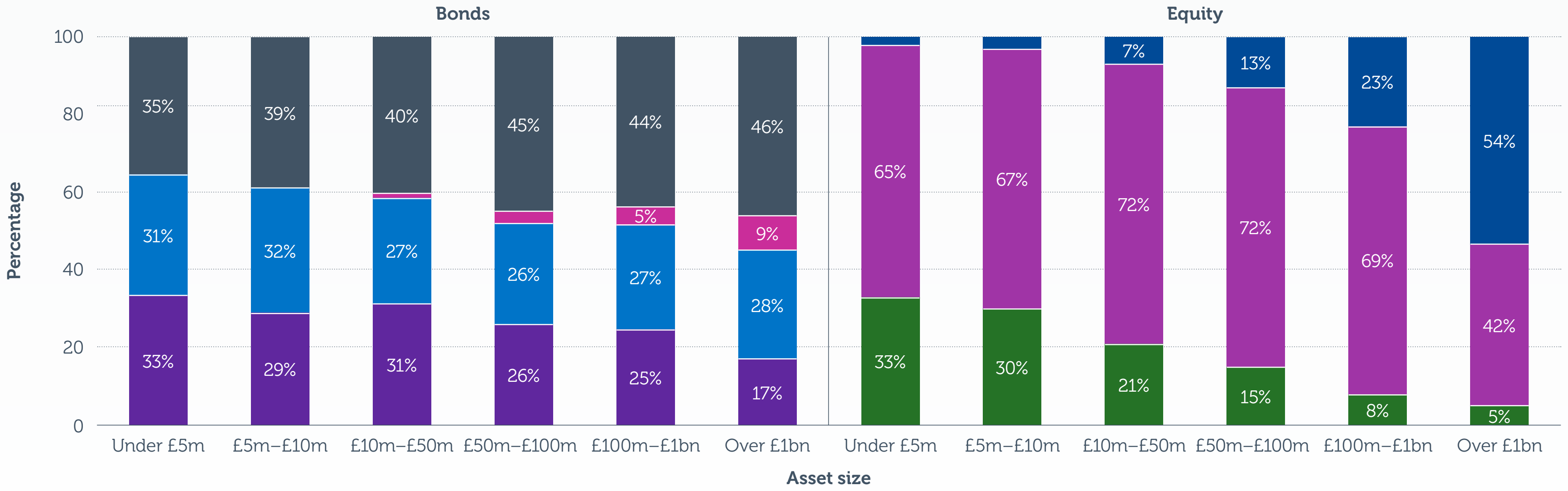
Source: PPF

Asset allocation continued

Figure 7.9 | Weighted averages of equity and bond holdings split by asset size

Larger schemes tend to hold a higher proportion of private/unquoted equity within their equity portfolio, and a higher proportion of private debt in their bond portfolio.

	Bonds				Equities		
Asset size	Government fixed-interest	Corporate – public markets	Corporate – private debt	Index-linked	UK quoted	Overseas quoted	Unquoted/Private
Under £5m	33.2%	31.1%	0.2%	35.5%	32.5%	65.4%	2.1%
£5m–£10m	28.9%	32.1%	0.3%	38.7%	30.4%	66.5%	3.1%
£10m–£50m	30.9%	27.5%	1.4%	40.2%	20.5%	72.2%	7.3%
£50m–£100m	26.0%	26.1%	3.1%	44.8%	14.5%	72.5%	13.0%
£100m–£1bn	24.8%	26.7%	4.8%	43.7%	8.4%	68.9%	22.7%
Over £1bn	16.7%	28.1%	8.7%	46.5%	4.7%	41.8%	53.5%

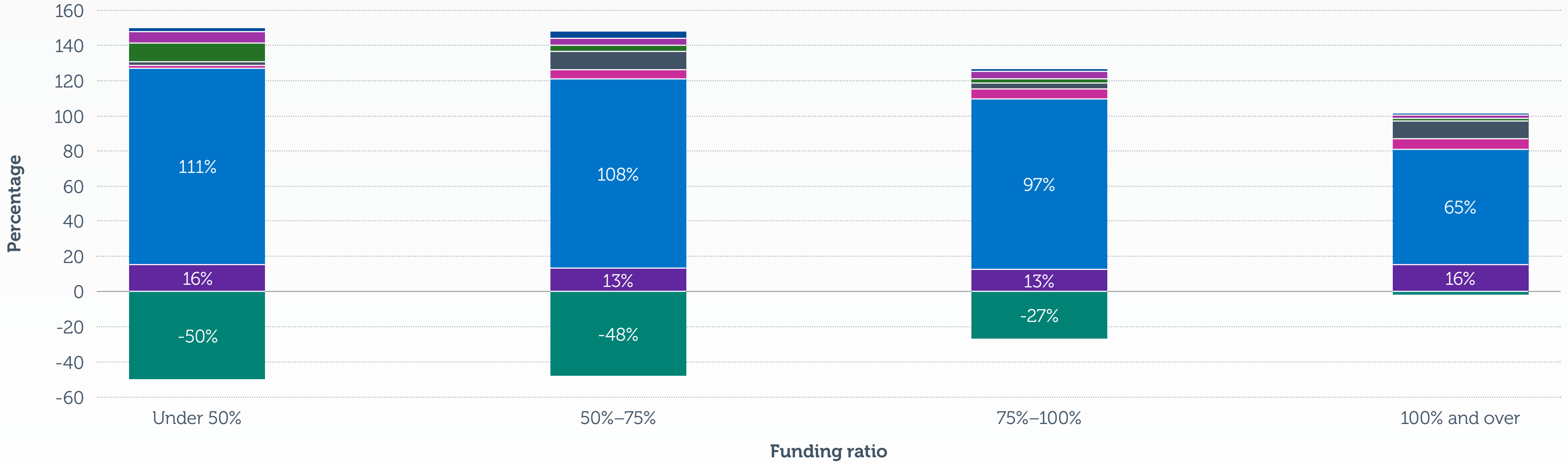


Source: PPF

Figure 7.10 | Weighted average asset allocation by s179 funding ratio

The majority of scheme assets are invested in equities and bonds for all funding ratio groups.

Funding ratio	Equities	Bonds	Cash and deposits	Property	Annuities	Diversified growth funds	Absolute returns	Miscellaneous
Under 50%	16.0%	111.3%	-50.0%	1.6%	2.4%	10.3%	6.7%	1.7%
50%–75%	13.2%	108.0%	-48.1%	5.3%	10.7%	3.2%	3.9%	3.8%
75%–100%	12.8%	97.0%	-26.8%	5.7%	3.7%	1.7%	4.6%	1.3%
100% and over	15.9%	65.2%	-1.5%	5.9%	10.6%	0.8%	2.2%	0.9%



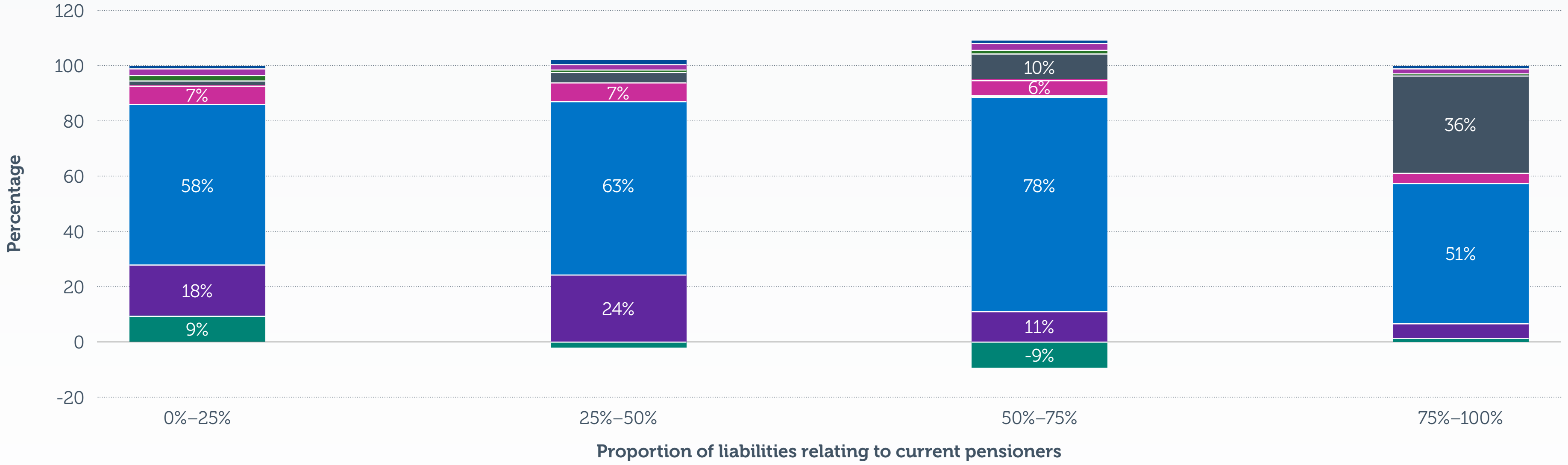
Source: PPF

Asset allocation continued

Figure 7.11 | Weighted average asset allocation of schemes by scheme maturity

As scheme maturity increases, the combined proportion of bonds and annuities increases.

Proportion of liabilities relating to current pensioners	Equities	Bonds	Cash and deposits	Property	Annuities	Diversified growth funds	Absolute returns	Miscellaneous
Under 25%	18.4%	58.1%	9.4%	6.8%	1.9%	2.0%	2.6%	0.8%
25%–50%	24.4%	62.7%	-2.0%	6.6%	4.1%	0.9%	1.9%	1.4%
50%–75%	11.1%	77.6%	-9.2%	5.8%	9.9%	1.1%	3.0%	0.7%
75%–100%	5.5%	51.1%	1.0%	3.4%	35.6%	0.4%	2.2%	0.8%



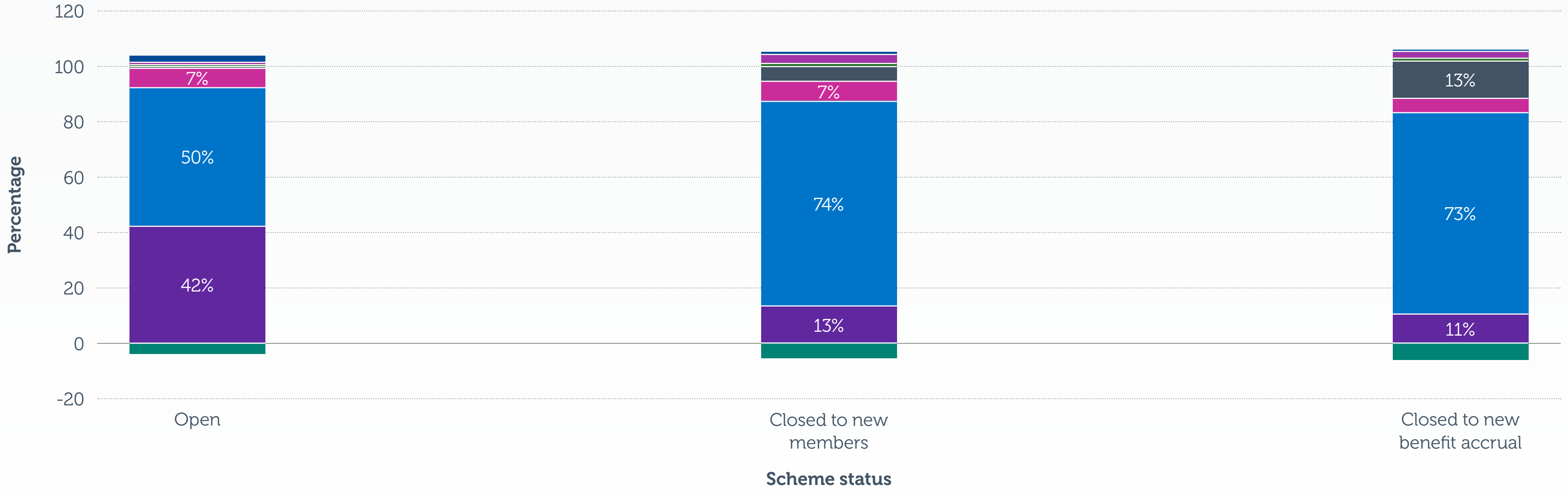
Source: PPF

Note: the high proportion in 'annuities' for mature schemes is mostly driven by the 15 largest holdings in this category. These 15 schemes account for around two per cent of the number of schemes in this category.

Figure 7.12 | Weighted average asset allocation of schemes by scheme status

Open schemes have a lower proportion of bonds, and a higher proportion of equities, than closed schemes.

Scheme status	Equities	Bonds	Cash and deposits	Property	Annuities	Diversified growth funds	Absolute returns	Miscellaneous
Open	42.4%	49.8%	-3.8%	7.1%	0.6%	0.4%	1.1%	2.4%
Closed to new members	13.3%	74.2%	-5.3%	6.9%	5.5%	1.1%	3.3%	1.0%
Closed to new benefit accrual	10.6%	72.8%	-6.0%	5.0%	13.5%	1.1%	2.4%	0.6%



08 Risk reduction

This chapter looks at the measures that schemes have taken to reduce their funding risk, which will also act to reduce the risk of schemes claiming on the PPF. These actions may also help schemes to reduce the amount of PPF levy they pay.

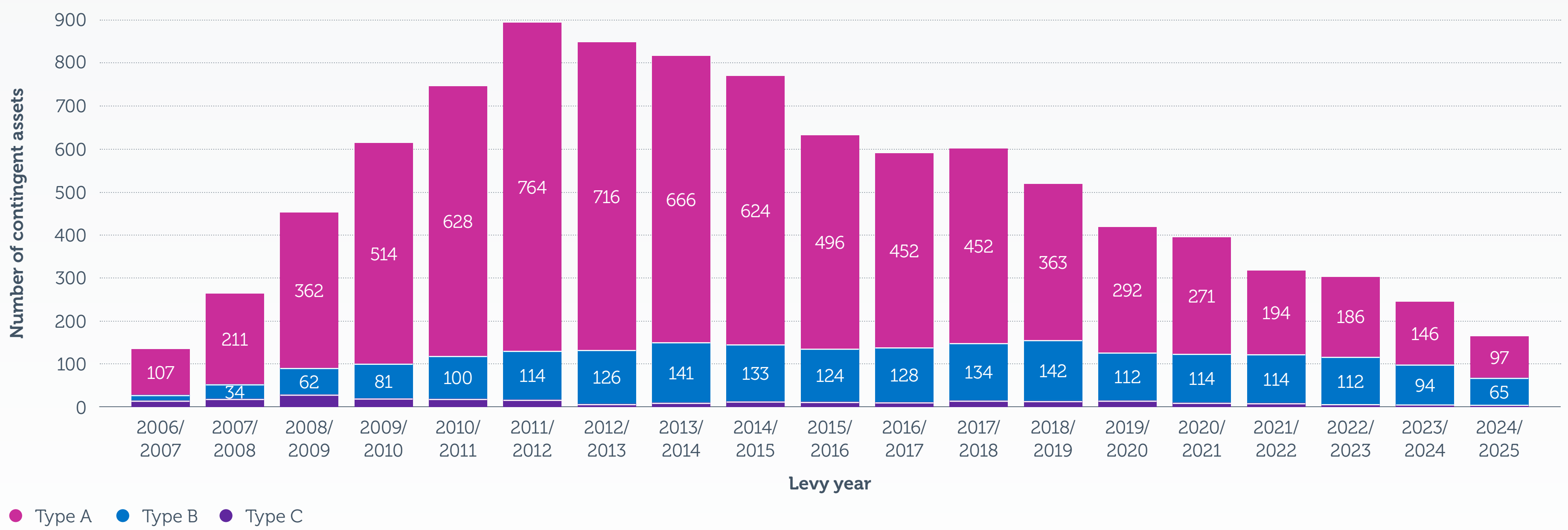
Summary

- This chapter contains information on some of the risk reduction measures DB schemes have put in place, including contingent assets, longevity swaps, buy-ins, and buy-outs. It also shows information on how recovery plan lengths and funding measures relative to DB schemes' Technical Provisions have changed over time.
- The total number of contingent assets submitted to the PPF for the 2024/25 levy year was 165, compared with 245 in 2023/24.
- Based only on current recovery plans in place, total annual recovery plan payments are indicated to be virtually finished in 10 years' time as schemes increasingly become fully funded on a Technical Provisions basis. The rate of decrease is planned to be similar between different scheme sizes and, in aggregate, annual recovery plan payments are set to fall from around £6.6 billion in 2024 to around £0.2 billion in 2034. Changes may be made to existing recovery plans and new recovery plans may be put in place in the future if experience is different from what has currently been assumed by schemes.
- Analysis of TPR's latest Technical Provisions and recovery plan data shows that in Tranche 17[1], the average recovery plan length was 4.7 years, around a year and a half shorter than that of Tranche 14 (comparable given the three-year valuation cycle). The average funding ratio as measured by assets divided by Technical Provisions was 97.2 per cent in Tranche 17.
- Technical Provisions as a percentage of s179 liabilities increased to 113.5 per cent from 102.9 per cent in Tranche 14. There was also a rise in Technical Provisions as a percentage of buy-out liabilities, from 75.8 per cent to 82.4 per cent.
- Total risk transfer business covering buy-outs, buy-ins and longevity swaps amounted to over £400 billion between 2013 and the first half of 2024. Around 30 per cent of these deals were longevity swaps.
- The total value of risk transfer deals was £60 billion in 2023, the highest ever year.
- Figures in this chapter currently exclude superfund transactions – there have been two since H2 2023, each of around £0.6 billion.

Contingent assets

Figure 8.1 | Contingent assets by type

The number of recognised contingent assets has followed a general downward trend over the last 14 years and is at its lowest level since levy year 2006/07.



Source: PPF

Type A Contingent Assets are parent/group companies' guarantees to fund the scheme, up to a pre-arranged amount.

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.

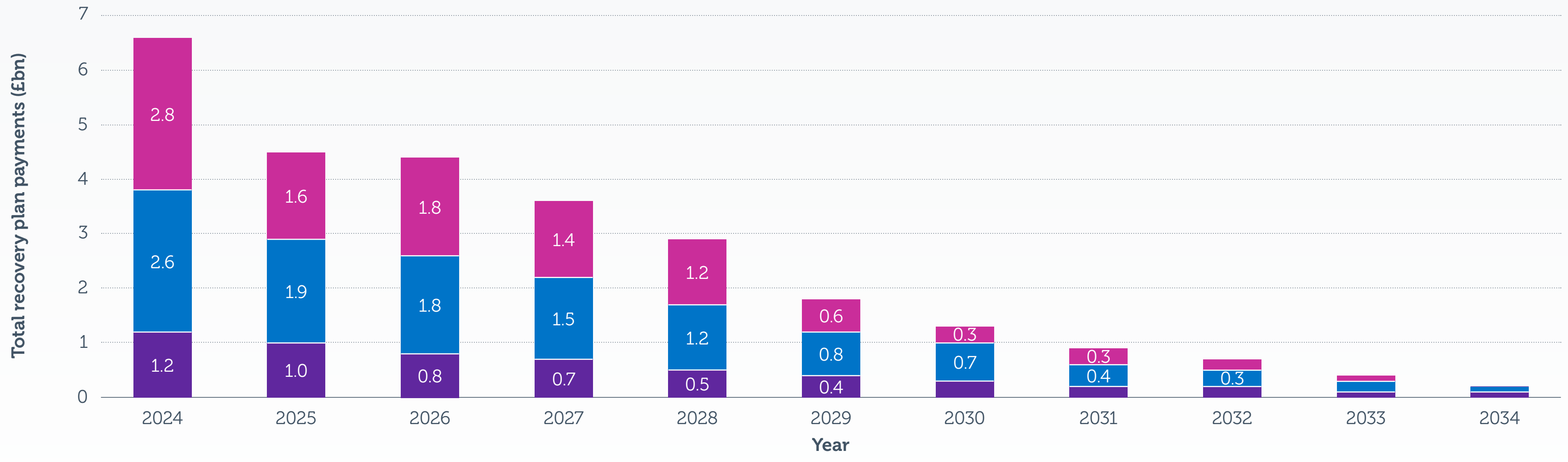
1 Tranche 17 covers schemes with valuation dates between 22 September 2021 and 21 September 2022.

Risk reduction continued

Recovery plan payments

Figure 8.2 | Planned recovery plan payments until 2034 by scheme asset size

Total annual recovery plan payments are planned to be largely finished in 10 years' time, decreasing from £6.6 billion in 2024 to £0.2 billion in 2034.



Source: TPR

The scheme funding regime

Figure 8.3 | Technical Provisions and recovery plan lengths (unweighted averages)

In Tranche 17, the average recovery period was 4.7 years, around a year and a half shorter than that of Tranche 14 (comparable given the three-year valuation cycle).

Tranche	Year of valuation	Number of recovery plans	Average length of recovery plan (years)	Assets as a percentage of Technical Provisions	Technical Provisions as a percentage of s179 liabilities	Technical Provisions as a percentage of buy-out liabilities
2	2006/07	1,888	7.7	82.3%	113.5%	70.3%
5	2009/10	1,937	8.5	79.0%	112.3%	72.9%
8	2012/13	1,726	8.5	82.2%	98.6%	70.9%
11	2015/16	1,462	7.9	87.0%	95.8%	69.2%
14	2018/19	1,180	6.2	91.6%	102.9%	75.8%
15	2019/20	1,288	6.3	89.0%	99.4%	76.4%
16	2020/21	1,055	5.7	93.7%	105.3%	79.4%
17	2021/22	859	4.7	97.2%	113.5%	82.4%

Source: 'Scheme funding analysis 2024 Annex', TPR, September 2024

Notes:

1 Valuation dates run from 22 September to 21 September.

2 70.8 per cent of schemes with Tranche 17 valuations reported valuations in respect of Tranches 14, 11, 8, 5 and 2.

Buy-outs, buy-ins, and longevity hedging

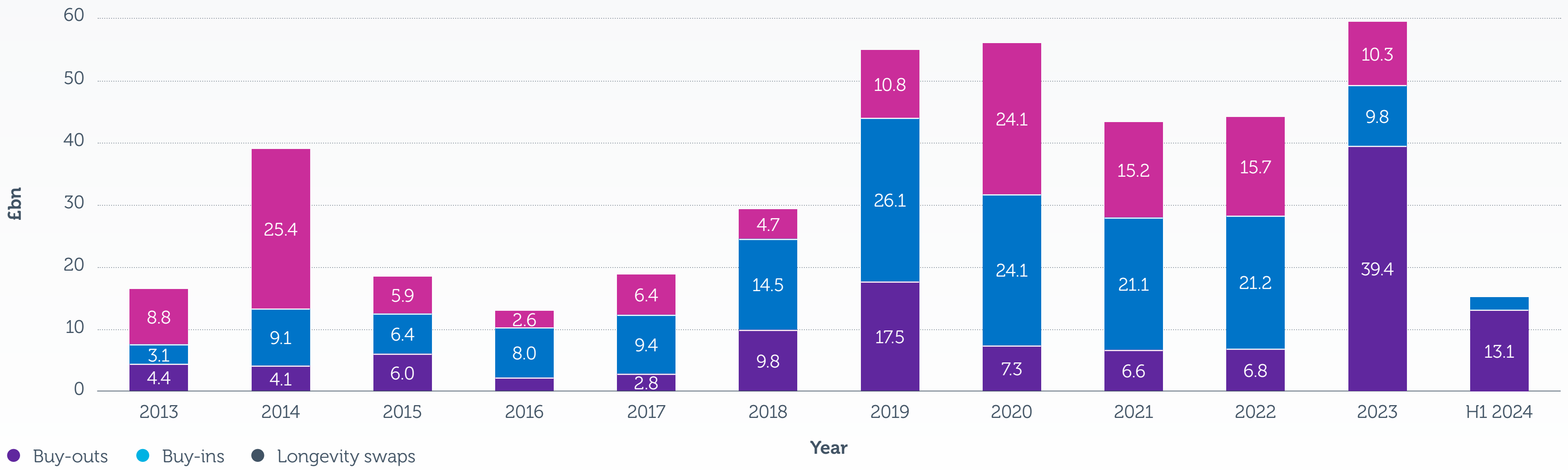
Buy-out and buy-in transactions provide schemes with the opportunity to remove risk relating to all or part of their liability. Under a buy-out deal, a scheme transfers its entire liability and scheme assets to an insurer in exchange for a premium. Insurers tend to require assets significantly in excess of Technical Provisions to compensate for the risk transferred. Buy-in deals result in an insurance policy as a scheme asset.

While both longevity swaps and buy-in/buy-out deals 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 cash flows that vary in accordance with the longevity experience of a reference population (either the named scheme members or a wider sample).

Figure 8.4 | Value of risk transfer deals since 2013

Around £60 billion of risk transfer deals were completed in 2023, the highest ever year.

This chart currently excludes superfund transactions – there was one in H2 2023 and one in H1 2024, each of around £0.6 billion.



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

Figure 8.5 | Number and value of risk transfer deals since 2013

While the value of transactions was higher in 2023 than in 2022, this was across a similar number of deals.

Year	Value of deals Buy-out	Value of deals Buy-in	Value of deals Total	Number of deals Buy-ins/buy-outs	Value of deals Longevity swap	Number of deals Longevity swap
2013	£4.4bn	£3.1bn	£7.5bn	219	£8.8bn	5
2014	£4.1bn	£9.1bn	£13.2bn	177	£25.4bn	5
2015	£6.0bn	£6.4bn	£12.4bn	176	£5.9bn	5
2016	£2.2bn	£8.0bn	£10.2bn	104	£2.6bn	4
2017	£2.8bn	£9.4bn	£12.2bn	132	£6.4bn	5
2018	£9.8bn	£14.5bn	£24.3bn	171	£4.7bn	3
2019	£17.5bn	£26.1bn	£43.6bn	157	£10.8bn	4
2020	£7.3bn	£24.1bn	£31.4bn	141	£24.1bn	6
2021	£6.6bn	£21.1bn	£27.7bn	156	£15.2bn	4
2022	£6.8bn	£21.2bn	£28.0bn	202	£15.7bn	5
2023	£39.4bn	£9.8bn	£49.2bn	226	£10.3bn	4
H1 2024	£13.1bn	£2.1bn	£15.2bn	134	–	–

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

09 PPF levy 2023/24

This chapter contains information on how much PPF levy was invoiced and how this was distributed between schemes and by employers.

Summary

Since 2006/07, the PPF has collected a total of £9.6 billion through levies, determined by the risk schemes pose to the PPF. This and other key statistics from this chapter are summarised in the following table:

Asset allocation year	2023/24[1]	2022/23
Total levy since 2006/07	**£9.6bn**	£9.4bn
Total levy in year	**£173m**	£385m
Proportion of total scheme assets	**0.01%**	0.02%
Number of schemes which contributed to this	**5,065**	5,136
Amount and proportion of total levy contributed by the top 100 levy payers (by size of levy)	**£109m** **63%**	£238m 62%
Proportion of schemes which paid no risk-based levy	**49%**	40%
Number of schemes with a capped risk-based levy	**0**	134
Proportion of total number of schemes	**0%**	2.6%
PPF levy band whose schemes made the largest contribution in the year	**1**	1
Levy contribution made by these schemes	**£49m**	£79m
Proportion of total levy contribution	**29%**	20%
Proportion of total liabilities accounted for by schemes in this category	**39%**	36%
Proportion of levy paid by schemes with sponsoring employers in the three top D&B (Dun & Bradstreet) scorecards (as measured by levy paid)	**77%**	83%

1 Year from 1 April 2023 to 31 March 2024.
Note: the percentages may not match those calculated using financial amounts in the table because of rounding.

Assets and liabilities, and therefore funding ratios, in this chapter are on a smoothed, stressed basis unless otherwise stated and exclude Deficit-Reduction Contributions (DRCs). For more information on these and other terms and definitions used in this chapter, see the 2023/24 Levy Determination, and its associated appendices, available on our website.

Total levy by year

In this section we compare total levy by levy year, from levy year 2012/13 to 2023/24. We look at the distribution across schemes broken down by levy band, considering the risk-based levy and scheme-based levy separately.

Figure 9.1 | Total levy

The levy has varied between £173 million and £648 million, and has fallen as a percentage of assets, since 2012/13.

Levy year	Total levy (£m)[1]	Levy as a percentage of assets[2]	Number of capped schemes[3]
2012/13	648	0.08%	427
2013/14	577	0.06%	302
2014/15	579	0.06%	274
2015/16	560	0.05%	211
2016/17	563	0.05%	187
2017/18	541	0.04%	147
2018/19	564	0.04%	184
2019/20	564	0.04%	161
2020/21	630	0.04%	160
2021/22	476	0.03%	173
2022/23	385	0.02%	134
2023/24	173	0.01%	0

Source: PPF
Notes:
1 The figures quoted in this chapter are based on the total levy for the dataset of 5,065 schemes in 2023/24, or from prior years' *Purple Books*.
2 Total levy as a percentage of levy-paying schemes' total assets.
3 Refers to schemes to which the risk-based levy cap is applied.

Figure 9.2 | Distribution of levy by largest levy payers in 2023/24

In 2023/24, the top 100 levy payers accounted for £109 million, or 63 per cent of the total levy.

Source: PPF
Note: the 1,001+ category accounts for a significant percentage of the total number of levy payers as it contains just over 4,130 schemes.

PPF levy 2023/24 continued

Figure 9.3 | Schemes with no risk-based levy by levy year

The proportion of schemes paying no risk-based levy is the highest since the introduction of the New Levy Framework in 2012/13.

Levy year	Number of schemes	Percentage of total schemes	s179 liabilities (£bn)[1]	s179 liabilities as percentage of total
2012/13	1,191	19%	199	19%
2013/14	1,056	17%	171	15%
2014/15	1,113	18%	206	17%
2015/16	985	17%	195	14%
2016/17	961	17%	239	16%
2017/18	1,011	18%	405	25%
2018/19	1,457	26%	560	35%
2019/20	1,509	28%	562	33%
2020/21	1,503	28%	624	34%
2021/22	1,766	34%	737	40%
2022/23	2,069	40%	850	48%
2023/24	2,467	49%	976	59%

Source: PPF

1 Liabilities are stressed and smoothed.

Figure 9.4 | Number of schemes within each levy band

There were no schemes with a capped risk-based levy for 2023/24.

This table usually represents the number of schemes with capped risk-based levies by levy band, but in levy year 2023/24 there were no schemes with a capped risk-based levy.

Levy band	Levy rate	Total number of schemes
1	0.28%	1,536
2	0.30%	376
3	0.31%	375
4	0.34%	491
5	0.39%	520
6	0.49%	655
7	0.63%	492
8	0.76%	223
9	0.89%	232
10	1.16%	165
Total		**5,065**

Source: PPF

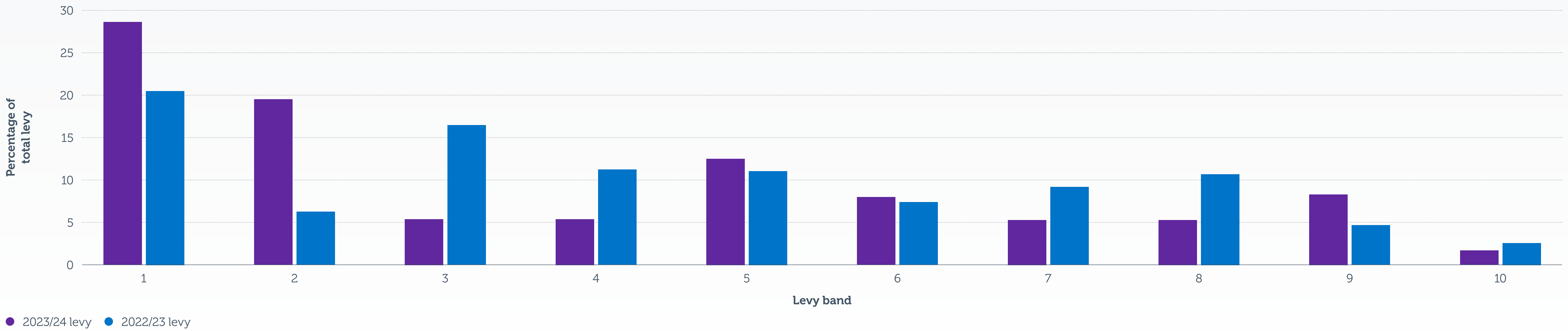
Note: We calculate a scheme's risk-based levy by mapping the sponsoring employer's insolvency probability to one of the 10 levy rates above. For schemes with multiple employers, we calculate their insolvency probability as an average over the corresponding employers, mapped back to the nearest levy band. This is then multiplied by the amount of underfunding in the scheme and the levy scaling factor to give the risk-based levy. Further details of how the PPF levy is calculated can be found on the PPF website: https://www.ppf.co.uk/how-levy-calculated.

Figure 9.5 | Number of schemes with capped risk-based levies by funding ratio (on a stressed and smoothed basis)

There are no schemes with capped risk-based levies for the levy year 2023/24.

Figure 9.6 | Levy distribution by levy band

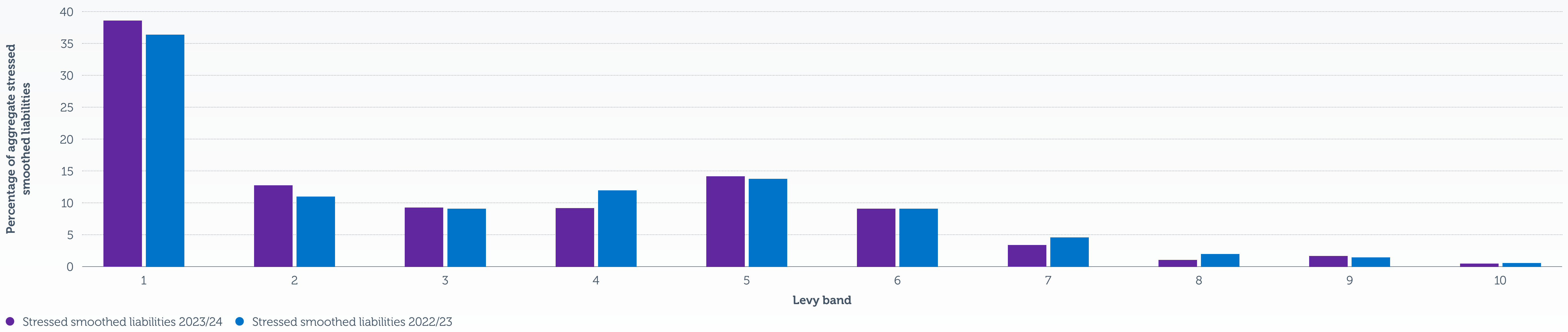
Schemes in levy bands 1 and 2 made the largest contribution to the total levy in 2023/24, paying about 30 and 20 per cent, respectively.



Source: PPF

Figure 9.7 | s179 aggregate stressed smoothed liabilities by levy band

Schemes in levy band 1 account for 39 per cent of the total liabilities in 2023/24.

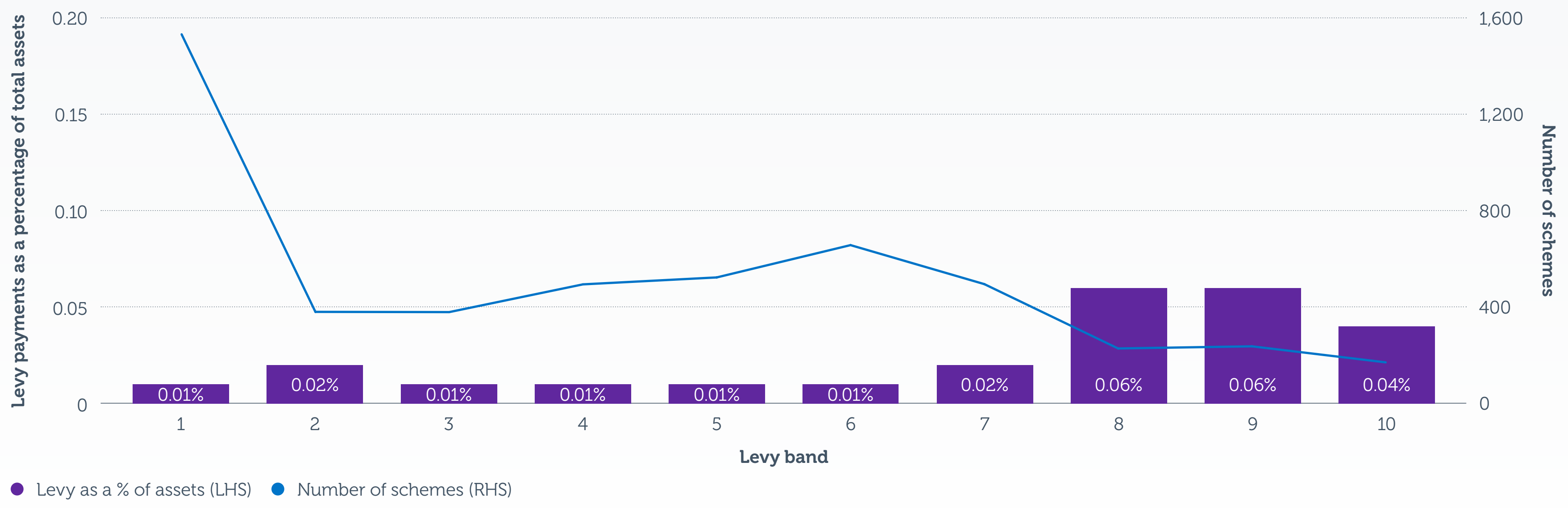


Source: PPF

PPF levy 2023/24 continued

Figure 9.8 | Levy as a proportion of assets by levy band

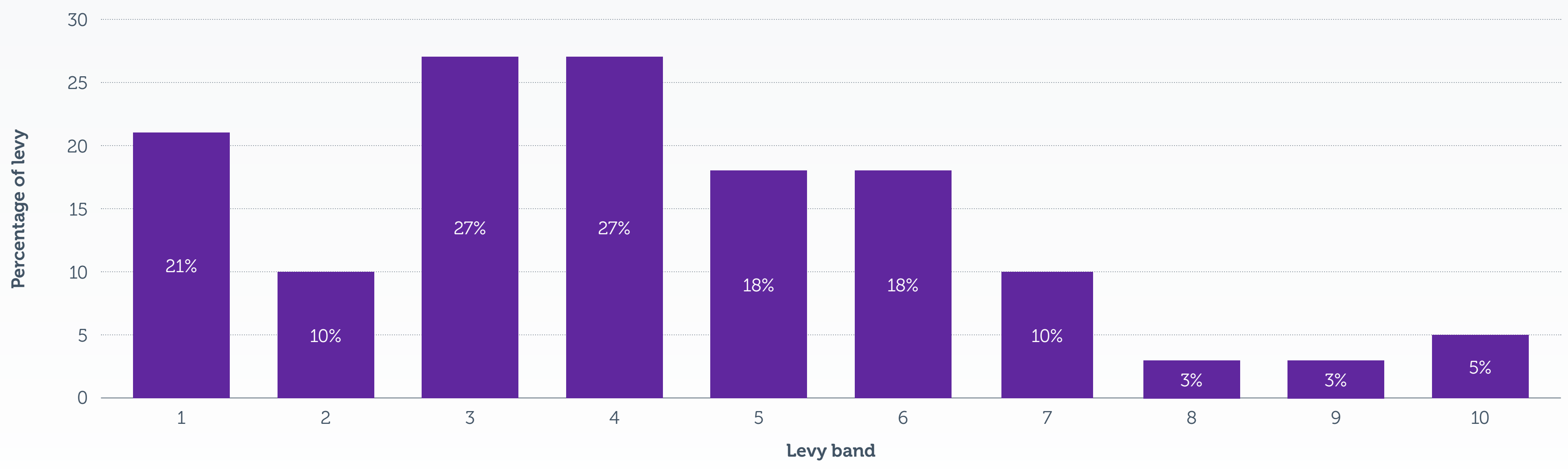
Schemes in levy bands 8 and 9 paid a noticeably higher levy, expressed as a percentage of assets, than schemes in other bands.



Source: PPF

Figure 9.9 | Percentage of total levy that is scheme-based[1] by levy band

Schemes in levy bands 1, 3, and 4 saw the highest proportions of levy that is scheme-based. Bands 8–10 saw the lowest.



Source: PPF

1 For the definition of scheme-based levy, see the 2023/24 Levy Determination on our website.

Figure 9.10 | Percentage of total levy that is scheme-based by funding ratio (on a stressed and smoothed basis, excluding bespoke asset stress submissions)

For schemes that were over 100 per cent funded the scheme-based levy constituted 100 per cent of their total levy.

Funding ratio of scheme	Less than 50%	50%–75%	75%–100%	Over 100%
Percentage of levy that is scheme-based	2.0%	6.5%	15.4%	100.0%

Source: PPF

PPF levy 2023/24 continued

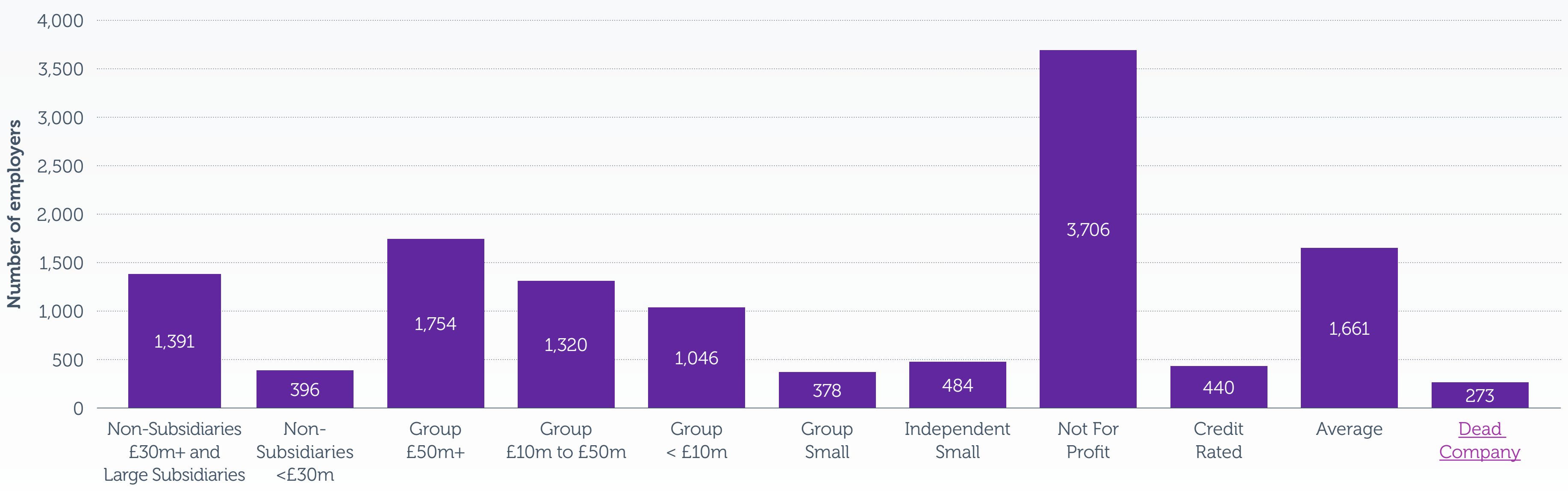
D&B scorecards

For the 2023/24 levy year, we used the PPF and Dun & Bradstreet's (D&B's) bespoke model for assessing insolvency risk of schemes in the universe.

The charts in this section show how many sponsoring employers in the PPF universe are assigned to each scorecard, and how much of the total 2023/24 PPF levy was collected in respect of schemes sponsored by the employers in these categories.[1]

Figure 9.11 | Number of sponsoring employers in each D&B scorecard

Not For Profit organisations make up the greatest number of sponsoring employers in the PPF universe.

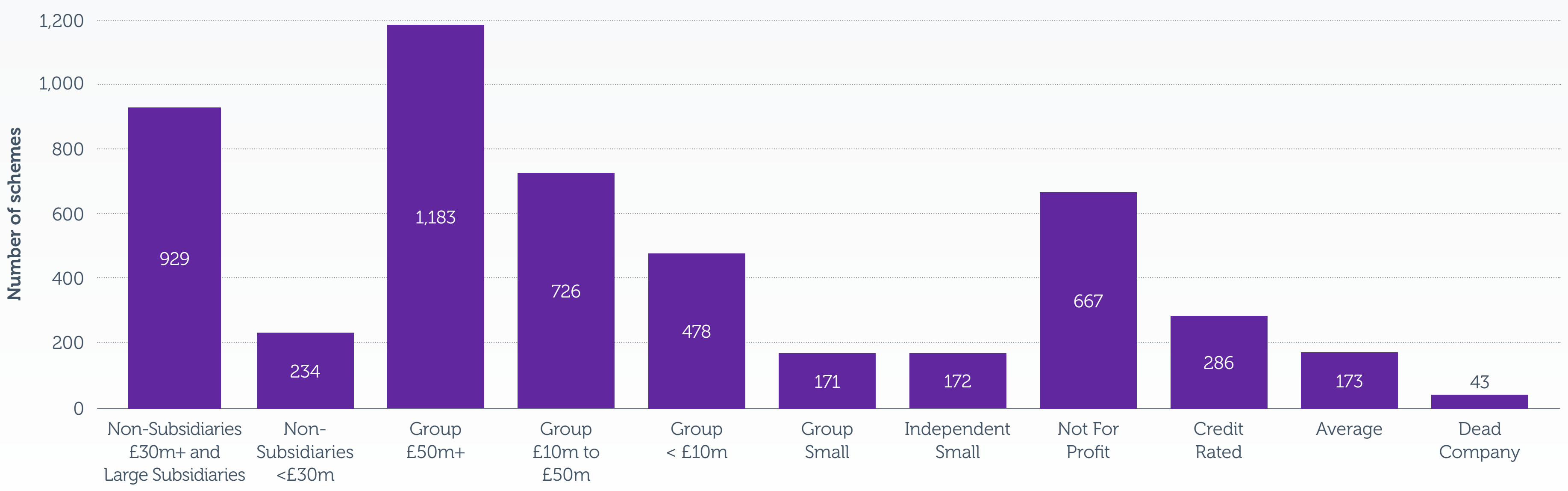


Source: PPF

1 For multi-employer schemes with employers on different scorecards, the levy was split proportionately by membership numbers.

Figure 9.13 | Number of schemes with sponsoring employers in each D&B scorecard

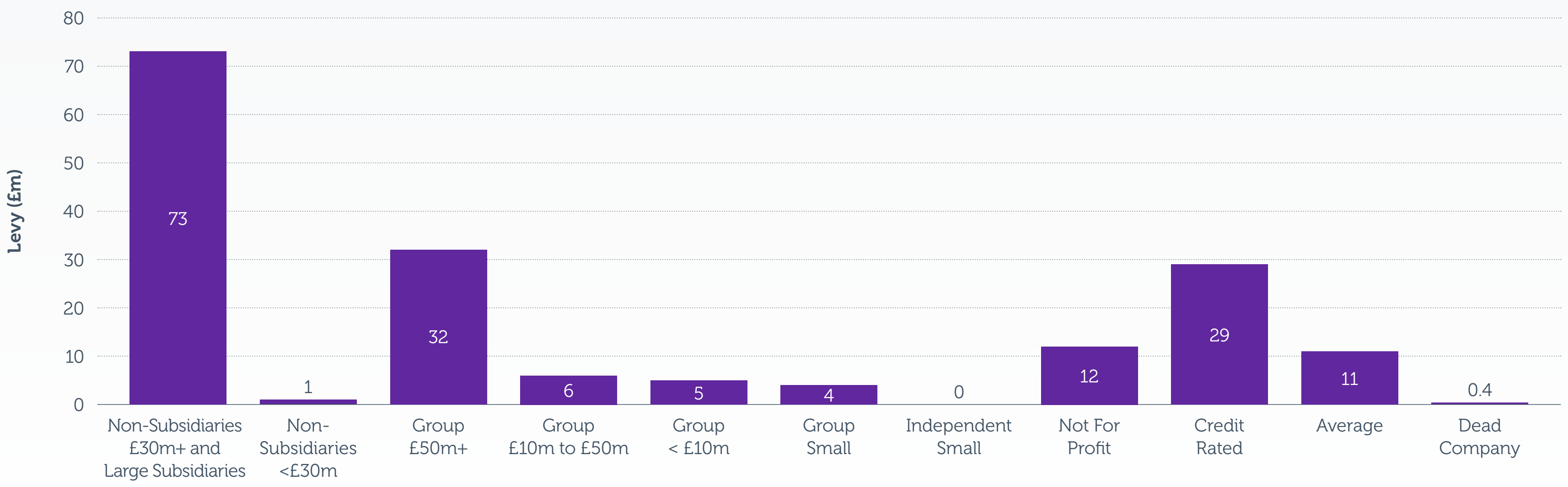
42 per cent of schemes had sponsoring employers categorised as 'Non-Subsidiaries £30 million+ and Large Subsidiaries' or 'Group £50 million+'.



Source: PPF

Figure 9.12 | Levy invoiced in respect of schemes with sponsoring employers in each D&B scorecard

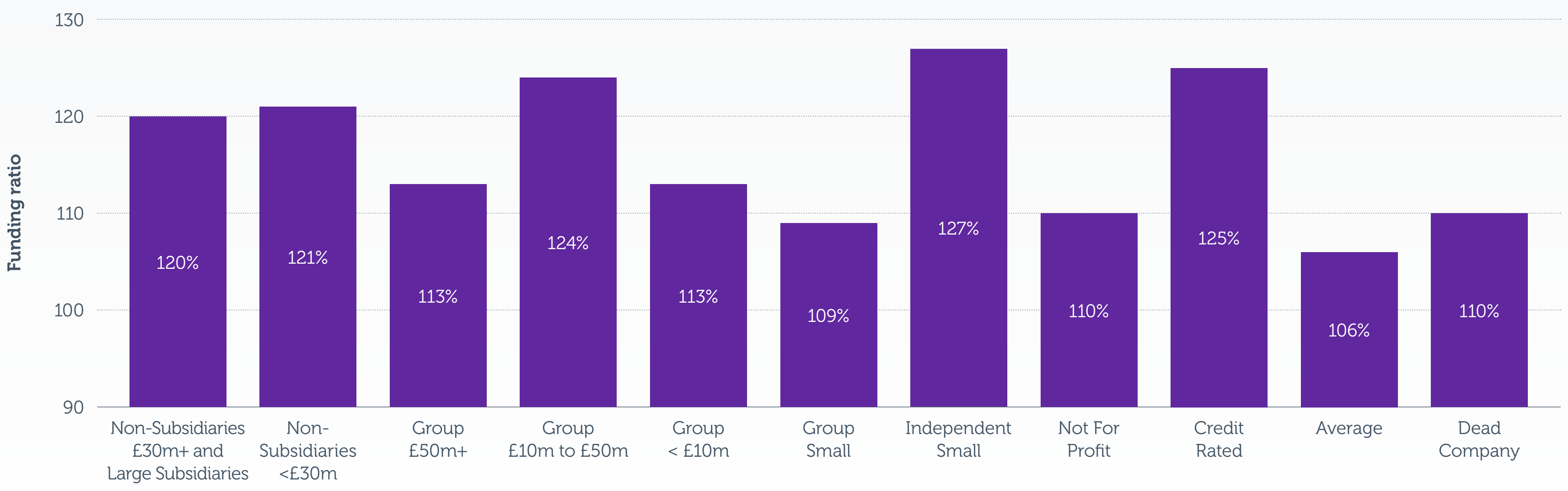
Schemes with sponsoring employers on three of the 12 D&B scorecards paid 77 per cent of the total levy.



Source: PPF

Figure 9.14 | Aggregate funding ratio (unstressed and unsmoothed assets and liabilities) of schemes with sponsoring employers in each D&B scorecard

Funding ratios vary by around 21 percentage points across the scorecards used to assess the insolvency risk of employers of schemes.



Source: PPF

10 Claims and schemes in assessment

This chapter looks at characteristics of schemes that were in a PPF assessment period as at 31 March 2024. Once a scheme has made a claim, it must go through an assessment period to determine its ability to pay PPF levels of compensation, before it is able to enter the PPF.

Summary

- The changes over the year since 31 March 2023 reflect new schemes entering (and then remaining) in assessment, schemes transferring into the PPF, and schemes being rescued, rejected, or withdrawn.
- The following table sets out some of the statistics about schemes in PPF assessment[1] as at 31 March 2024, including comparisons with both the previous year and schemes in the universe.

		31 March 2024	31 March 2023
Schemes in assessment[2]	Number of schemes	**59**	60
	Number of records in respect of all members[3]	**39,000**	67,000
	Total assets (£bn)	**1.7**	4.0
	Total PPF liabilities (£bn)	**1.8**	4.1
	Aggregate funding ratio	**93%**	97%
Schemes in universe	Aggregate funding ratio	**123%**	120% (restated)

Notes:

1 For the purpose of this chapter we treat separate sections and segregated parts of the same scheme as one single scheme. We also include overfunded schemes that we do not expect to transfer to us. This is different from the approach in our Annual Report and Accounts (ARA) where we treat all segregated parts of schemes as separate schemes, and generally exclude overfunded schemes.

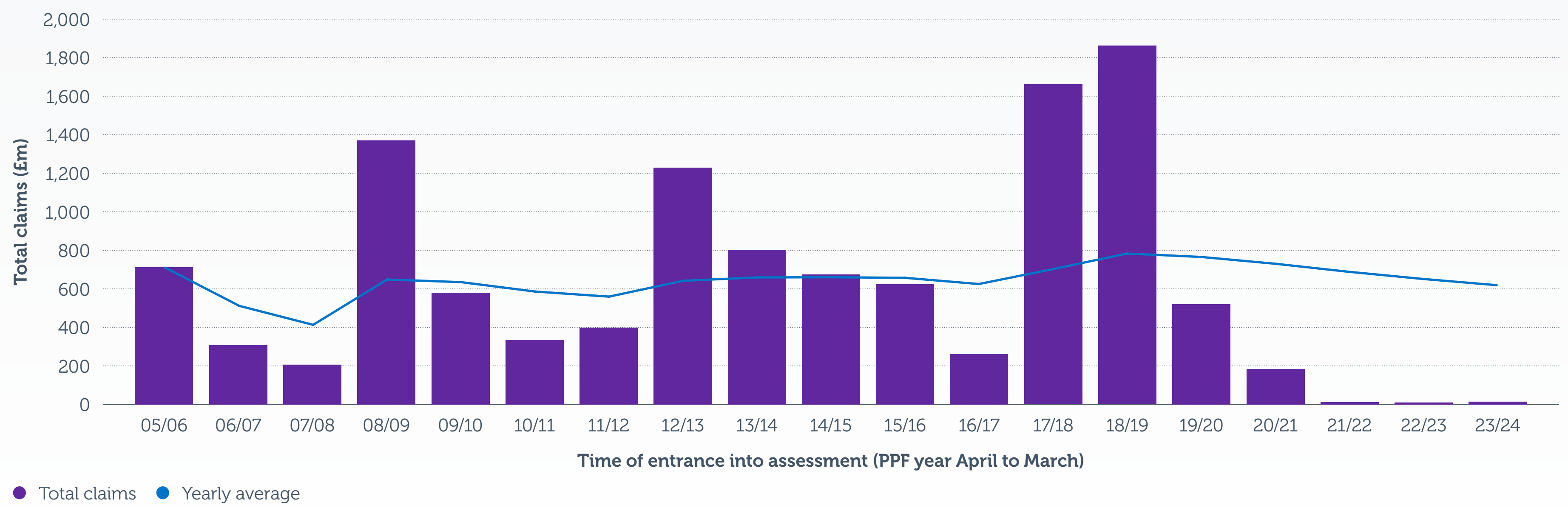
2 These figures differ from those in the ARA because of the inclusion of overfunded schemes, the exclusion, in *The Purple Book*, of expected reapplications, and the use of a different set of actuarial assumptions.

3 Some members may have more than one record in the data.

Schemes entering assessment

Figure 10.1 | Total claim amounts (s179 basis) for schemes entering an assessment period

The total s179 deficit of the 18 schemes that entered assessment in the year to 31 March 2024 was £14 million.

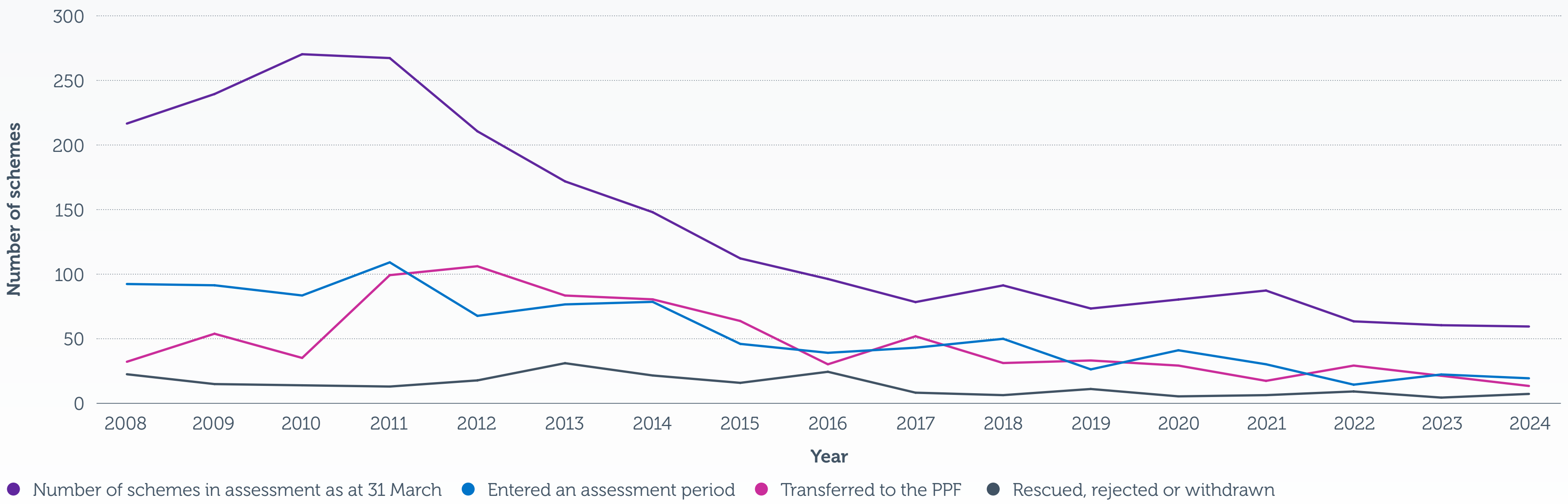


Source: PPF

Claims and schemes in assessment continued

Figure 10.2 | Number of schemes in assessment each year as at 31 March

59 schemes were in PPF assessment at 31 March 2024, a similar number to the 60 last year.



Note: the figures in the chart exclude those schemes that came into assessment and were subsequently rescued, rejected, or withdrawn in the same year.

Source: PPF

Figure 10.3 | Funding statistics for schemes in assessment each year, as at 31 March

The aggregate funding ratio of schemes in assessment at 31 March 2024 has decreased slightly to 93 per cent. This compares to an aggregate funding ratio of 123 per cent in the PPF-eligible universe as a whole.

Year	Assets (£bn)	Liabilities (s179) (£bn)	Net funding position (£bn)	Aggregate funding ratio	Universe aggregate funding ratio
2007	4.0	4.7	-0.7	85%	109%
2011	9.5	10.9	-1.4	87%	100%
2016	5.0	7.4	-2.4	68%	86%
2017	5.6	6.6	-1.0	85%	91%
2018	6.9	9.3	-2.4	74%	96%
2019	7.7	11.2	-3.5	69%	99%
2020	10.3	13.6	-3.3	76%	95%
2021	8.6	9.4	-0.8	91%	103%
2022	5.9	6.4	-0.4	93%	113%
2023	4.0	4.1	-0.1	97%	120% (restated)
2024	1.7	1.8	-0.1	93%	123%

Note: the components may not sum to the total, and the ratios of the components may not equal the aggregate ratios, because of rounding.

Source: PPF

Scheme demographics

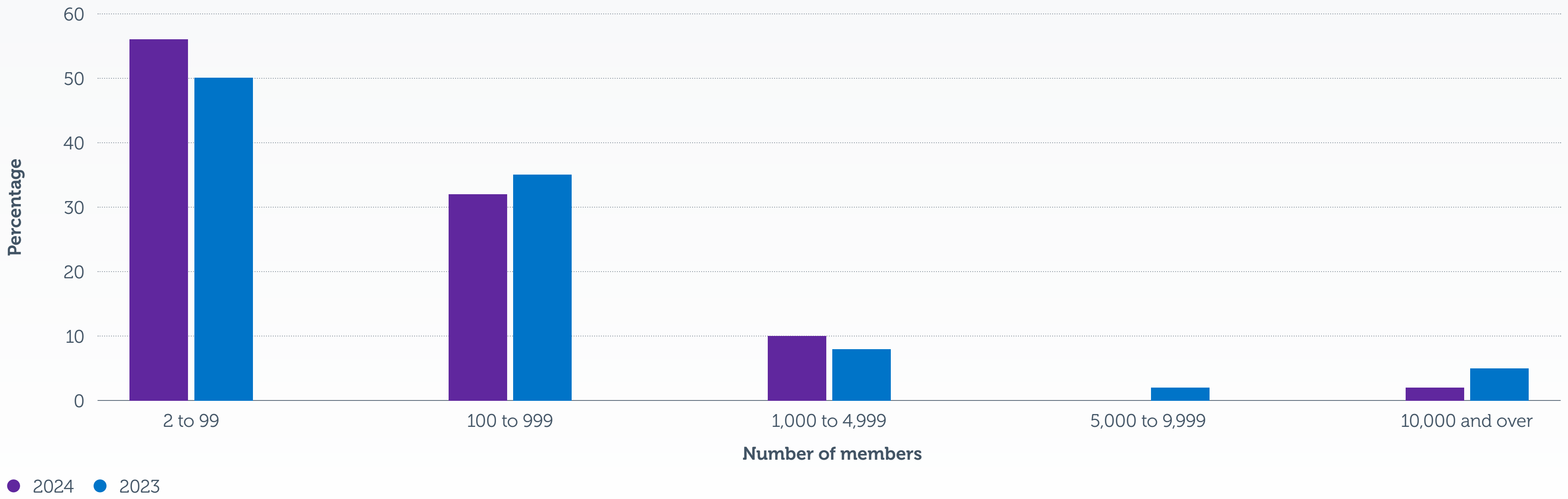
Figure 10.4 | Percentage of schemes and percentage of s179 liabilities grouped by size of liabilities, for schemes in assessment as at 31 March 2024

Schemes in PPF assessment that have liabilities of over £250 million represent around two per cent of schemes and 34 per cent of liabilities.

Source: PPF

Figure 10.5 | Proportion of schemes in assessment by membership size

Around 88 per cent of schemes in assessment have fewer than 1,000 members.



Source: PPF

Claims and schemes in assessment continued

Figure 10.6 | Maturity of schemes in assessment by membership size

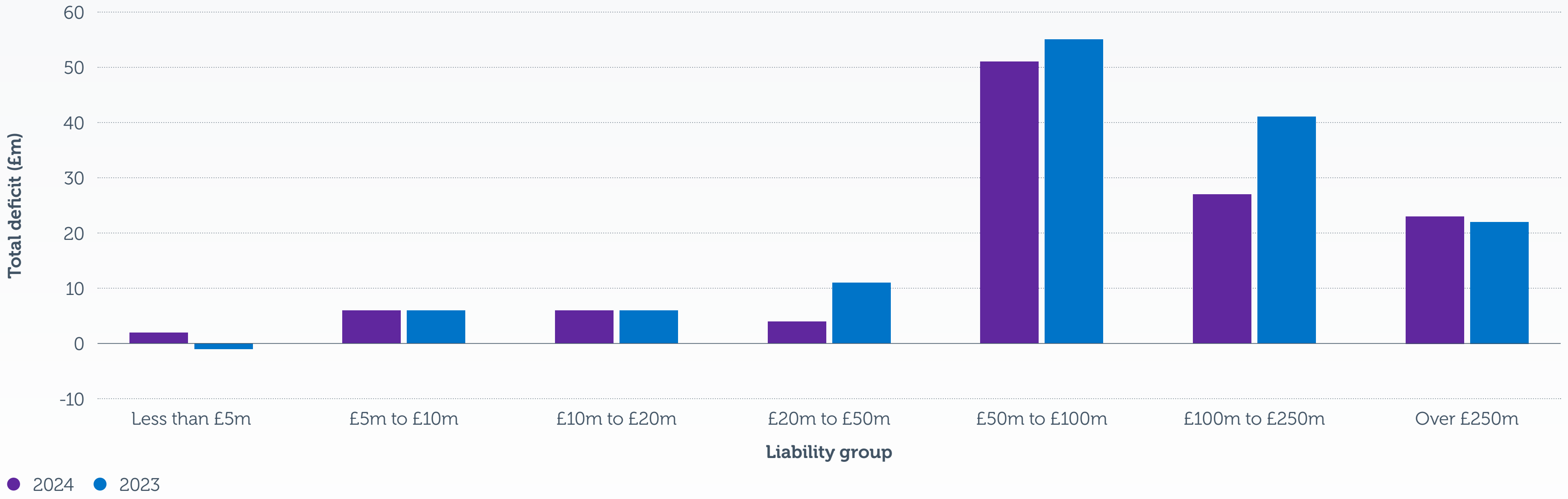
Schemes in assessment with 10,000 members or more have the greatest proportion of pensioners, compared to smaller schemes.

There were no schemes with between 5,000 and 9,999 members in assessment at 31 March 2024.

Source: PPF

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

42 per cent of the deficit from schemes in assessment relates to schemes with liabilities of more than £100 million, down a little from 45 per cent last year.



Source: PPF

Note: the total deficit in 2023 for schemes with liabilities less than £5m was around -£1m, i.e. a £1m surplus. This is because a scheme in this group had a deficit at its assessment date but a surplus as at 31 March 2023.

11 PPF compensation 2023/24

This chapter looks at our membership, including the compensation we paid to our members in 2023/24, and some demographic characteristics.

Summary

When a scheme transfers into the PPF, we generally pay compensation of 90 per cent of the scheme pension (no longer subject to a compensation cap[1]) to members who have not reached their Normal Pension Age (NPA) at the date the scheme entered assessment. We will generally pay a starting level of compensation equivalent to 100 per cent of the scheme pension to those members who are over their NPA at the start of the assessment period.

Here are some of the key statistics featured in this chapter:

	31 March 2024	31 March 2023
PPF compensation paid in the year	**£1,208m**	£1,217m
Number of records in respect of members receiving compensation	**204,831**	199,895
Average annual amount paid to members and dependants	**£4,940**	£4,882
Number of records in respect of deferred members (members with compensation not yet in payment)	**99,533**	106,977
Average annual compensation accrued by deferred members	**£3,561**	£3,548

Total compensation and other member statistics

Figure 11.1 | Total compensation and number of member records

Total compensation paid in the year to 31 March 2024 was £1,207.6 million, similar to the amount paid in the previous year.

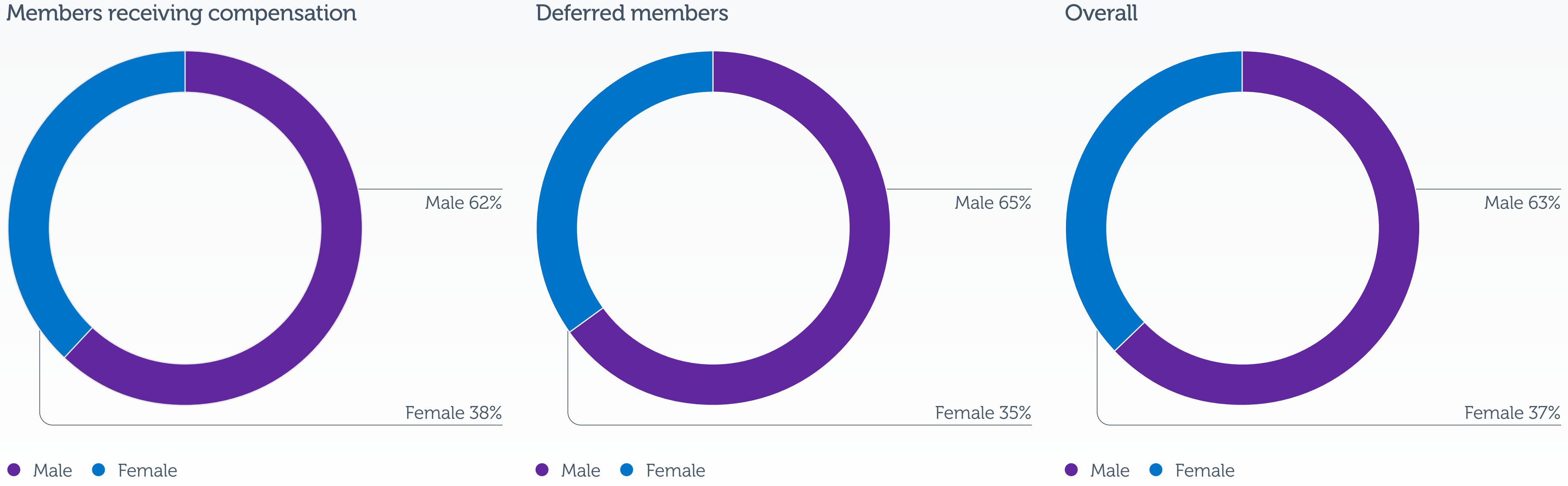
		Number of member records*		
Year ended 31 March	Total compensation paid	Members receiving compensation	Deferred members	Total
2007	1.4	1,457	5,621	7,078
2011	119.5	33,069	42,063	75,132
2016	616.0	121,059	109,143	230,202
2017	661.3	129,661	110,478	240,139
2018	724.5	135,377	107,759	243,136
2019	775.1	148,005	109,567	257,572
2020	859.7	169,861	116,461	286,322
2021	1,006.4	184,844	113,902	298,746
2022	1,114.9	193,983	111,995	305,978
2023	1,217.0	199,895	106,977	306,872
2024	1,207.6	204,831	99,533	304,364

Source: PPF

* Some members have more than one record in the data.

Figure 11.2 | Sex of members in the PPF

The majority of our members are male.



Source: PPF

1 In June 2020 the Administrative Court ruled in the case of *Hughes v Board of the Pension Protection Fund 2020 EWHC 1598* that this cap is unlawful. The Court of Appeal upheld this ruling in August 2021. We are currently in the process of uplifting compensation for members who were previously capped, but the compensation in payment shown in the table above has not yet been adjusted to dis-apply the compensation cap for every member.

PPF compensation 2023/24 continued

Figure 11.3 | Distribution of members receiving compensation, and compensation in payment, by annualised compensation level

Around 90 per cent of members receiving compensation are paid less than £10,000 a year. However, such compensation makes up around 55 per cent of the total paid out.

Source: PPF

Figure 11.4 | Distribution of deferred members and compensation by annualised compensation level

Around 95 per cent of deferred members have annualised compensation of less than £10,000. This compensation makes up around 70 per cent of the total annual deferred compensation.

Source: PPF

Figure 11.5 | Status of members receiving compensation

	Number of records in respect of members receiving compensation	Percentage of total population	Annualised compensation (£m)	Percentage of total annualised compensation
Members	169,827	83%	895	88%
Dependants	35,004	17%	117	12%
Total	**204,831**	**100%**	**1,012**	**100%**

Source: PPF

Note: annualised compensation is less than compensation paid in the year to 31 March 2024 as the latter includes cash sums taken upon retirement, and takes account of member movements (e.g. deaths or retirements) over the year.

PPF compensation 2023/24 continued

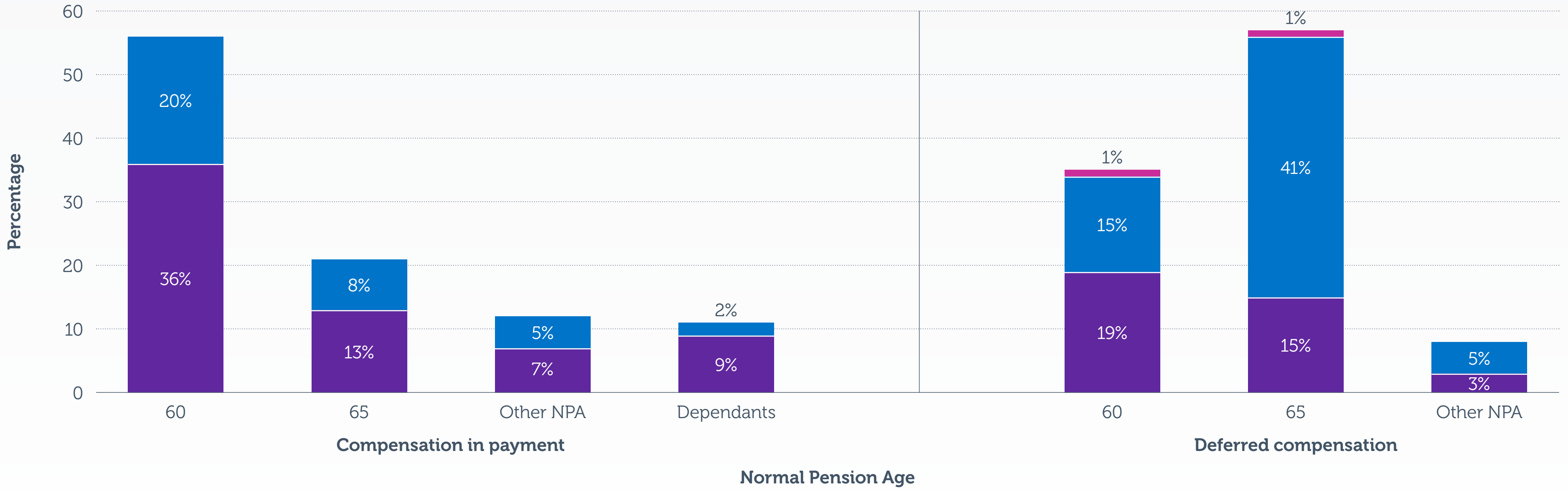
Figure 11.6 | Distribution of members and compensation accrual type by Normal Pension Age (NPA)

For members receiving compensation, the majority of compensation was payable from an NPA of 60, whereas for deferred members the majority is payable from 65. Around two thirds of compensation in payment was accrued before 6 April 1997.

The PPF pays increases in payment to compensation accrued after 5 April 1997. This is based on the Consumer Prices Index (CPI) and is capped at 2.5 per cent a year. Compensation increases in deferment also in line with CPI – capped at five per cent a year for compensation accrued before 6 April 2009 and at 2.5 per cent a year for compensation accrued after 5 April 2009.

	NPA						
	Compensation in payment				Deferred compensation		
Compensation accrual period	60	65	Other NPA	Dependants	60	65	Other NPA
Before 6 April 1997	36%	13%	7%	9%	19%	15%	3%
After 5 April 1997*	20%	8%	5%	2%	15%	41%	5%
After 5 April 2009					1%	1%	0%
Total	**56%**	**21%**	**12%**	**11%**	**35%**	**57%**	**8%**

* Before 6 April 2009 for deferred members.



● Before 6 April 1997 ● After 5 April 1997 (before 6 April 2009 for deferred members) ● After 5 April 2009

Source: PPF

Figure 11.7 | Annualised compensation by UK region

The largest shares of compensation in payment go to members living in the North East and South East of England.

● Percentage of compensation in payment ● Percentage of deferred compensation

Source: PPF

12 PPF risk developments

This chapter looks at the risks to our funding position and to our ability to deliver on our mission.

Summary

This chapter contains information on our approach to funding and how we manage the risks that could have a material impact on our future funding levels.

Our Funding Strategy Review 2022[1] sets out our approach to financial risk management. In the first ('growth') phase of the PPF's journey, we had a strategic objective to build our financial strength by growing our reserves. Our position is now sufficiently strong to allow us to move into our second ('maturing') phase, where our objective has shifted to 'Maintaining our Financial Resilience'. To meet this objective, we have a set of funding priorities, and the strategic decisions we take are guided by how our reserves compare to these priorities.

To help us understand how our future funding may evolve, we use a stochastic simulation model which considers how our own funding, and that in the universe we protect, may change over time. This modelling is then used to help inform our future investment and levy strategy.

Over the last two years, we have seen an increase in the likelihood of us meeting our funding objective of 'Maintaining our Financial Resilience'. The main reasons behind this have been the significant improvement in scheme funding, largely driven by increased gilt yields, plus increases in the PPF's own reserves. However, unless schemes have hedged to 'lock-in' these gains, they may be reversed if yields fall.

Although the general economic environment remains volatile, our modelling indicates that we are well placed to cope with the financial uncertainty. Our sensitivity testing shows that our Financial Resilience Test is expected to be met even under stressed input assumptions. Our funding framework will help guide our strategic decisions as our funding, and that of the schemes we protect, evolves.

Our approach to risk management

Like other financial institutions, we assess our risks using a comprehensive enterprise risk management framework, so we focus on the risks that could have the greatest impact. We seek to understand our financial risks by using modelling, including sensitivity testing and scenario analysis, to help us understand the potential impact from changes to those risks in the future.

We consider our risk under three broad headings – Strategic and Funding, External Environment, and Operational. In *The Purple Book* we focus our attention on the components of those risk types with material financial implications for us. Therefore, we do not cover here operational risks to which we are exposed.

Strategic and Funding: risk from our existing assets and liabilities

These risks are similar to those faced by other financial institutions, including pension funds and insurance companies. They include the risks of managing our own investment portfolio, and demographic risks.

We will accept risk where it adds value to do so or where the costs of hedging are disproportionate. We hedge our liabilities closely for changes in inflation and interest rates. We also use a bespoke investment strategy which seeks to protect and prudently build reserves to provide cover for future risks – in particular, the risks of increased life expectancy and future claims. The non-hedging part of the portfolio is designed such that there is a very low risk that it will produce a negative cumulative return over a five-year horizon. We accept short-term volatility of our funding level and our response to such volatility is consistent with our long-term funding strategy.

We are willing to accept longevity risk and other demographic risks. However, we would consider transferring these risks to a third party if they are significant and hedging costs are reasonable. Reflecting the importance of life expectancy in our future cashflows, we use granular estimates of life expectancy based on socio-economic and geographical factors.

Both investment and demographic risks are potentially impacted in the long term by climate change. Therefore, this is an important consideration in our Responsible Investment strategy, and we are developing approaches to incorporate climate risk into our modelling and improve our understanding of the potential impact on our risk exposure.

External Environment: risk from the schemes we protect

This is the risk that we exist to protect – schemes being underfunded when their sponsors fail, possibly resulting in claims. We cannot control this risk so we must accept it. But we monitor this risk to understand any financial implications it may have for us.

TPR monitors scheme funding and sets guidance for DB pension schemes to reduce the risk of underfunding. We liaise with TPR regularly to gain a shared understanding of developments that may change the risk of claims on us. In addition, we monitor key information about employers who sponsor the schemes we protect including, where available, public credit ratings. When monitoring claims risk, we consider both the potential size of a claim and the likelihood of it occurring.

The Purple Book shows that risk in the DB universe has reduced over time and that claims on us have been decreasing. That said, some schemes remain underfunded and/or are underhedged and continue to run high levels of investment risk. Therefore, the risk of further claims on us remains.

Our funding strategy

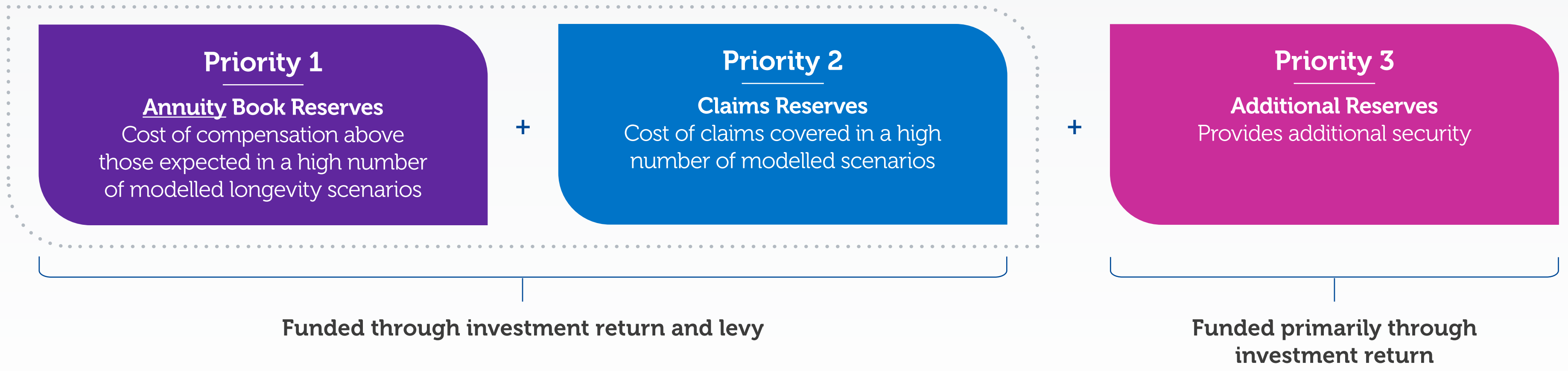
We published our current Funding Strategy Review in September 2022. We plan to carry out a detailed review of our strategy every three years, with annual checkpoints in intervening years to assess where we are relative to projections.

Recognising our own financial strength and the changing profile in the universe of schemes we protect, we have entered what we have called the maturing phase of our funding journey. During this phase our central expectation is that we will see fewer claims than we have seen historically, and that those that do occur will have less impact on our funding.

During this phase, our funding objective is 'Maintaining our Financial Resilience'. We define Financial Resilience as having a high level of confidence of being able to pay compensation to both our current and future members in full, without reliance on future investment returns and levy.

To help us achieve our objective we have three main funding priorities, as illustrated in the diagram below. When taking strategic decisions on investment and levy, the Board considers how our reserves compare with the level required to meet these priorities.

Target reserves during the PPF maturing phase



The Annuity Book Reserves and Claims Reserves are designed to cover all but the worst longevity and claim scenarios. These reserves will be funded through both investment return and levy. Any Additional Reserves built up will be funded primarily through investment return.

1 https://www.ppf.co.uk/-/media/PPF-Website/Public/Years/2022-09/Funding_Strategy_Review_2022.pdf.

PPF risk developments continued

We consider our Financial Resilience Test to be met when we have sufficient reserves to cover both Priority 1 and Priority 2 reserves, i.e. longevity reserves for our current members (Priority 1) and reserves for future claims (Priority 2). However, our aim is to build Priority 3 reserves, i.e. additional reserves above those needed to meet the Financial Resilience Test, to provide better protection for both our current and future members. As the universe we protect matures and gets smaller, it will be difficult to raise a material levy. By building additional reserves through our investment returns our aim is to reduce the risk of having to go back to ask levy payers to contribute more in the future.

Summary of modelling

To understand the level of protection afforded by our reserves and how likely we are to meet our Financial Resilience Test in the future we use our Long-Term Risk Model (LTRM), a stochastic simulation model. This model runs a million different scenarios to project what the future may look like, allowing for future claims, levies, investment returns, changes in economic conditions, and changes in life expectancy. Like any complex modelling exercise, the projections are subject to significant uncertainty and our success ultimately depends on some factors outside of our control.

No model can perfectly predict the future, and the LTRM is no exception. The base case projections are based on a series of assumptions, which we continually refine to reflect how experience and expectations develop over time. We assume that our broad approach to levy will not change. Our investment strategy is assumed to remain unchanged. Schemes are assumed to transition gradually to a low-risk investment strategy, and to keep receiving deficit-reduction contributions (DRCs) if they are underfunded.

The fan chart in figure 12.1 (right) shows the recent history of our reserves up to 2024, followed by LTRM projections of how they might develop in the future. Projections are shown for the period up to 2035, which is the earliest we expect to move from our current maturing phase to our run-off phase. The chart shows that, based on our current strategy, in most scenarios our reserves are expected to rise as investment returns plus levy exceed claims.

Figure 12.2 (right) shows the history of claims as well as the distribution of modelled claims on the fund beyond 2024. This is the risk our Priority 2 reserves are designed to protect against. As at 31 March 2024, we had sufficient reserves to meet our Financial Resilience Test, and we have a high likelihood of this also being true at the time of our next planned detailed review in 2025. The chart also shows that in many of our modelled scenarios we can expect the growth in our cumulative claims to be modest, which is a defining feature of the maturing phase. We do, though, still have some scenarios where significant claims occur.

Figure 12.1 | Projections of our reserves

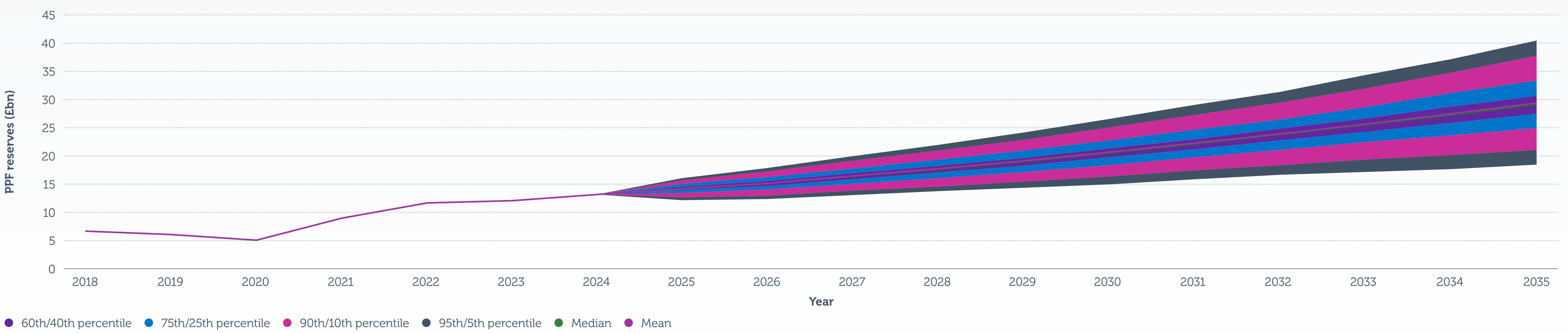
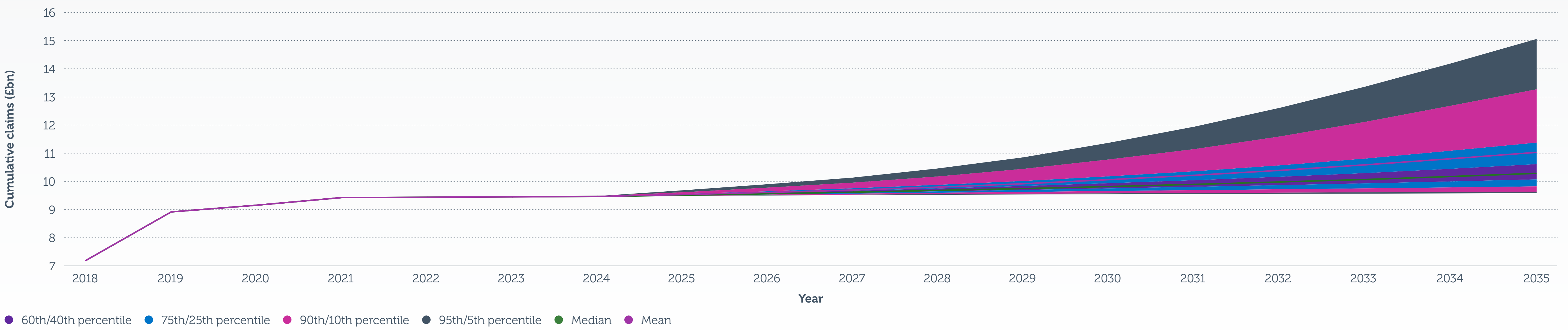


Figure 12.2 | Projections of cumulative claims



1 https://www.ppf.co.uk/-/media/PPF-Website/Files/Reports/Climate-Change-Report-2023-24.pdf.

PPF risk developments continued

Risks not allowed for in our modelling and possible future changes in the risk landscape

Like all financial services institutions, we are exposed to possible changes in the external environment, which could have an impact on our finances but over which we have no or limited influence. At this stage it would not be appropriate to incorporate all such factors into our 'base case' modelling and our funding targets, but they are considered as part of our sensitivity testing and scenario analysis. The following paragraphs discuss some of the most material risks we are currently monitoring.

Climate risk: We consider climate change as a systemic risk, which can affect the value of our investments across the short, medium and long terms. We have engaged with the Paris Aligned Investment Initiative (PAII) and other initiatives to further best practice in management and disclosure of these risks. As a supporter of the Task Force on Climate-related Financial Disclosures (TCFD), we commit to reporting on our climate-related governance, strategy, risk management, and metrics and targets. Our dedicated TCFD Climate Change Report[1] shares this information in depth. Climate change could, over the horizon of our projections, have a significant impact on the level of claims we receive. This is due to impacts on the value of scheme asset portfolios and on sponsor insolvency risk. Increased requirements on pension schemes for disclosure are likely to drive changes in approach to investment. Also, life expectancy risk is potentially affected by climate change, which could impact the reserves we need to meet our Financial Resilience Test. We continue to review and develop approaches to help us understand the potential impact of climate change in our risk exposure.

Legislative and regulatory changes: On 29 July 2024, following extensive industry consultation, TPR laid the final draft DB Funding Code before Parliament. The new code will be used for funding valuations with effective dates on or after 22 September 2024. Its aim is to increase the security of the benefits that have been promised to members of DB schemes, which also has the impact of reducing the likelihood and scale of claims on us. On the other hand, there is the possibility that future legislative or regulatory changes could increase the risk to us. For example, legislation that introduces increases to PPF compensation accrued prior to April 1997, or regulatory change which has the effect of encouraging schemes in the DB universe to run on for longer, scale back de-risking, and allow more surplus extraction. Schemes open to new accrual and new members represent some of our largest claims risks, therefore any changes that particularly affect such open schemes could have a significant impact on the PPF.

Macro-economic changes to the economy: Interest rate and inflation volatilities have been very high over the last four years. Rises in interest rates over this period have resulted in dramatic improvements in scheme funding levels generally. However, disruption and instability in the gilts market since Autumn 2022 may have had some negative impacts on funding for some schemes, for example through forced selling of gilts or other assets when reducing leverage. Furthermore, unless schemes have changed their investment strategies to protect recent funding gains, these gains may be reversed by falling yields in the future.

We will not be able to capture the full impact in our modelling until schemes submit new s179 valuations and investment strategy data via their scheme returns. This is because the data we receive does not always fully capture the extent to which schemes have leveraged holdings of gilts and it is likely that some schemes will have made material changes to their investment strategy during this period.

Commercial consolidators: Interest in consolidator vehicles continues to advance. However, the shape and size of the market are relatively unclear. So, at this stage, we have made no specific adjustments in our financial modelling. In July 2024, TPR updated its guidance for consolidators and guidance for prospective ceding trustees and employers. Based on these, we expect that the risk consolidators pose to our ability to meet our funding objectives will be limited. At the time of writing, only one consolidator has been authorised by TPR and only two transactions have completed. Other firms hoping to operate in this market have come and gone, contributing to the uncertainty over the long-term scale of the market.

Sensitivities

The LTRM output has been tested for sensitivity to a range of modelling assumptions. The sensitivity tests aim to provide an insight into how the model outputs might be affected if future experience is not as expected relative to the base case, best-estimate, assumptions.

A selection of the sensitivity scenarios tested this year is summarised in the table below. Under each of these scenarios, we are comfortable that our current strategic decisions would be unchanged. The largest impact was from the scenario in which we modelled a deterioration in scheme funding by 10 percentage points. In this scenario, we still expect our Financial Resilience Test to be met. Scenarios involving policy changes are not illustrated but could have significant impacts.

Worsened funding levels for the schemes we protect	Scheme s179 funding levels deteriorate by 10 percentage points as a result of a decrease in asset values, with DRCs left unchanged from the base case
Increased insolvency risk	Transition probabilities for all credit rating downgrades are scaled up by a factor of 1.1 at all future times
Higher inflation	Annual inflation increased by one percentage point above the base case rates at all future times, with yields left unchanged
Lower returns on growth assets	Growth asset returns are one percentage point a year lower (than in base case) at all future times

Appendix – data and scheme funding calculation

Sources of data

The information used in Chapters 03 to 07 and Chapter 12 of this publication comes from three primary sources, as described below.

1. **Scheme returns provided to TPR**

   Most of the analysis in this year's publication is based on new scheme returns issued in December 2023 and January 2024 and returned by 31 March 2024.

2. **Voluntary form reporting**

   Electronic forms are available on TPR's website so pension schemes can provide data regarding contingent assets, valuation results on an s179 basis, DRCs and the s179 valuation results following block transfers. More information on DRCs and contingent assets is given in Chapter 08 (Risk reduction).

3. **Sponsor failure scores**

   From the levy year 2021/22, D&B have provided us with scores for calculating the PPF levy using the PPF-specific model. This is a statistical model, developed using observed insolvencies among employers and guarantors of DB pension schemes. More detail on the model can be found on our website: https://www.ppf.co.uk/levy-payers.

   The starting point in establishing the insolvency risk element of the risk-based levy is normally the annual average of a scheme's D&B monthly scores. The average monthly score is then matched to one of 10 levy bands and the corresponding levy rate is used.

Chapter 06 also uses some data from public sources, as noted underneath the relevant figures. The data used in Chapters 9 (PPF levy 2023/24), 10 (Claims and schemes in assessment) and 11 (PPF compensation 2023/24) are derived from the PPF's business operations. The data featured in Chapter 08 is mostly taken from a variety of public sources, as noted underneath each figure.

The PPF-eligible DB universe and *The Purple Book 2024* dataset

The PPF covers certain DB occupational schemes and DB elements of hybrid schemes. Some DB schemes will be exempt from the PPF, including[1]:

- 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;
- schemes with fewer than two members; and
- schemes which began to wind up, or were completely wound-up, before 6 April 2005.

Historical datasets

A dataset is collated for each edition of *The Purple Book*, 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, original datasets have been much larger and the increased coverage made only a small difference. Accordingly, we make comparisons with previous publications as follows:

- *Purple Books* 2006 and 2007 – extended dataset.
- *Purple Books* 2008 to 2023 – original dataset.

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 benefit accrual, where existing members can no longer accrue new years of service; and
- schemes that are winding up.

As 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 *The Purple Book 2006*, 40 per cent of members were in the open category and 25 per cent were categorised as 'part open'. The 'part open' category included a significant number of hybrid schemes for which the DB element was closed. In *The Purple Book 2007*, the 'part open' category was removed and the percentage of schemes classified as open increased compared to *The Purple Book 2006*. Many hybrid schemes which had previously identified themselves as 'part open' now identified themselves as 'open'. In *The Purple Books 2008* and *2009*, we analysed the largest 100 schemes (by membership) in the hybrid category separately, so we could adjust the information provided in the scheme returns 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 *The Purple Book 2010* we have been able to adjust hybrid statuses to 'closed' where DB provision is not available to new members.

Since 2013, those hybrids which no longer admit new DB accruing members are categorised as 'closed to new members'. In addition, where those schemes have no active DB membership we assume that the scheme is closed to future accrual. For pure (i.e. non-hybrid) DB schemes, up until *The Purple Book 2023* we simply took the scheme status as stated in the scheme returns. For *The Purple Book 2024*, scheme status has been subject to enhanced data validation by TPR[2] – we have also restated 2023 figures in the relevant places in *The Purple Book 2024* Chapter 03 (Scheme demographics), as indicated by the label '2023 updated'. 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.

Scheme funding

As in previous editions of *The Purple Book*, the bulk of our analysis uses funding estimates on an s179 basis. This is, broadly speaking, what would have to be paid to an insurance company to take on PPF levels of compensation, and estimates of this are what we use in the calculation of scheme-based levies. The analysis in Chapter 04 (Scheme funding) uses s179 data submitted by schemes on TPR's Exchange system by 31 March 2024 and we roll these asset and s179 liability values forward to 31 March 2024 in the following way. There are refinements to this methodology compared to that used in previous *Purple Books*.

- We roll forward asset values using the submitted asset split information and the change in benchmark asset indices over the period.
  - We have expanded the range of indices we use here to better match the more granular asset categorisation captured in the scheme returns. (This is a departure from the methodology used in the PPF-levy calculations, which previously we have matched.) This roll-forward methodology will generally only allow for unfunded LDI arrangements, such as interest rate swaps, to the extent that the exposure is reflected in the asset split information submitted. However, our updated modelling includes some broad assumptions about short-duration bond indices not reducing the hedging of long-liability duration schemes.
  - We add DRCs that have been submitted by schemes for levy purposes[3] to the asset values submitted in s179 valuations. These DRCs represent the contributions made by the sponsoring employer between the s179 valuation date and 31 March 2024 after allowing for deductions for items such as additional benefit accrual and benefit augmentations.
  - Additionally, from *The Purple Book 2024* (and included within 2023 restated figures), we make allowance for benefits paid out and contributions made over the roll-forward period, including for DRCs since those certified in the scheme return. In some cases we produce our own estimates and compare these to ONS data, in others we use ONS data directly.
- We roll forward the s179 liability to a particular date using a range of reference gilt yields and convert to the version of the s179 assumptions in force at that date. In the case of *The Purple Book 2024*, effective date of 31 March 2024, this is version A11 as came into effect on 1 May 2023.
  - Similarly to assets, the liability roll-forward now includes an allowance for benefits paid out, as well as for the estimated cost of new benefit accrual.
  - In addition, the liability calculations now allow for actual inflation differing from expected and PPF drift[4] over the roll-forward period.

Here is a high-level breakdown of the impact of the updates as at 31 March 2023, by broad category of refinement:

£bn	Assets	s179 liabilities	Net funding position	Aggregate funding ratio
31 March 2023 as published in *The Purple Book 2023*	**1,404.4**	**1,045.5**	**358.9**	**134.3%**
Cashflows/new benefit accrual	-77	-74	-3	+2.3pp
PPF drift[4]/actual inflation compared to expected over roll-forward period	–	+60	-60	-7.9pp
Refined asset roll-forward, including wider set of market indices	-89	–	-89	-8.6pp
31 March 2023 restated	**1,238.4**	**1,031.5**	**206.9**	**120.1%**

Regardless of these refinements, our roll-forward methodology remains approximate in nature and the modelling necessarily features a number of estimations and judgements.

As in previous years, PPF actuaries have also produced full buy-out estimates – i.e. based on original scheme levels of pension – of the funding position for *The Purple Book 2024* dataset. These estimates are calculated in the same way as described above except an approximate allowance is made for the difference between the compensation the PPF would pay members and the benefit levels paid by schemes (according to the scheme benefits data submitted on Exchange).

1 For a more comprehensive list see 'eligible schemes' on our website.

2 For more information on this validation, see TPR's 2023 DB Landscape report: https://www.thepensionsregulator.gov.uk/en/document-library/research-and-analysis/occupational-defined-benefit-landscape-in-the-uk-2023.

3 For more information see the 2023/24 DRC appendix and guidance on our website: https://www.ppf.co.uk/levy-payers/levy-2023-24.

4 The definition of PPF drift can be found on page 42 of the glossary.

Glossary

Active member
In relation to an occupational pension scheme, a person who is in pensionable service under the scheme.

Annuity
Contract through which payments of a portion of a scheme's liabilities are met by a third-party insurance company.

Assessment period
The time when a scheme is being assessed to see if the PPF can assume responsibility for it.

Buy-out basis
The level of coverage a scheme's 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.

Cash balance pension scheme
The scheme provides a cash lump sum upon retirement, rather than a pension for life.

Claims
When an employer of a DB pension scheme becomes insolvent and the pension scheme does not have sufficient assets to buy out the liabilities with an insurance company. The DB scheme members then become members of the PPF.

Closed (to new members)
The scheme does not admit new members. Existing members can continue to accrue pensionable service/benefits.

Closed (to new benefit accrual)
The scheme does not admit new members. Existing members no longer accrue pensionable service/benefits.

Commercial consolidators and superfunds
Pension vehicles established to consolidate the DB assets and liabilities of unconnected employers, with no link to the original employer.

Dead company
A company that is dissolved.

Deferred member
In relation to an occupational pension scheme, a person (other than an active member or pensioner) who has accrued rights under the scheme but is not currently accruing or being paid benefits under the scheme.

Deficit
A shortfall between what is assessed as needed to pay a scheme's benefits as they fall due (this is the scheme's 'liabilities') and the actual level of assets held by the scheme.

Deficit-reduction contribution (DRC)
A one-off (or irregular) contribution made by a scheme sponsor to a pension scheme to reduce the level of deficit.

Defined benefit (DB)
Benefits are worked out using a formula that is usually related to the members' pensionable earnings and/or length of service. These schemes are sometimes also referred to as final salary or salary-related pension schemes.

Defined contribution (DC)
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.

Demographic risk
This is a financial risk to the PPF that members, on average, have different population-based factors than expected, for example the proportion married or age difference between members and their spouses.

Dun & Bradstreet (D&B)
A provider of company insolvency scores used by us for PPF levy calculations. D&B categorise companies according to a system of scorecards. More information is available in the levy rules on the PPF website.

Enterprise risk management framework
The process of identifying and documenting particular events or circumstances relevant to the organisation's objectives (threats and opportunities), assessing them in terms of likelihood and magnitude of impact, determining a response strategy, and monitoring process.

Financial Resilience
Defined by us to mean having a high level of confidence of being able to pay compensation to both our current and future members in full, with no support required from investment returns and levy.

Full buy-out
The cost of insuring a pension scheme in the private market. The discount rate applied to liabilities would generally be more prudent than the discount rate applied to section 179 valuations. The benefit assumed in private insurance is not subject to reduction for members under normal pension age and thus could be greater than PPF coverage.

Gilt yield
The yield, if held to maturity, of a government-issued bond.

Growth assets
Assets that are expected to give a return in excess of the gilt yields, but have more risk of underperformance, for example equities or property.

Hedging asset
An investment that is made with the intention of reducing the risk of deterioration in a scheme's funding level.

Hybrid scheme or partial DB scheme
A scheme that can provide DB and DC benefits. An example of a hybrid scheme would be a scheme providing benefits on a DC basis but that is or was contracted out of the state scheme on either a Guaranteed Minimum Pension or Reference Scheme Test basis.

Insolvency risk
The risk that a borrower will have to close business because of its inability to service either the principal or interest of its debt.

Insurance company
Insurance companies provide a range of services to pension schemes, including:

- asset investment;
- asset management;
- buy-in and buy-out;
- investment advice and expertise;
- custodian facilities; and
- scheme administration services.

Insurance policy
Investment class: a pooled fund provided by, or a deposit administration contract purchased from, an insurance company.

Investment strategy
The set of rules, behaviours and procedures, designed to guide the selection of an investment portfolio after considering goals, risk tolerance, and future needs for capital.

Leverage
The use of borrowed capital to increase the potential return of an investment.

Liability Driven Investment (LDI)
Investment in assets so that changes in the value of the assets, in response to changes in expectations for future interest rates and inflation, match changes in the value of liabilities. Some LDI funds use leverage. This means greater exposure to changes in interest rates and inflation than would be possible with unleveraged assets such as physical gilts alone.

Longevity risk
A financial risk that pension scheme members on average live for longer than expected, and therefore more funds are required to pay pensions, or PPF compensation, for longer.

LTRM
Long-Term Risk Model.

Glossary continued

Maturing phase
This is the second stage in the PPF's journey, following the growth phase. Once we have reached a certain size, the impact of new claims reduces and our liabilities stabilise.

Net funding position
Sum of assets less sum of liabilities or sum of scheme funding positions. In a pool of schemes where schemes in surplus outweigh schemes in deficit there is an aggregate surplus.

ONS
Office for National Statistics.

Open scheme
The scheme continues to accept new members, and benefits continue to accrue.

Pensioner
A person who is currently receiving a pension from their scheme or from an annuity bought in the scheme trustee's name.

The Pension Protection Fund (PPF)
A statutory corporation run by the Board of the Pension Protection Fund, established under the Pensions Act 2004.

The Pensions Regulator (TPR)
The UK regulator of work-based pension schemes; an executive non-departmental public body established under the Pensions Act 2004.

PP
Percentage point.

PPF drift
The increase in the PPF's potential exposure as a result of a delay in a pension scheme entering a PPF assessment period. PPF drift happens because over time the protected liabilities of a scheme are likely to increase. More specifically, it arises from:

- an increase in PPF benefits, over and above those already anticipated – such as post-1997 increases in payment or inflationary increases before retirement – being paid where benefits in the occupational scheme are different to those in the PPF;
- annual increases being paid to members which are above those that the PPF might offer; and
- members reaching retirement age.

PPF levy
This is the annual amount that a pension scheme is charged by the PPF. It is composed of a scheme-based levy and a risk-based levy. It is similar to an insurance premium.

Protected liabilities
The estimated cost of securing members' benefits through buying annuities from an insurance company in an amount equal to the compensation that the PPF would pay under Schedule 7 to the Pensions Act 2004.

Reapplication
An application for entry to the PPF, having previously exited PPF assessment.

Repurchase agreement (repo)
The sale of a security combined with an agreement to repurchase the same security at a higher price at a future date.

Responsible investment
An investment strategy that incorporates environmental, social and governance factors in investment decisions and asset ownership.

Risk-based levy
See PPF levy. Calculated on the basis of a pension scheme's deficit and insolvency risk of the sponsoring employer.

Roll-forward
The concept of estimating the value of assets and liabilities at a date later than that of their initial valuation, without doing a full new valuation. This is generally based on movements in various reference market yields and indices over the period in between the initial valuation and the later estimate, and can ignore several factors over a period of time; for example, member movements, benefits paid out from a scheme, or new benefits accrued.

Run-off phase
This will be the final stage of the PPF's journey. This will be the phase in which our liabilities fall as our membership matures.

Scheme-based levy
See PPF levy. Calculated on the basis of section 179 liabilities and the number of members 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 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;
- has rights because of 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 upon death are also not included.

Section 179 (s179) valuation
To calculate the risk-based pension protection levy the Board of the Pension Protection Fund must take account of scheme underfunding. To achieve consistency in determining underfunding, schemes can complete a PPF valuation (section 179). This valuation will be based on the level of the scheme's assets and liabilities. 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 2004.

Stress scenario (in the LTRM)
Changes simultaneously applied to a number of assumptions in the LTRM on asset returns, bond yields and insolvency experience.

Stochastic model
Distributions of potential outcomes are derived from a large number of simulations (stochastic projections) which reflect the random variation in the inputs.

Stressing and smoothing
Transformations applied to assets and liabilities. Details of these are available in the levy rules and transformation appendix on the PPF's website.

Swap
Investment: a contract calling for the exchange of payments over time. Often one payment is fixed in advance and the other is floating, based on the realisation of a price or interest rate.

Technical Provisions (TPs)
The TPs are a calculation made by a scheme's actuary of the assets needed for the scheme to meet the statutory funding objective. These include pensions in payment (including those payable to survivors of former members) and benefits accrued by other members and beneficiaries, which will become payable in the future.

Trustee
A person or company, acting separately from a scheme's employer, who holds assets in trust for the beneficiaries of the scheme. Trustees are responsible for making sure that the pension scheme is run properly and that members' benefits are secure.

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 the 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.

A scheme must be wound-up in accordance with the scheme rules and any relevant legislation.

Charts and tables

Pension Protection Fund

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