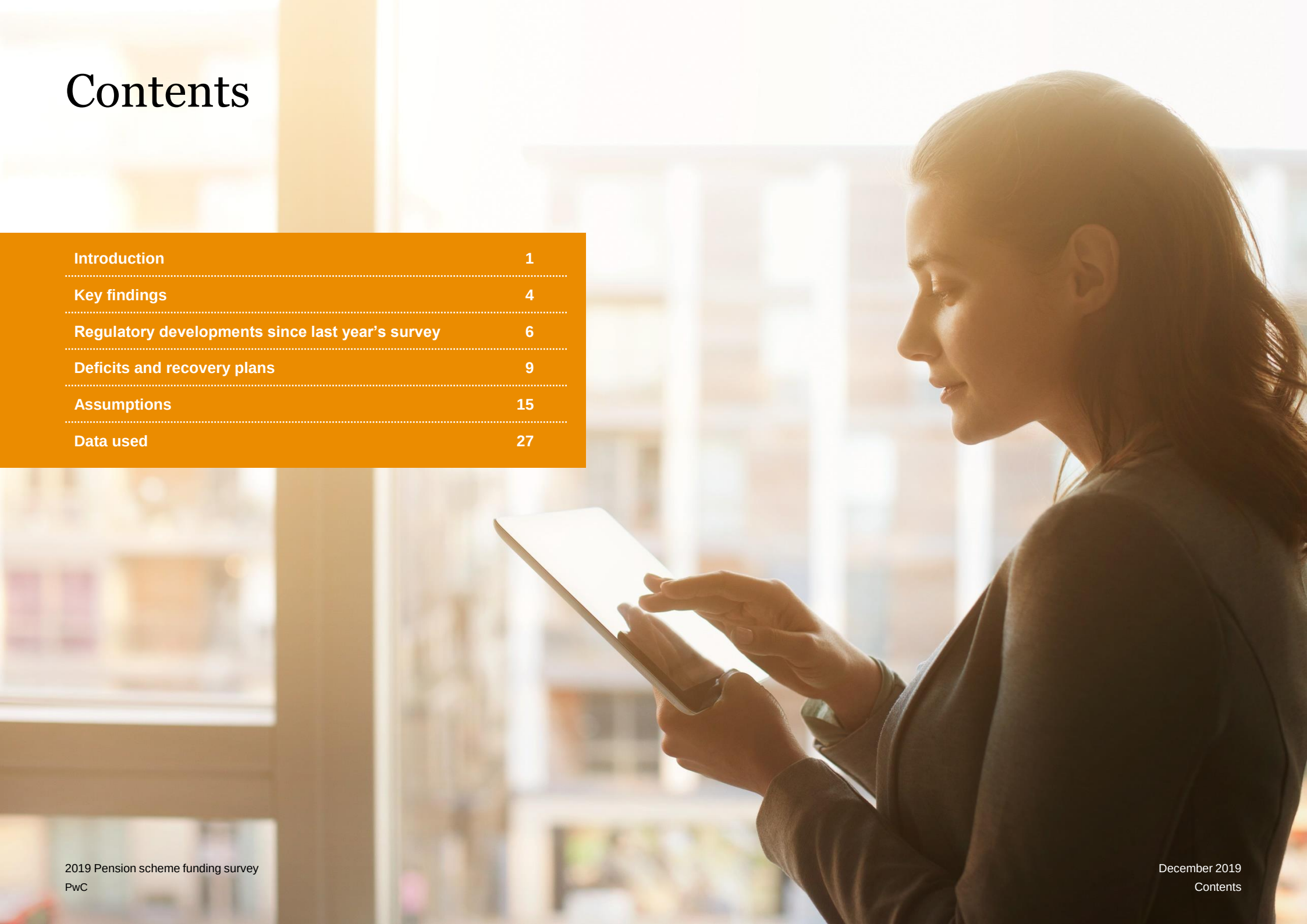
2019 Pension scheme funding survey

December 2019

pwc

Contents



1 Introduction

Executive summary

Pension Scheme Funding Survey 2019

Recent years have seen further increased regulatory scrutiny for pension schemes and their corporate sponsors, in an environment of economic uncertainty and volatility. Our analysis brings out a number of key themes which reflect the challenges facing schemes and the actions they are taking to respond.

Assumptions are converging with long-term plans and recovery plans are shortening

- Schemes are increasingly putting in place a formally agreed long-term funding plan or adopting technical provisions assumptions which resemble a long-term funding target. There are still many informal arrangements for a long-term funding plan in existence however these are being increasingly formalised at valuation dates, as a result of the discussions between trustees and corporates in order to agree future strategy.
- Specifically schemes are adopting a discount rate assumption which trends to a lower rate consistent with a longer-term funding target. The vast majority of schemes are monitoring both long-term funding targets and their Technical Provisions assumptions on a regular basis, reflecting the importance of considering both.
- Schemes are increasingly considering the long-term outcomes for their fund and many are undertaking detailed end-game planning.

Assumptions on life expectancy align with changes in CMI models

- Mortality improvements have been slower than previously anticipated, leading to a reduction in life expectancy with each release of the annual CMI projections model since CMI 2014.
- Reflecting this, pension scheme life expectancy has fallen for triennial valuations over recent years for both pensioners and non-pensioners.

Scrutiny over payments by corporates

- The regulator is taking a more proactive approach than it has in the past and will be applying greater pressure on companies to justify dividend payments. There is also greater public attention on corporate dividend payments in light of recent high-profile pensions cases. Companies will need to put forward robust arguments to justify dividend payments and should be able to explain how they will impact other parties. Regular dialogue, and consultation, with pensions advisors will help shape these arguments.
- There is no prescribed 'formula' or approach to take with dividend payments; companies need to have good governance in place to ensure that robust discussions take place around the long-term objectives for schemes and the impacts on all stakeholders are considered.

Future indexation of benefits is uncertain

- There is a potential long term impact on RPI and CPI inflation indices as the UK Statistics Authority has expressed a clear preference(1) for the CPIH measure. In addition, the announcement in September 2019 indicated that the government may consider an earlier transition to CPIH. The Bank of England estimates that the proposals would reduce RPI by around one percentage point on average.

(1) https://www.statisticsauthority.gov.uk/news/uk-statistics-authority-statement-on-the-future-of-the-rpi/

2019 Survey – Data and approach

Published in December 2019, this survey is a snap-shot of emerging trends from 245 scheme funding valuations covering total assets of £219bn.

This survey covers a wide range of schemes with asset values of less than £1m to over £45bn and represents 28 different firms of advisers.

This survey benchmarks many key assumptions and comments on the direction of travel towards long-term funding targets following the issue of The Pensions Regulator's ('TPR') 2019 Annual Funding Statement and 2018 White Paper.

Our scheme funding survey is unique in the market:

- It covers a wide range of advisers so does not represent a particular 'house view'.
- It compares trends and themes identified in TPR's 2019 Annual Funding Statement(1), and further developed in the Regulator's Scheme Funding Analysis 2019(2), incorporating PwC insights from more up to date information.
- It covers schemes where the valuation is still in progress so reflects current trends, and is based on more up to date information than TPR's publications.

(1) https://www.thepensionsregulator.gov.uk/-/media/thepensionsregulator/files/import/pdf/db-annual-funding-statement-2019.ashx

(2) https://www.thepensionsregulator.gov.uk/en/document-library/research-and-analysis/scheme-funding-analysis-2019

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Key findings

Key findings of the survey

Overall position

- **80%** of schemes in our sample had a funding deficit.
- Position had improved in **51%** of cases since their previous valuation.
- On average Technical Provisions are set at **69%** of 'solvency' liability.

How technical provisions are set

- Average discount rates are set at approximately **0.8%** p.a. above 20 year gilt yields.
- **58%** of schemes adopt a discount rate which reflects the expected derisking of scheme assets as the membership ages. The most common long term 'derisked' assumption is **0.5%** p.a. above gilt yields.
- **56%** of schemes assume that RPI inflation will be lower than the market implies, with the most common deduction to market-implied RPI inflation being **0.1%** p.a. to **0.2%** p.a. for those who make an adjustment.
- The difference between RPI and CPI inflation assumptions has remained constant since our 2018 survey, with this gap predominantly being **0.8%** p.a. to **1.0%** p.a. for schemes with 2016 – 2018 valuation dates. There is an increase in the proportion of 2018 valuations using a gap of **more than 1.0%.**
- Our survey shows a trend of schemes adopting mortality assumptions that result in lower life expectancies, and of the most recent funding valuations (as at 2018) we observe only a minority of schemes have an average life expectancy over **90**.

How are schemes being financed

- Where deficits had increased, **44%** of schemes have deferred their target date of full funding by 3 or more years, which is consistent with our 2018 survey.
- The average recovery plan length remains at around 9 years, with lengths varying from **1** to **24** years.
- **79%** of schemes allowed for asset outperformance over the discount rate assumption in their recovery plan. Of these, **77%** assumed asset outperformance over the discount rate of more than **0.5%** p.a.

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Regulatory developments since last year’s survey

Regulatory considerations

TPR 2019 annual funding statement

Key features

TPR published in March 2019 its latest Annual Funding Statement, which sets out guidance on how TPR expects companies and trustees to ensure 'fair treatment' DB pension schemes. Summarised below are they key elements of the statement:

TPR expectation/statement	Potential impact
• Trustees should take an **'integrated' approach to risk**, taking into account **employer covenant, investment risk and funding strategy.** Risks arising from scheme maturity should also be taken into account. • TPR segments schemes into 10 groups when setting out its expectations. This segmentation is based on covenant strength, strength of funding assumptions, length of recovery plan and scheme maturity. As Schemes become more mature, TPR expects funding at a level where maturity risks are appropriately managed. This means more focus on demonstrating the ability to recover from downside risk and less scope to extend recovery plan dates.	• Covenant leakage, e.g. dividend payments, is a key concern for TPR leading to a push for shorter recovery plans. • The number of contingent funding solutions such as **asset-backed contributions** may increase as they are explicitly accepted by TPR as a means of improving member security and avoiding trapped, or locked-in surplus. • Schemes with high levels of transfers could also see their maturity accelerating and therefore need to plan how they will address risks.
• TPR gives guidance that it expects schemes to set a **Long Term Funding Target** and be able to **evidence** that their shorter term investment and funding strategies are aligned with meeting this target. • TPR expects a **long term funding target to be agreed** between the Trustees and Employers.	• Long term funding targets reflect the policy set out in the 2018 White Paper. • TPR scrutiny of consistency of Schemes with long term funding targets. • Trustees and Employers are expected to agree on a long term funding target, this will include a time frame and funding and investment strategies to work towards this target. • Increased focus on the Trustees and Employers being able to evidence that they are actively working towards their agreed long term funding target.
• Recovery plan lengths are expected to be of an appropriate length given the maturity of the scheme and strength of the employer. • Where covenant is strong the recovery plan length should be generally significantly shorter than seven years.	• TPR have observed an average recovery plan length of approximately **7 years**. Schemes will have to consider where they sit relative to the average with regards to maturity profile and covenant strength to determine a recovery plan length TPR will consider acceptable. • TPR will contact Schemes with existing recovery plan lengths considered too long to set out their expectations for the coming valuation.
• TPR continues its expectation that trustees and sponsors will keep to the 15-month statutory deadline for agreeing valuations. However, the statement notes TPR would prefer trustees **miss this deadline if the alternative is a 'bad deal'**.	• TPR enforcement could come into effect where deadlines are breached without prior management or TPR engagement, unless genuine reasons are demonstrated on why it could not be be finalised.

Dividends

TPR focus

TPR 2019 funding statement

TPR is becoming more concerned with covenant leakage and in particular, the **equitable treatment of shareholders and pension schemes.**

Triggers for TPR focus in this area include several recent corporate failures where trustees had been unable to secure higher levels of cash funding in the years leading up to the failures.

A lens which TPR is looking at equitability through is the level of dividends vs deficit recovery contributions.

The 2019 TPR Annual Statement signalled the key themes expected to feature in the new Funding Code being consulted on from late 2019 and coming in to force 2020/21. Specifically,

- Where dividends and other shareholder distributions exceed DRCs, TPR expect a strong funding target and recovery plans to be relatively short (TPR note that the average recovery plan is 7 years)
- If the sponsor covenant is considered weak, TPR expect DRCs to be larger than shareholder distributions unless the recovery plan is short and funding target is strong
- If the employer is weak and unable to support the scheme, TPR expect the payment of shareholder distributions to have ceased

Further, TPR have stated that, regardless of employer strength, the pension deficits should be paid off as soon as possible. They also acknowledged that affordability is also a consideration in determining deficit recovery plans.

Companies and trustees can expect scrutiny from TPR in this area. PwC work on 2018 and 2019 valuations to date has observed this in practice with greater emphasis on dividends in agreeing funding arrangements.

Broader corporate context

- Dividend levels are a useful metric and there are a range of factors that influence Company dividend policies which in turn are influenced by broader corporate factors.
- Full context of business operations of corporates encompass measures such as EBITDA, cash, growth, debt payments in addition to dividend payments.
- Holistic consideration of these metrics, instead of in isolation, can help to understand what would be appropriate for pension scheme funding.
- Variation across companies means a ‘one size fits all’ approach to measuring equitability between corporate stakeholders is likely to be overly simplistic and could result in suboptimal outcomes for Trustees and Companies.
- For example, companies differ in their capital structures with some more heavily weighted towards debt or equity financing. Differences such as these will influence company decision making such as where and what it spends cash on.

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Deficits and recovery plans

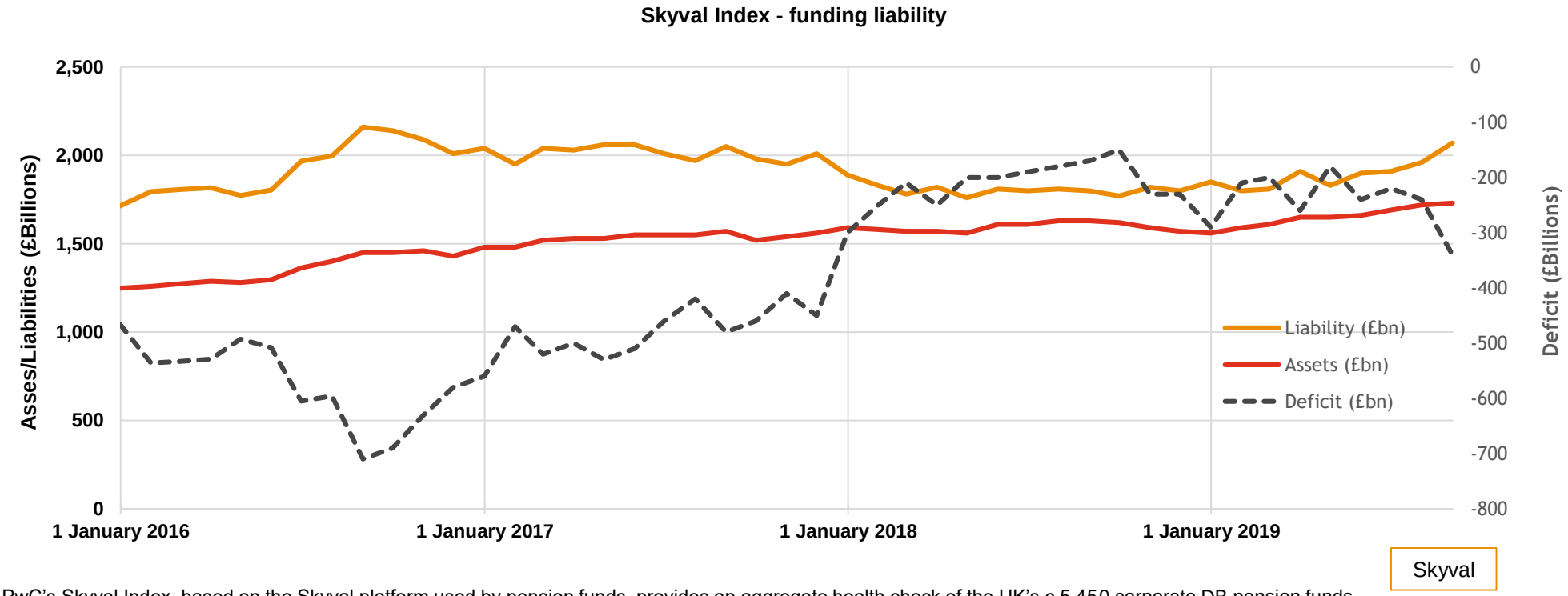
Context – Market movements

Skyval Index

PwC's Skyval Support Index provides a measure of aggregate deficits in DB pension schemes across the UK. Whilst this does not reflect the specific Technical Provisions assumptions of each scheme, it does show the overall movement in position of pension deficits over time.

Deficits have generally improved since mid 2016 until late 2018. More volatility has then been observed over 2019 with a deterioration in deficits seen over the second half of 2019 as yields on high-quality bonds fell to their lowest ever level, reflecting a high degree of market uncertainty. These increases have only been partially offset by increases in asset values over the same period.

The recent volatility has highlighted the impact that a valuation date may have on the deficit and the cash funding required by employers. For example, at the end of March 2019, total deficits were c.£260bn, which had increased to c£340bn by the end of August 2019.

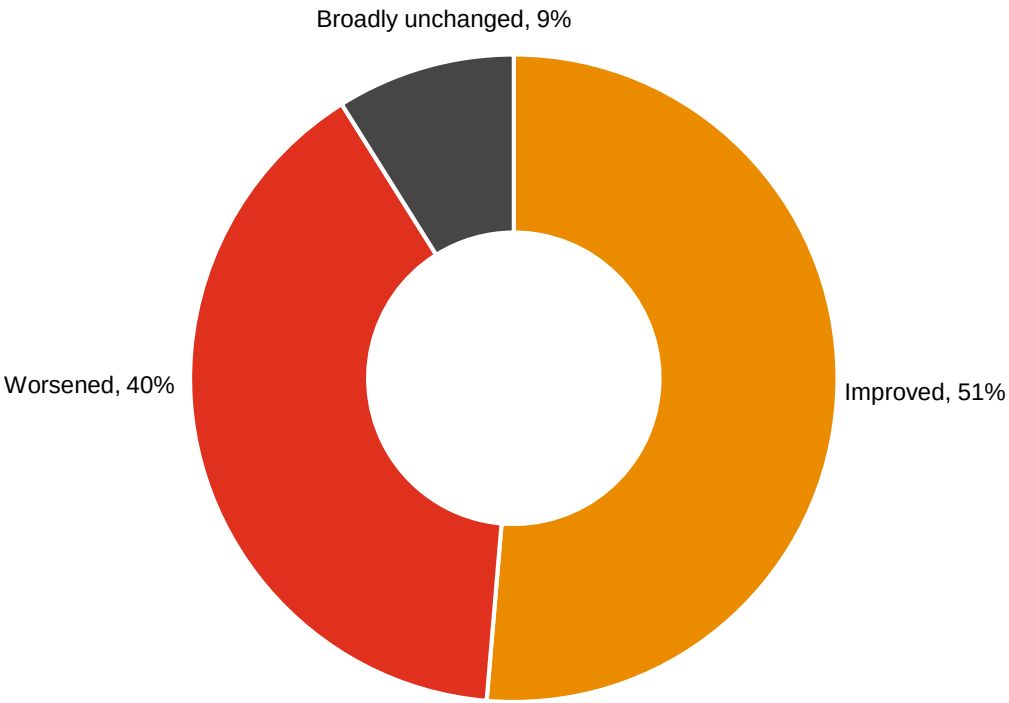


PwC's Skyval Index, based on the Skyval platform used by pension funds, provides an aggregate health check of the UK's c.5,450 corporate DB pension funds.

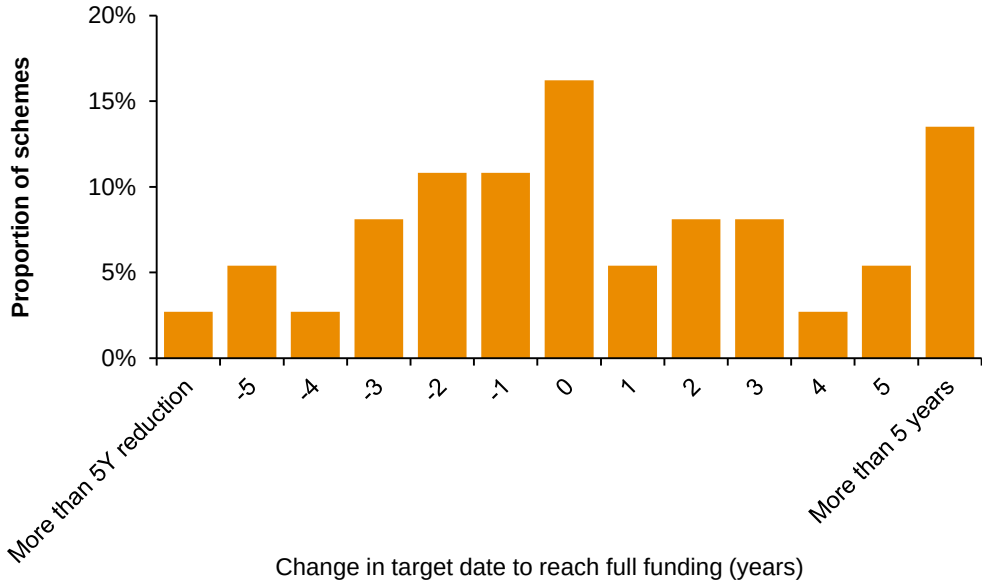
Funding positions and dealing with deficits

80% of schemes in our sample had a funding deficit at their latest valuation, compared with 83% of schemes in our 2018 survey. As shown below, the position had improved in **51%** of cases since their previous valuation.

How have scheme funding positions changed from the previous valuation?



Change in target date to reach full funding (across all schemes that had a deficit at the most recent two valuations)



Where deficits have increased, **44%** of the schemes deferred their target date to achieve full funding by 3 or more years (compared to **48%** of schemes in our 2018 survey and **63%** of schemes in our 2017 survey).

Trustees and sponsors of current and future valuations will need to take note of TPR's clear expectations of the treatment of schemes as set out in its 2019 Annual Funding Statement ensuring that recovery plans should not be extended unless there is good reason to do so.

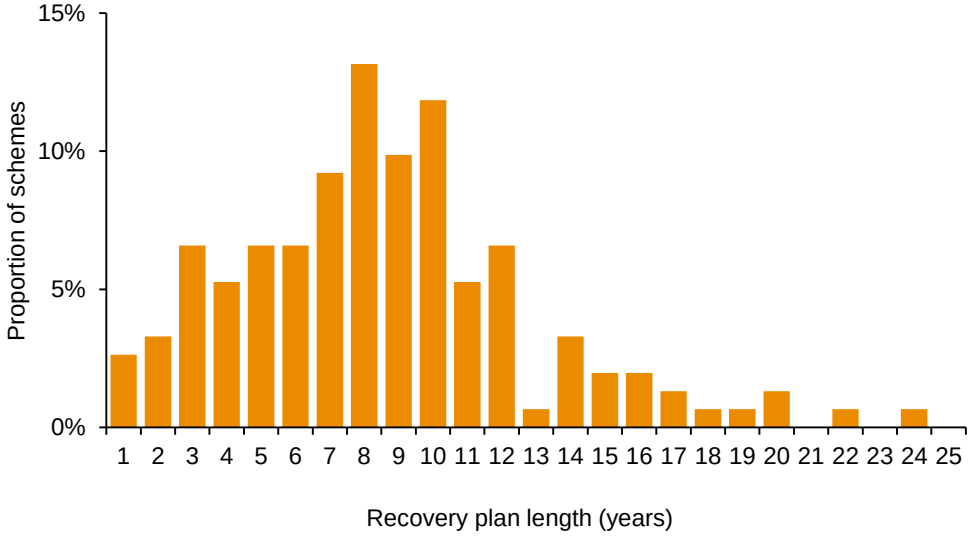
Recovery plan length and factors influencing it

The mean recovery plan length is consistent with our 2018 survey at around **9 years** – slightly longer than that reported in TPR's March 2019 scheme funding statistics of 7 years.

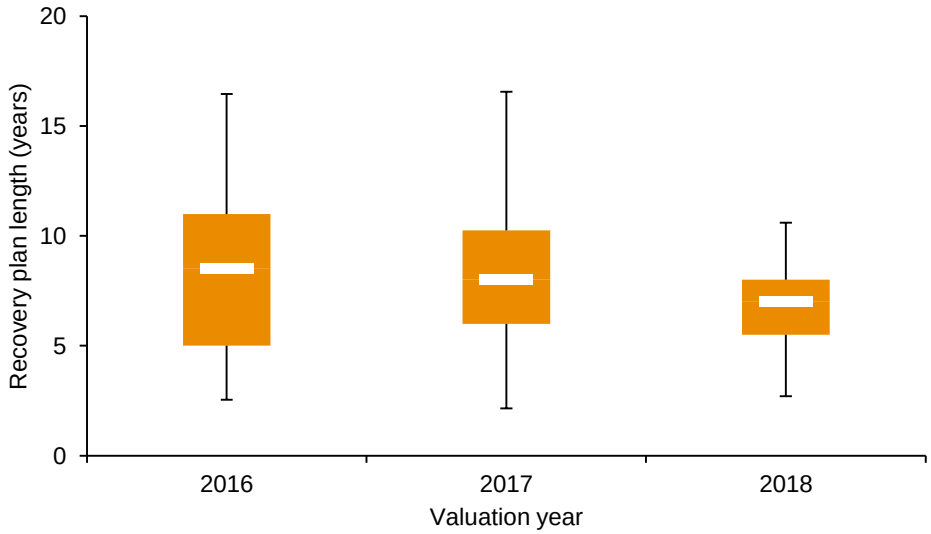
54% of recovery plans are between **8** and **15** years.

We are seeing a small **reduction in recovery plan lengths** for more recent valuations which aligns with the recent improvements in finding levels.

Recovery plan length



Recovery plan length by valuation year



Note: We have rounded up recovery plan lengths that are not full years.

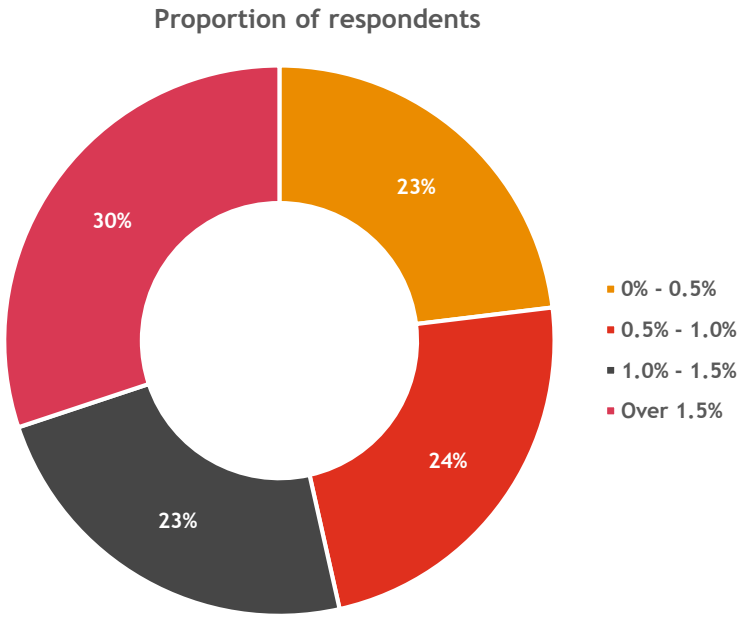
Recovery plan length assumptions

79% of schemes allowed for asset outperformance over the discount rate assumption in their recovery plan, compared to 75% at our 2018 survey.

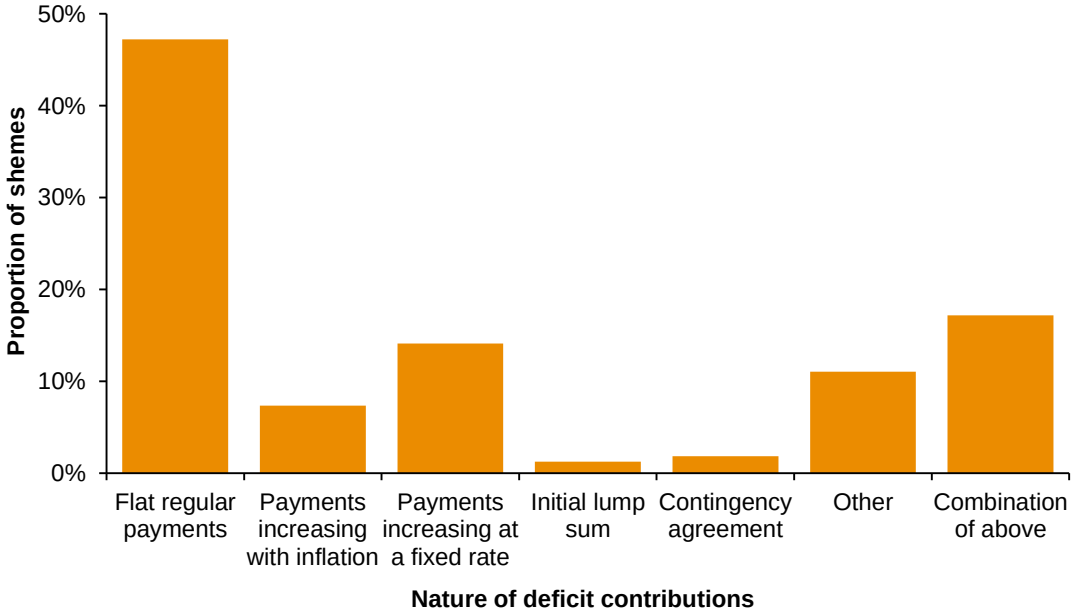
Of those that did, **77%** assumed asset outperformance over the discount rate of more than **0.5%** p.a. which is consistent with our survey last year.

Where schemes make an allowance for asset outperformance, additional contributions above those agreed to be fully funded on the Technical Provisions measure will be required to reach a scheme's long-term target unless assets meet the assumed outperformance over the discount rate.

For schemes that allow for asset outperformance, asset outperformance (p.a.) in recovery plan above TP discount rate assumption adopted



Profile of deficit contributions



Note: Some schemes indicated multiple deficit contribution profiles; therefore individual percentages do not sum to 100%.

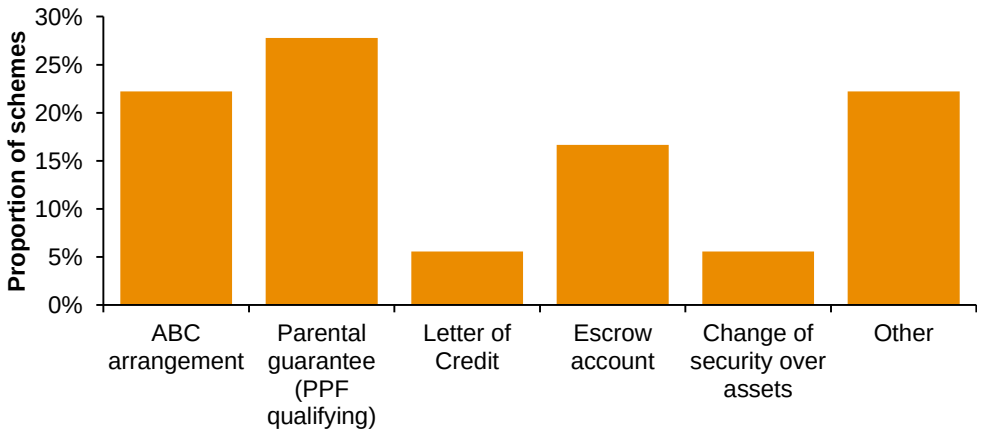
Disclosure of security in valuation reports

TPR's Annual Funding Statement emphasised that non-cash funding and alternative forms of security can be used to provide an alternative funding mechanism for scheme deficits. However there has been no material change observed in valuation reports, with around 10% of valuations indicating that they have put in place alternative forms of security.

TPR stated that if employers are concerned about irrecoverable surplus, they should consider escrow accounts, asset backed contributions, and contingency planning. We would therefore expect the number of schemes adopting alternative forms of security to increase in future.

In addition, market uncertainty and falling corporate bond yields throughout 2019 are likely to have made putting in place some form of security a more attractive proposition, as schemes are able to benefit from the longer-term certainty of funding from a parent company or the index-linked yield on long term property leases, for example.

Forms of security provided



Note: Some schemes indicated multiple forms of security; therefore individual percentages do not sum to 100%.

Forms of security provided – definitions

- **ABC arrangement** – Arrangement to fund a deficit in the scheme where the scheme is given an income stream derived from the sponsor's assets and security over the underlying assets.
- **Parental guarantee** – A guarantee from a parent company of the sponsor to provide a contingent payment to the scheme under defined circumstances. The guarantee can be PPF qualifying to reduce the PPF levy payable in respect of the scheme.
- **Letter of credit** – Security provided by the issuer of the letter of credit (e.g. from a bank) that payments to the scheme will be made if the sponsor is unable to make the payments.
- **Escrow account** – Assets are held by a third party and can be released to the scheme or the sponsor under defined circumstances.
- **Change of security over assets** – Security of assets held by the sponsor is passed to the scheme.

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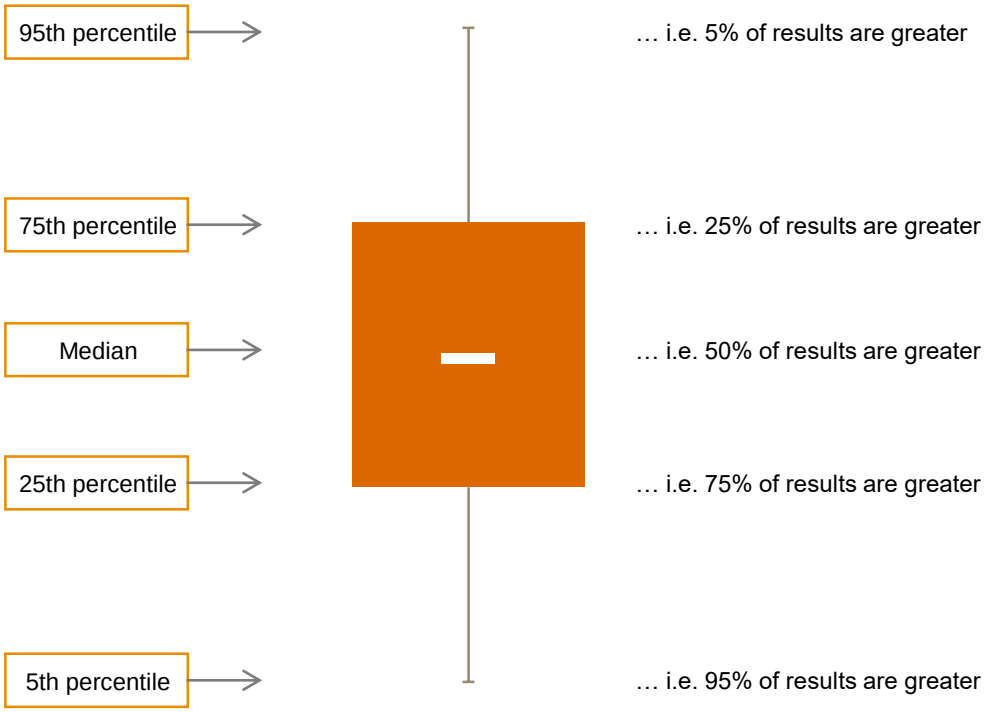
Assumptions

Comparing Technical Provisions to Solvency (1/3)

Key for box and whisker diagrams



The box shows the middle 50% of assumptions with tails extending to the 5th and 95th percentiles. The median value is marked by the central white line.

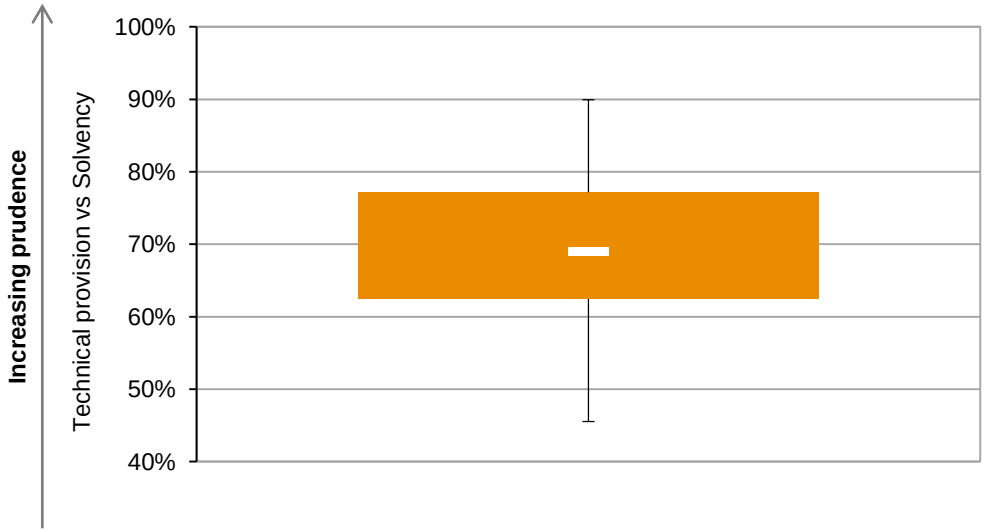
We have investigated the relationship between technical provisions and solvency liabilities by comparing the liabilities for the respondents on each measure.

Note that throughout this section, we have compared the technical provisions liability to the actuary's measure of solvency, which will vary between actuarial firms. As such, this data is intended as an indication of the strength of the technical provisions and should not be relied upon for any further conclusions given the distortions that can arise due to different in-house views on solvency measures.

This comparison provides insight into how schemes are progressing along their journey plan towards a potential end game alongside how prudent the underlying assumptions are.

The average proportion of the Technical Provisions to that of the solvency liability is **69%** with the most schemes ranging between **60%** to **80%**.

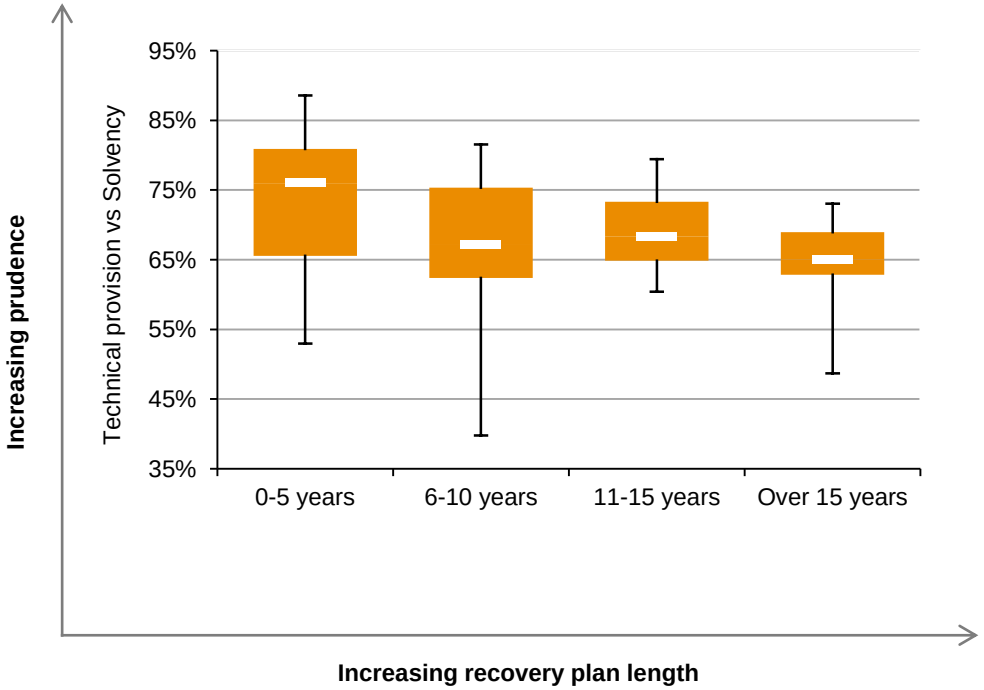
Technical provisions as a proportion of solvency liability



Comparing Technical Provisions to Solvency (2/3)

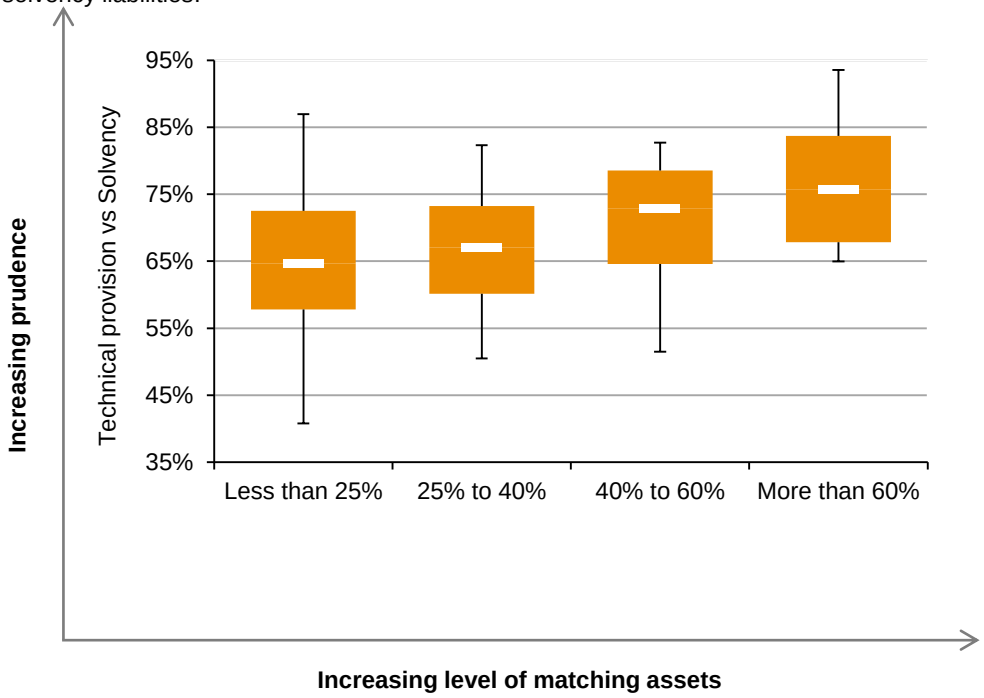
Technical provisions as a proportion of solvency liability by recovery plan length

Schemes where the technical provisions liabilities are a greater proportion of the solvency liabilities tend to recover their deficit over the shortest period.



Technical provisions as a proportion of solvency liability by level of matching assets

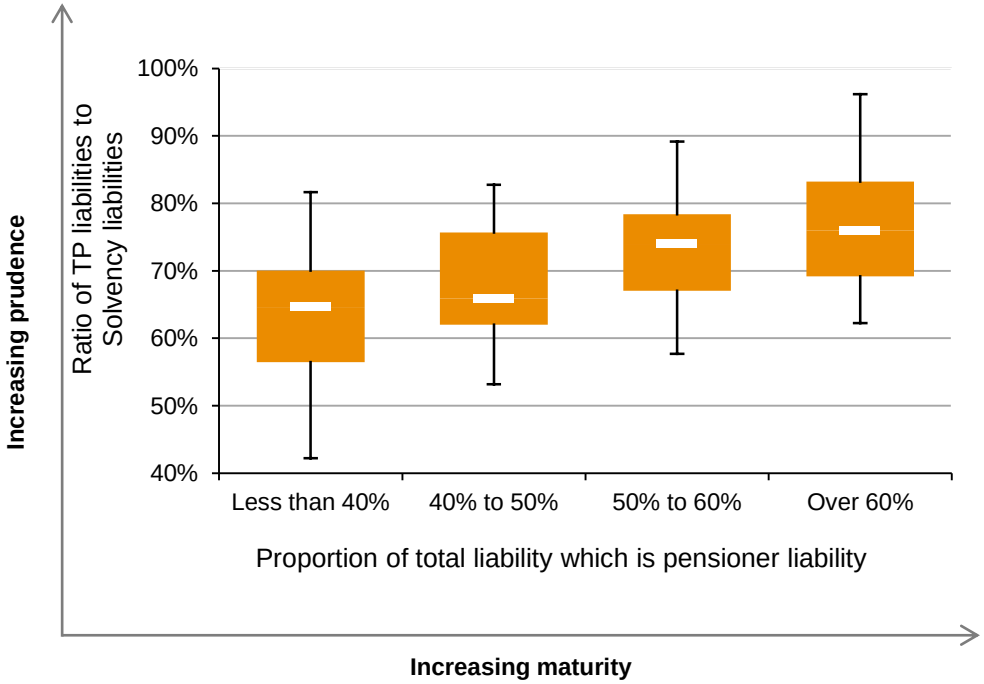
Schemes with highest proportion of matching assets (i.e. those assets whose cash-flows aim to mirror benefit payments when due), which reflects lower expected returns on assets, tend to have technical provisions liabilities that are a higher proportion of the solvency liabilities.



Comparing Technical Provisions to Solvency (3/3)

Technical provisions (TP) as a proportion of solvency liability to maturity

The technical provisions liabilities as a proportion of the solvency liabilities tends to increase as schemes mature. More mature schemes are less likely to be backed by return seeking assets and therefore make less allowance for outperformance over gilt/swap yields.



Comparing technical provisions to solvency liabilities

Schemes that are further along their journey to their long-term target will generally be more mature and will therefore hold a greater proportion of matching rather than growth assets. In addition, schemes that are further along this journey will be better funded with shorter recovery plans.

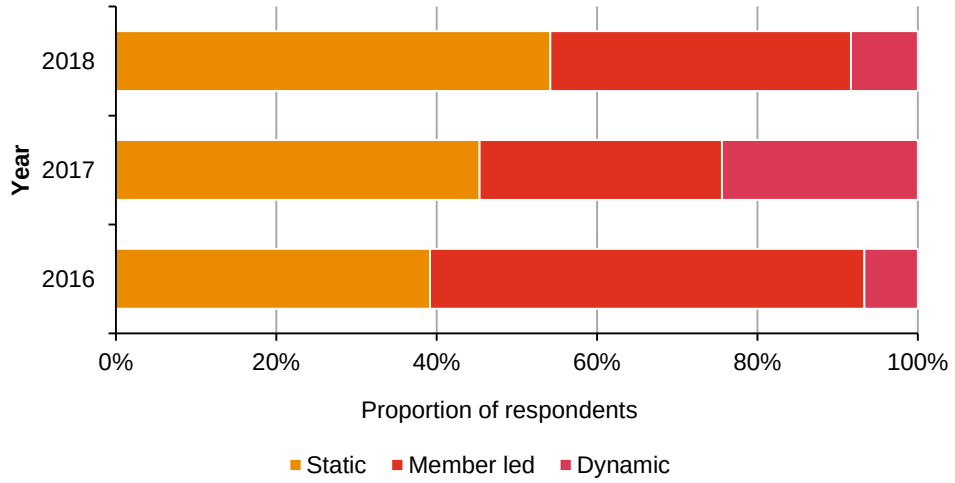
To some extent, these comparisons are therefore reflections of where a scheme is on it's overall journey rather than being reflective of a specific strategy.

Discount rate (1/3)

Typically discount rates reduce over time as the scheme matures. There are three broad approaches taken to allow for this:

1. **42% use a static approach:** discount rates that are either flat throughout a member's lifespan or are set as a flat margin above a yield curve.
2. **42% use a member-led approach:** discount rates that change when a member retires (i.e. a pre-retirement and a post-retirement discount rate).
3. **15% use a dynamic approach:** typically the discount rate reduces over time as schemes mature, and the discount rate reflects expected future derisking of the investment strategy. Of schemes that use a member-led or a static approach, **81%** derive this as a margin over gilt yields and **4%** derive this as a margin over swap yields (with the remainder adopting an alternative approach).

Approaches used to derive discount rate by valuation year

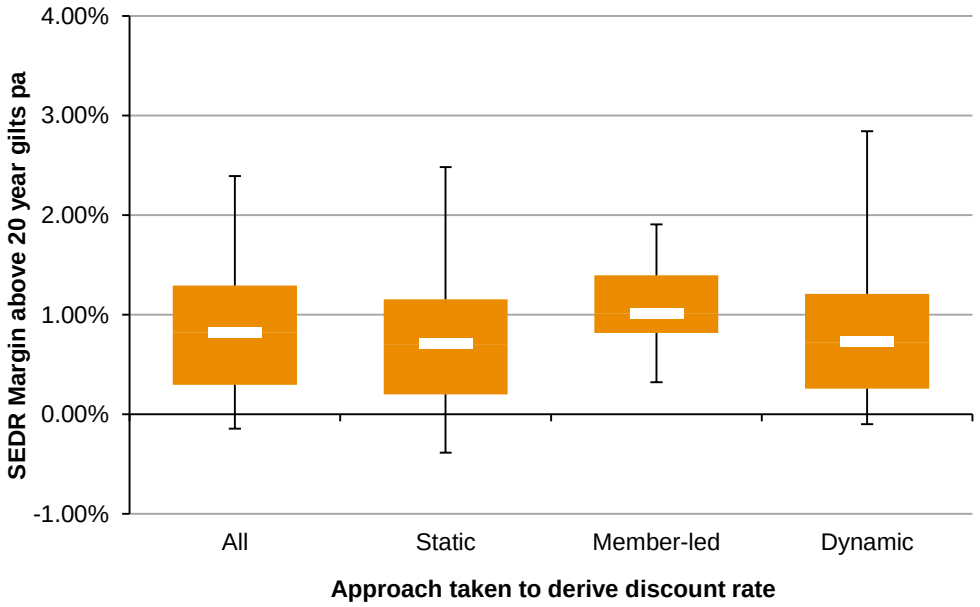


For comparison purposes, we have estimated a single equivalent discount rate ('SEDR') for each scheme that would broadly result in the same Technical Provisions. We have benchmarked these below as an outperformance over conventional 20 year gilt yields at each scheme's valuation date.

The average margin of single equivalent discount rates over conventional 20 year gilt yield is **0.8%** p.a.

For those schemes which set a static discount rate, the average margin over conventional 20 year gilts has a greater spread.

SEDR margin over 20 year gilts by approach



Note: We have used TPR's formula published in their 2019 Scheme Funding Analysis statistics (1) to determine the single equivalent discount rate for each scheme.

(1) https://www.thepensionsregulator.gov.uk/en/document-library/research-and-analysis/scheme-funding-analysis-2019/scheme-funding-analysis-2019-annex

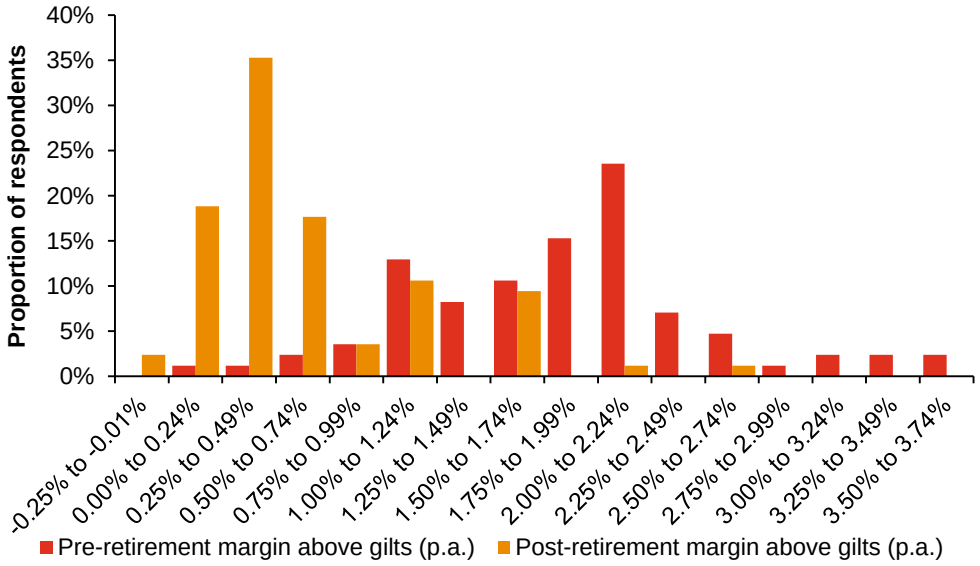
Discount rate (2/3)

Where valuations adopt a member-led discount rate

42% of schemes used a member-led approach when setting their discount rate assumption (i.e. a pre-retirement and a post-retirement discount rate).

We have benchmarked this assumption as a return over conventional 20 year gilt yields at each scheme's valuation date. The average pre-retirement margin over gilt yields is **1.9%** p.a. and the most common post-retirement margin over gilt yields is **0.5%** p.a.

Discount rate margin over conventional 20 year gilts (p.a.) for schemes that used a member-led approach

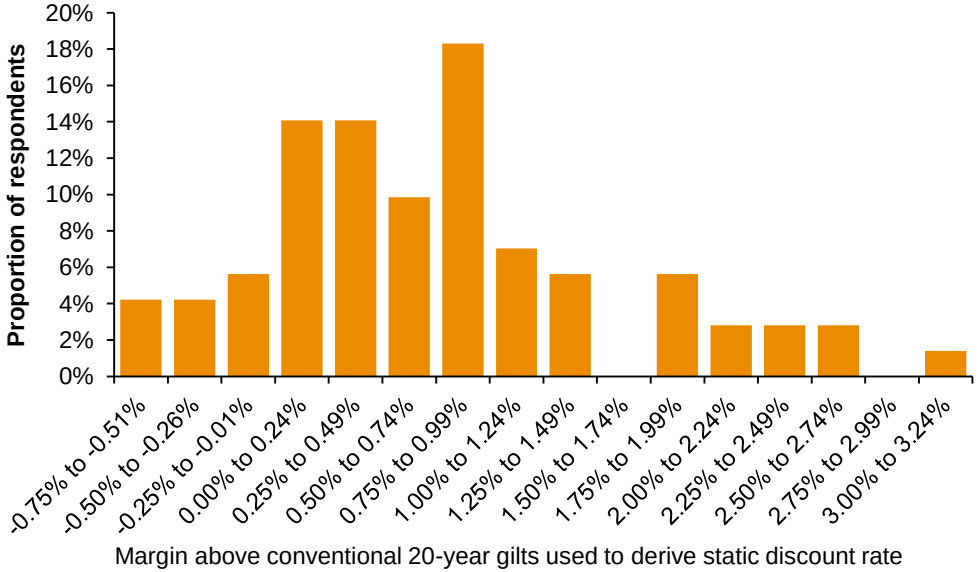


Where valuations adopt a static discount rate

42% of schemes used a static approach when setting their discount rate assumption.

We have benchmarked this assumption as a return over conventional 20 year gilt yields at each scheme's valuation dates. The average margin over gilt yields is **0.7%** p.a.

Discount rate margin over conventional 20 year gilts (p.a.) for schemes that used a static approach

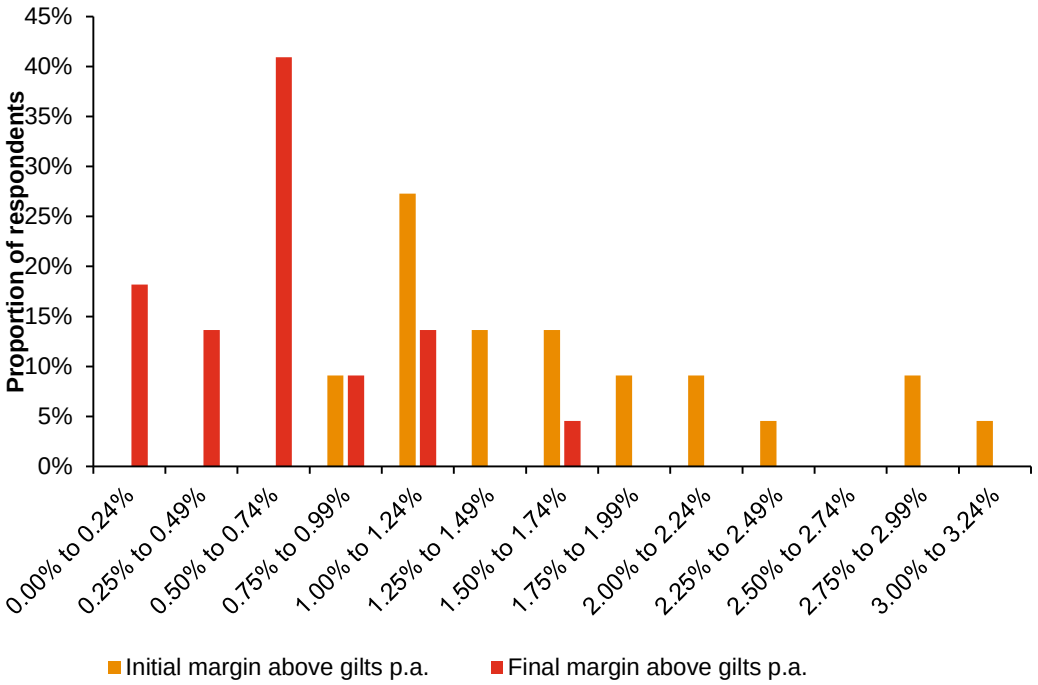


Discount rate (3/3)

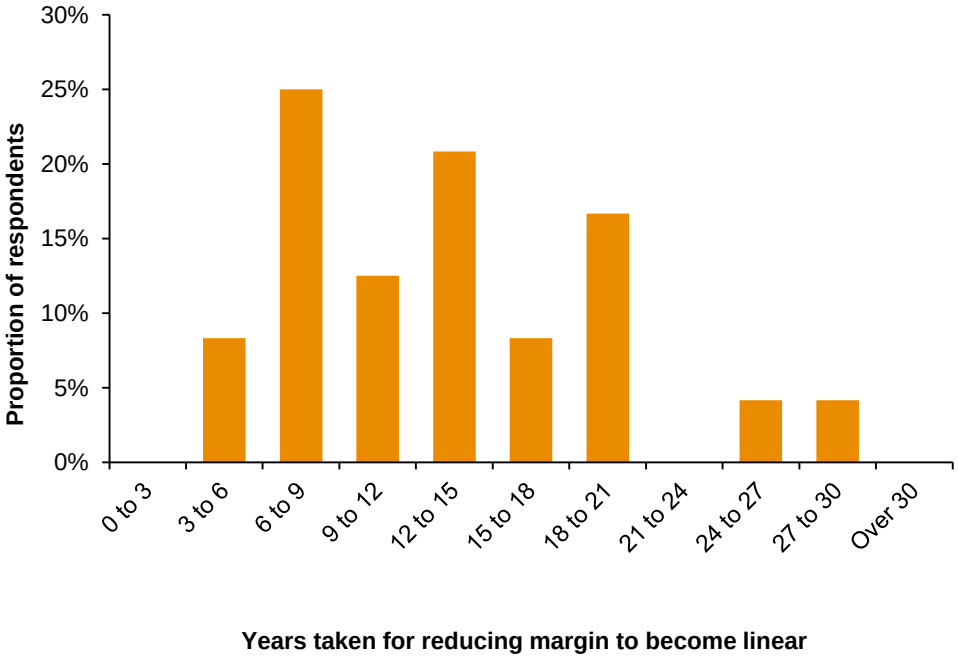
Where valuations adopt a dynamic discount rate

- **15%** of schemes used a dynamic approach when setting their discount rate assumption.
- The average initial margin over gilt yields or swap yields is **1.6% p.a. reducing to 0.5% p.a. over a period of 13 years**.

Discount rate: Margin above gilts or swaps (p.a.) for schemes using dynamic approach



Time period over which discount rates decrease for schemes that used a dynamic approach



Inflation

56% (51% last year) of schemes made a deduction to market-implied inflation to allow for distortions in the market, with an average deduction of **0.1%** p.a. to **0.2%** p.a. applied where an inflation risk premium ('IRP') is allowed for.

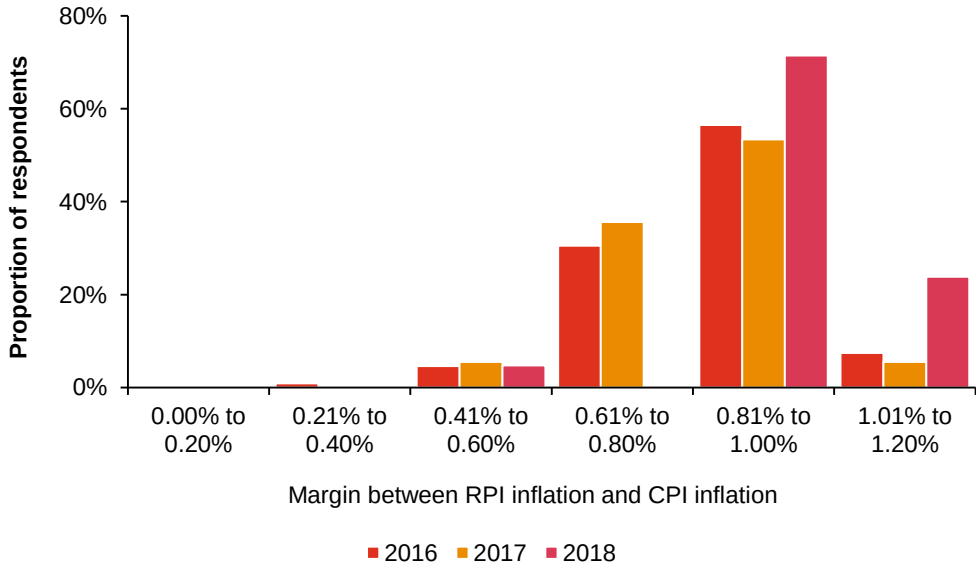
The proportion of schemes adopting an IRP has increased compared to last year where 51% of schemes allowed a deduction to market-implied inflation in our 2018 survey.

Inflation Risk Premium allowed for, if any

IRP selected	Proportion of respondents
No IRP	44%
IRP of up to 0.10% p.a.	17%
IRP of 0.11% to 0.20% p.a.	31%
IRP of 0.21% to 0.30% p.a.	8%

There is an increasing trend in the RPI to CPI inflation margin in 2018 valuation dates. Although a margin of between **0.8%** p.a. and **1.0%** p.a. is being used by the majority of schemes at each valuation date (**60%** of Schemes), there is a growing minority adopting a margin of more than **1.0%** p.a. at the 2018 valuation dates. We expect this may reverse given the government's September 2019 announcement on possible changes to RPI inflation.

Spread of margins adopted between RPI and CPI inflation p.a.



Note: The right-hand pie chart splits out further the 56% of schemes which adopt an IRP.

Mortality (1/3)

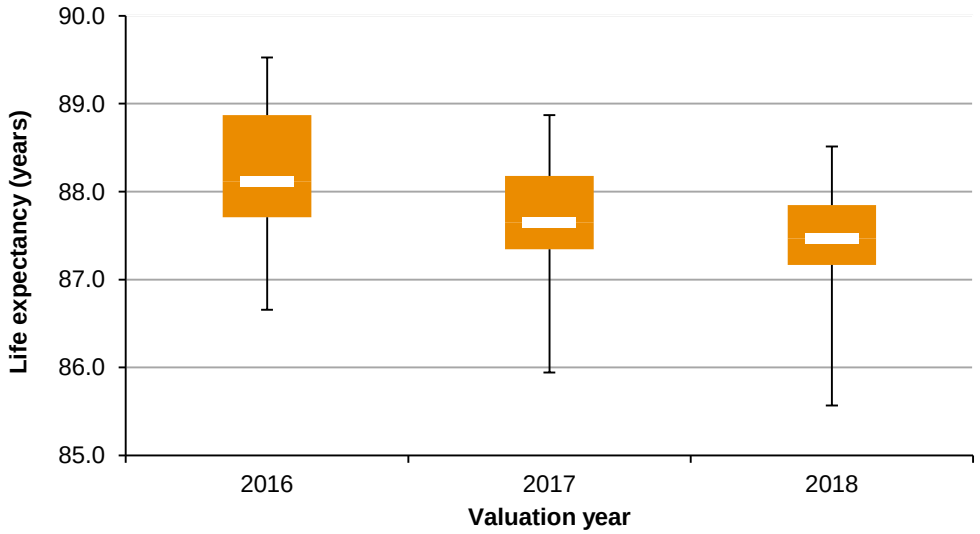
When setting a mortality assumption, actuaries make separate assumptions regarding:

1. An assessment of current mortality rates (the 'base table'); and
2. A projection allowing for any anticipated future improvements in life expectancies.

Our survey shows a trend of schemes adopting overall mortality assumptions that result in lower life expectancies for valuations in 2017 and 2018:

- Pensioner life expectancies have decreased for schemes with valuations between 2016 and 2018 with the average life expectancy decreasing by **0.6** years from **88.1** to **87.5** over the period.
- Non-pensioner life expectancies have decreased for schemes with valuations between 2015 and 2017 with the average life expectancy decreasing by **1.1** years from **90.2** to **89.1** over the period.

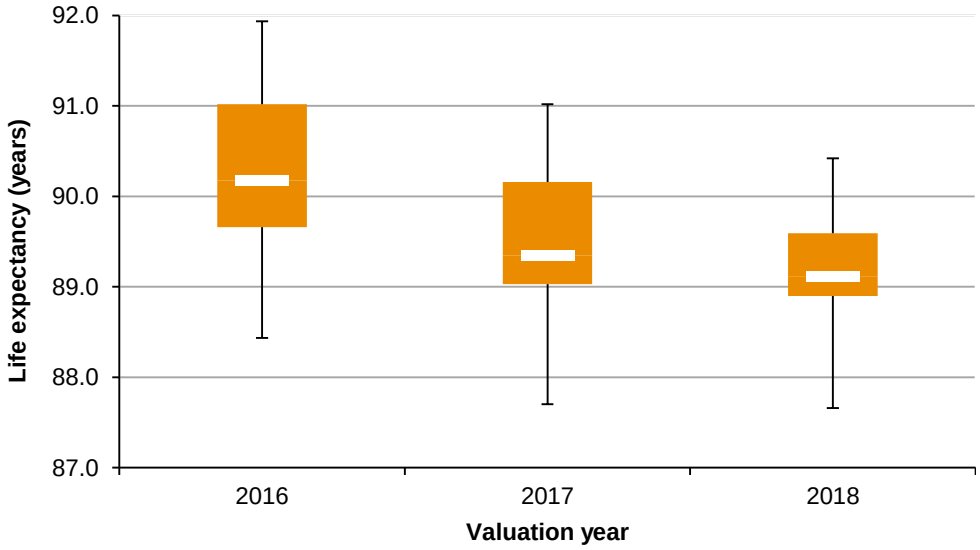
Life expectancies for a male retiring at age 65 in the year 2019, by valuation year



These trends are predominately driven by schemes with valuation dates in 2017 and 2018 adopting the most recent improvement tables, which reflect lower projected life expectations when compared to previous models. This is discussed on the following page.

In the 2019 Annual Funding Statement, TPR stressed the importance of Schemes aligning their recovery plans to a long-term funding target. Trustees therefore will be under greater scrutiny to ensure that the mortality assumptions selected are appropriate for this objective. This is against a backdrop of increased scrutiny across prior years' Funding Statements, in which TPR highlighted the need for mortality assumptions to be evidence-based. The onus is on Schemes to complete appropriate analysis and be able to justify the assumptions used.

Life expectancies for a male retiring at age 65 in the year 2039, by valuation year



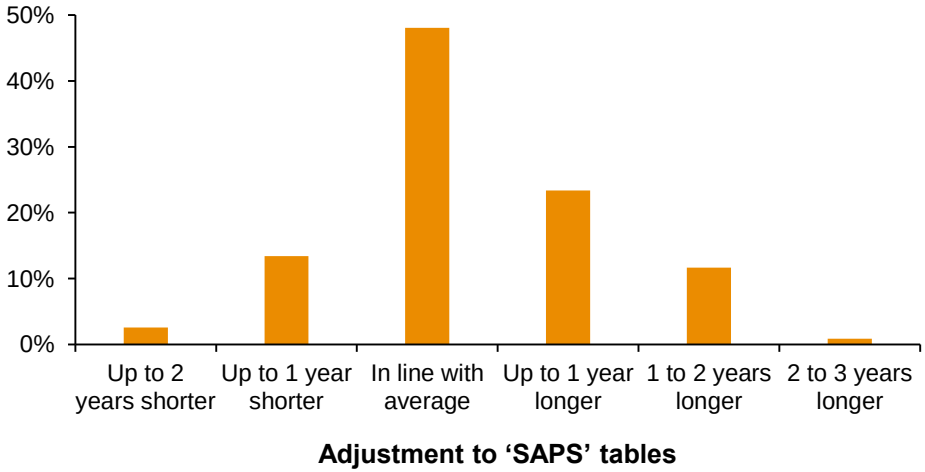
Mortality (2/3)

TPR states that the mortality assumption used should be appropriate to the scheme membership and evidence based, taking into account their characteristics and their risk characteristics, e.g. affluence, health, access to care, education and industry.

PwC has observed that in **53%** of cases, an adjustment is made to the standard base 'SAPS' base tables to reflect the underlying population. Of these adjustments, just over half of the schemes applied an adjustment that increases assumed life expectancy of their members relative to the average pension scheme member.

A new set of industry standard 'SAPS' tables, the 'S3' tables, were released at the end of 2018 using pension scheme death experience data between 2009 and 2016. The new tables have material differences in the way they have been constructed compared with previous industry standard tables, in particularly with a much greater contribution from public sector schemes, therefore actual scheme experience and new mortality studies should be considered before adopting the 'S3' tables.

Observed distributions of the adjustments to industry standard 'SAPS' tables for male pensioner members



Mortality (3/3)

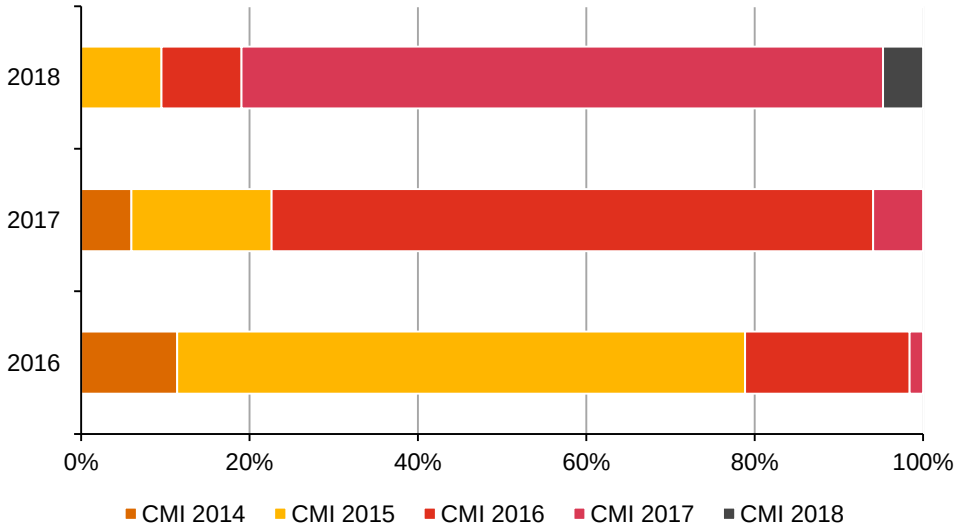
The Continuous Mortality Investigation ('CMI') of the Institute and Faculty of Actuaries carry out studies of mortality data in England and Wales to produce annual mortality projection models which reflect emerging trends in the general population.

Over recent years, mortality improvements have been much slower than previously anticipated by extrapolating past data, leading to a reduction in life expectancy with each release of the annual CMI projections model since CMI 2014. CMI 2018 continued this trend, with effectively no mortality improvement observed over 2018.

It has been observed that schemes are more quickly adopting the latest available model, with no schemes in our data with 2018 valuations continuing to use the earlier models.

The core parameters used to calibrate the model changed with the release of the CMI 2018 model to make the projections more reactive to new data. A new parameter was also introduced to allow actuaries to adjust historical data.

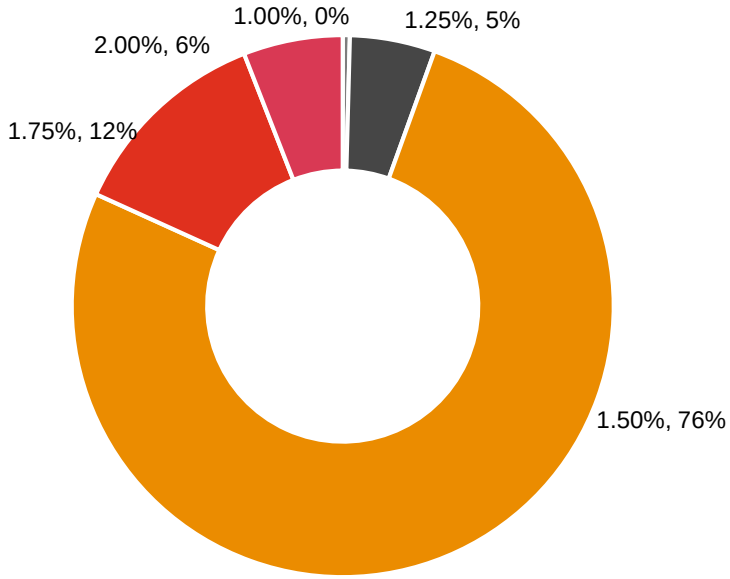
Improvement tables by valuation year



Reflecting historic experience, actuaries typically make an assumption that life expectancies will continue to increase. They do this using an assumption about the annual reduction in death rates in the long term. The most common long term improvement rate adopted is **1.50%** p.a. which is consistent with last year's survey.

Although there has been a slow down in the observed rate of mortality improvements in the short term, actuaries view of long term improvement rates have been relatively constant, with some assuming higher rates over the longer-term to compensate for this change in trend.

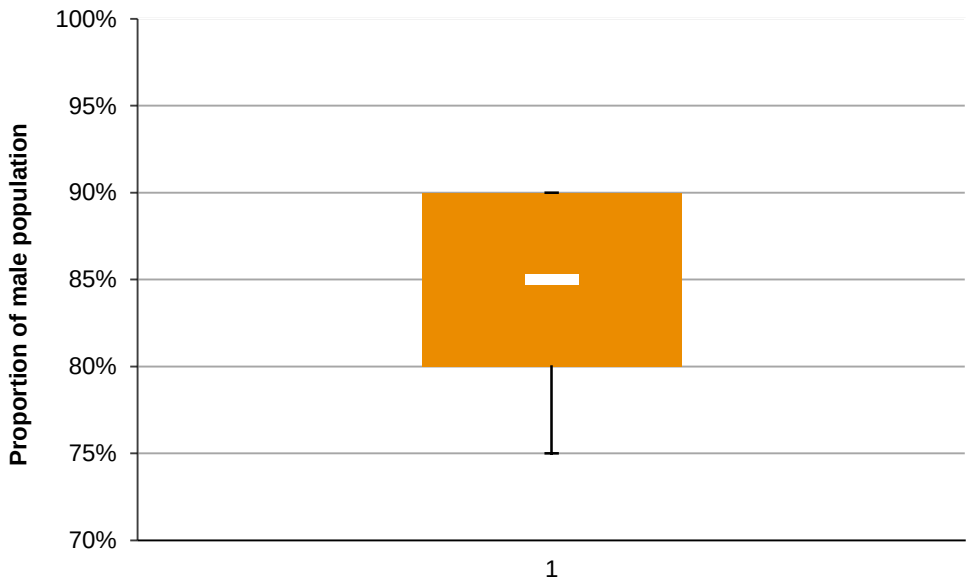
Long term rates of improvement (p.a.) in life expectancies



Other demographic factors

Of those schemes that adopt an assumption based on proportion married at retirement, **53%** of schemes adopted an assumption of **85%** or higher.

Proportion of male members assumed to be married at retirement



Note: The proportion of female members which are married may differ slightly from the assumption for males

(1) https://www.moneymarketing.co.uk/db-transfers-hit-60bn-since-2015-royal-london-foi-reveals/

(2) https://www.fca.org.uk/publications/multi-firm-reviews/defined-benefit-pension-transfers

Commutation

- **86%** of schemes allowed for cash commutation; typically an assumption is either made about the proportion of pension a member will exchange for cash or about the proportion of the maximum tax-free cash that is taken.
- The average assumption for the proportion of members' pension is **20%.**
- The average assumption for the proportion of the maximum tax-free cash taken is **77%.**

Assumptions in relation to 'pension freedoms'

Since the introduction of pension freedoms on 5 April 2015, we have observed that **7%** of schemes make an allowance for members transferring their pension out of the scheme at retirement.

This is the same as last year's survey where **7%** of schemes made an allowance for member transferring out of the scheme.

Recent experience analysis suggests that far more members transfer out of schemes than that assumed by trustees. A recent FOI request to TPR indicate that **c. 210,000 transfers** were taken over 2018-2019, up from 100,000 the previous year (1)

Trustees and advisors should therefore take care where cashflows on funding assumptions are used for non-valuation purposes, e.g. for setting investment strategies that are intended to match future benefit payments.

In the event that members have received financial advice from an Independent Financial Advisor, FCA data show that **69%** (2) of all members seeking advice had been recommended to take a transfer.

6 Data used

Limitations of funding disclosure

In 2018 the Government White Paper stated that 'the flow of information between a Defined Benefit scheme and its members is important'.

Whilst information flow is improving we believe there are still areas where this could be improved particularly in scheme funding reports. We have noted four key areas below where there are limitations of disclosure in funding documents. Therefore, members and other readers of actuarial reports may be unable to understand how funding has been assessed and, ultimately, the security of benefits.

Mortality analysis

Only **3%** of respondents made explicit in the funding report the mortality analysis methodology used. There are a range of methods available and many actuarial firms have an in-house bespoke model.

However, formal documents supplied to us as part of this survey largely do not explain how these models have been used. In particular, whether member-specific characteristics such as postcode have been used in addition to standard indicators or mortality such as pension amount. This is particularly important given the enhancements to the mortality assumptions introduced by the Continuous Mortality Investigation over 2018.

Readers of actuarial reports are therefore unable to fully understand how the trustees have explicitly allowed for mortality analysis when setting the valuation assumptions.

Approach to setting assumptions

It is often unclear from actuarial reports the extent to which trustees have reviewed their approach to setting the financial and demographic assumptions.

In particular, where the same methodology is retained, the extent to which the trustees have reviewed their approach (or whether a review is deemed to be unnecessary) is often unclear. This is true of both financial and demographic assumptions. For example, actuarial reports often do not set out how the cash commutation assumption has been derived and whether it is based on recent analysis of a scheme's membership.

There are also variations in how Scheme Actuaries disclose the methodology in deriving all actuarial assumptions, in particular, whether this is included within the valuation report itself or in ancillary documentation.

Sensitivities

Actuarial valuation reports often lack robust, detailed sensitivity analysis.

As a result, readers of the reports are unable to fully appreciate the impact on a scheme of market movements and changes in demographic assumptions.

Even when sensitivities are disclosed they are often limited and do not illustrate impact of changes to all the key assumptions

For example, sensitivities of movements in life expectancies and sensitivity analysis of the assets or funding level to movements in inflation and interest rates are often missing from valuation reports.

Use of alternate forms of security

TPR's 2019 Annual Funding Statement emphasised that non-cash funding and alternative forms of security can be used to provide an alternative funding mechanism for scheme deficits.

However we have noted no significant change in the proportion of schemes reporting the use of alternate forms of security.

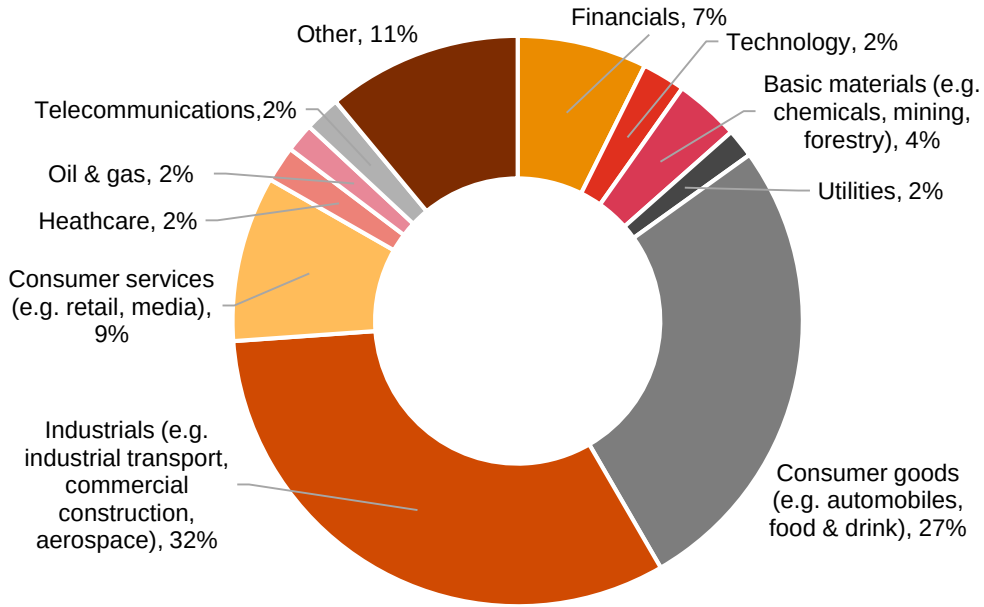
There is often no or limited disclosure in the valuation report in relation to alternative forms of security.

Survey data

- The survey includes **245** UK defined benefit pension schemes with actuarial valuations dated between January 2016 and December 2018.
- The sample covers **£219bn** of pension assets. The pie chart below shows the distribution of the sample by industry.

- The survey covers schemes using Scheme Actuaries from **28** different firms.
- Results and graphs are based on data taken from individual scheme's funding valuation reports. Data entered by respondents has not been independently checked.

Distribution of schemes by industry



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Thank you

http://www.pwc.co.uk/pensions/scheme-financing.html