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PPI

Unlocking DB surpluses: Balancing Risks and Rewards



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Executive Summary

UK DB schemes have moved into a period of widespread surplus, but the scale of accessible surplus is uncertain

UK Defined Benefit (DB) pension schemes have moved into their strongest funding position for decades. On the Pension Protection Fund (PPF) Section 179 basis, schemes reported an aggregate surplus of £214 billion in March 2025, with an average funding ratio of 125%, while the PPF 7800 Index recorded a surplus of £273.7 billion in early 2026.¹ These figures illustrate a substantial improvement in funding across the DB landscape.

Widespread surplus reflects a marked improvement in the funding position of DB schemes, and has created new choices for trustees, members, and employers that were not available a decade ago. Recent legislative reform in the Pension Schemes Bill may also create opportunities for surplus to be used to support member benefits, endgame flexibility, and wider employer outcomes.

However, Section 179 is a PPF-based measure and does not represent surplus that could be accessed by schemes.² Headline surpluses do not necessarily represent funds that can readily be extracted from schemes. The interpretation of surplus depends on the valuation basis used and, critically, on schemes' long-term strategy, and the strength of the employer covenant supporting the scheme.

Funding positions differ significantly depending on how liabilities are measured

Different valuation bases present materially different pictures of funding adequacy. While Section 179 and technical provisions measures show widespread surpluses, the position on a full buy-out basis is typically more measured, as it reflects the market cost of transferring liabilities to an insurer and securing the members' benefits. As such, buy-out pricing provides a robust benchmark for assessing durable surplus and long-term member security.

In March 2025, the aggregate position on a buy-out basis remained in deficit, with a funding ratio of around 95.8%.³ A substantial minority of schemes also remain materially underfunded on this basis. As a result, schemes that appear to be in surplus on an ongoing trustee funding measure may still be some distance from the cost of securing benefits with an insurer.

Surpluses have been driven by economic conditions alongside scheme-level decisions

The recent improvement in DB funding reflects a combination of interacting factors. Higher long-term interest rates have reduced the present value of liabilities, while asset performance, moderated longevity assumptions, and historic sponsor contributions have reinforced funding gains.

The sustainability of these outcomes also depends on scheme-level decisions. Investment strategy, hedging approaches, scheme maturity, and the strength of the sponsor covenant influence how resilient surpluses are to upcoming and future economic shocks, including changes in interest rates, market volatility and geopolitical developments.

The amount of surplus that could realistically be released is likely to be smaller than headline estimates suggest, but nonetheless brings opportunities for members, employers, and the wider system

Policy discussions have increasingly focused on whether surpluses could be used to return value to employers, enhance member benefits, or support wider economic objectives. Legislative proposals aim to make surplus extraction easier by allowing trustees greater flexibility, including the ability to modify scheme rules, and by aligning extraction thresholds with the emerging low dependency funding framework.

However, there is currently no legislation, regulation or formal guidance that sets out how surplus should be used if it is released. Decisions about surplus extraction remain subject to trustee discretion, fiduciary duties, and the need to maintain member security.

This report finds that the amount of surplus that could realistically be released is likely to be smaller than headline estimates suggest, such as the £160 billion estimated by the Department for Work and Pensions.⁴ Endgame strategy is also central. Many schemes are targeting insurance buy-out, meaning surplus may be retained to meet insurer pricing and support transaction readiness. Schemes that plan to run on may view surplus differently, often as a resilience buffer that preserves flexibility, maintains member security, and enables benefit improvements over time. Both paths offer ways of utilising surplus in line with each scheme's long-term objectives.

The sustainability of surpluses depends on funding resilience, covenant strength, and investment risk

PPI modelling shows that the durability of surpluses varies depending on starting funding levels, scheme maturity, accrual status, and investment strategy. Funding outcomes are uncertain, and a scheme that is comfortably funded today may still face deterioration under adverse economic conditions. PPI modelling suggests that a run-on scheme closed to future accrual, starting at a funding level of 120%, faces over a 1 in 4 probability of falling below 100% funding at any point over the next 25 years, even without any surplus extraction. At 105% starting funding, that probability rises to nearly 7 in 10.⁵

This highlights the potential impact of reducing funding levels through surplus extraction. While additional funding headroom reduces the likelihood of becoming underfunded, it offers less protection against more severe downside outcomes. This suggests that, beyond a certain point, retaining additional surplus may provide diminishing marginal protection against risk, raising questions about the trade-off between additional risk protection and the efficient use of capital within the scheme. For example, modelling shows that reducing funding from 120% to 100% increases the probability of falling below full funding from 26% to 90%, while the probability of falling below more severe thresholds increases by a smaller margin.⁶

These findings suggest that point-in-time funding measures alone may not be sufficient safeguards when considering surplus extraction. Funding headroom, downside risk, covenant strength, and the ability of schemes to absorb volatility without increased reliance on the sponsor are likely to be important considerations for trustees. Greater clarity on how these factors can be assessed in practice may therefore be important when determining whether surplus can be accessed safely.

Surplus extraction is therefore more likely to be appropriate where resilience remains demonstrably strong after capital is removed, supported by robust governance, clear funding thresholds and forward-looking covenant assessment.

¹ Pension Protection Fund (PPF) (2026)

² A Section 179 valuation is a PPF-based measure under the Pensions Act 2004, reflecting the level of compensation payable by the PPF rather than full scheme benefits. It is used to assess whether a scheme would require PPF support in the event of employer insolvency and therefore does not measure surplus available to schemes. [Understanding the different ways of valuing a defined benefit scheme](#)

(2025b)

⁴ Department for Work and Pensions (DWP) (2025b)

⁵ PPI Modelling (2026)

⁶ PPI Modelling (2026)

Executive Summary

The wider economic impact of surplus extraction will depend on scheme behaviour

This report also considers the implications of surplus extraction for the wider pensions system and the productive finance agenda. UK pension assets are large in aggregate, with private sector DB schemes accounting for around £1.12 trillion (38%) of total UK pension assets.⁷ However, only a relatively small share is invested in UK productive assets, defined in this report as investments such as listed equities, corporate bonds, private equity and alternatives.⁸

The impact of surplus extraction will therefore depend less on the size of aggregate surpluses and more on how schemes respond strategically. Decisions about whether to run on, pursue buy-out, transfer to a consolidator such as a superfund or DB master trust, or release surplus, and how extracted funds are used, will determine whether any additional investment supports productive activity or is directed towards other corporate uses.

A balanced assessment must give equal weight to the opportunities that surplus creates, for member benefits, employer investment and long-term scheme sustainability, alongside the risks of extraction.

⁷ Wells (PPI) (2025)

⁸ Wells (PPI) (2025)

Introduction

UK Defined Benefit (DB) pension schemes have experienced a sustained improvement in funding positions in recent years, with many schemes now reporting surpluses on trustee-based measures. This shift represents a significant change from the prolonged period during which deficits dominated the DB landscape. The emergence of surpluses has prompted renewed debate about what DB surpluses represent, how stable they are over time, and whether, and under what conditions, surplus might be accessed, while maintaining strong protection for members' accrued benefits.

At the same time, policy discussions have begun to consider reforms intended to facilitate surplus extraction above defined funding thresholds, and subject to safeguards designed to protect member security. These discussions have often focused on large headline estimates of aggregate surplus across the DB system. However, the scale of surplus varies significantly depending on the valuation basis used, and headline figures do not necessarily indicate the volume of surplus that could be practically accessed or distributed.

Much of the policy debate has therefore concentrated on the potential uses of surplus. These include refunds to sponsoring employers, discretionary benefit enhancements for members, or the use of surplus to support related Defined Contribution provision. Less attention has been given to the risks, opportunity costs, and behavioural responses that surplus extraction could create across the DB landscape. In particular, the accessibility of surplus may interact with scheme strategy, influencing decisions about whether to run-on, pursue insurance buy-out, or adopt other endgame pathways.

Understanding these dynamics requires examining not only the existence of surplus, but also the conditions under which surplus may be considered sustainable, usable, and consistent with member security. The presence of surplus at a point in time does not necessarily imply that it will remain available under changing economic conditions, nor that it can be released without affecting scheme resilience or strategic options.

This report explores these issues through a system-wide analysis of DB funding, scheme strategy and the governance of surplus. It informs the policy and industry debate by examining the drivers of recent surpluses, the extent to which they are likely to persist, and the circumstances under which surplus extraction may be compatible with maintaining robust protection for members.⁹

Research questions

The report is structured around a set of research questions that examine the emergence, stability, and potential use of DB surpluses:¹⁰

- What has driven the recent increase in DB funding levels, and why are more schemes now reporting surpluses? How do these drivers differ between schemes pursuing run-on strategies and those preparing for buy-out or consolidation?
- Which factors determine whether a scheme sits in surplus or deficit, and how do these factors interact?
- How stable are the drivers of surplus over time, and what changes in market conditions could return schemes to deficit even if they are currently above potential extraction thresholds?
- How do the risks and rewards of surplus extraction differ between schemes targeting buy-out and those planning to run-on, and what are the implications for member security and sponsor risk?
- What are the main risks and opportunity costs associated with surplus extraction, and what safeguards may be necessary to mitigate them?
- What implications could surplus extraction have for productive finance and the wider pensions system?

⁹ The research period for this report closed in early March 2026 and the figures presented reflect data available up to that point. Since then, the PPF-eligible universe recorded a £9.9 billion fall in aggregate surplus in March 2026, driven by equity market weakness following escalation of the US-Israel-Iran conflict and a resulting energy supply shock. The aggregate funding ratio nonetheless improved by 0.6 percentage points to 131.4%, as rising gilt yields reduced liability valuations. This illustrates the sensitivity of headline surplus figures to short-term macroeconomic conditions, a theme examined throughout this report.

¹⁰ More information on the mixed-methods approach used can be found in the methodology appendix.

Report structure

The report is structured to move from describing the funding improvement, to testing its sustainability, to assessing the strategic and policy implications of making surplus more accessible.

Chapter One

Drivers of the rise in DB surplus

Explains why DB funding levels have improved and why many schemes now report surpluses.

Chapter Two

Surplus sustainability

Assesses how resilient current DB surpluses are under different economic and scheme scenarios.

Chapter Three

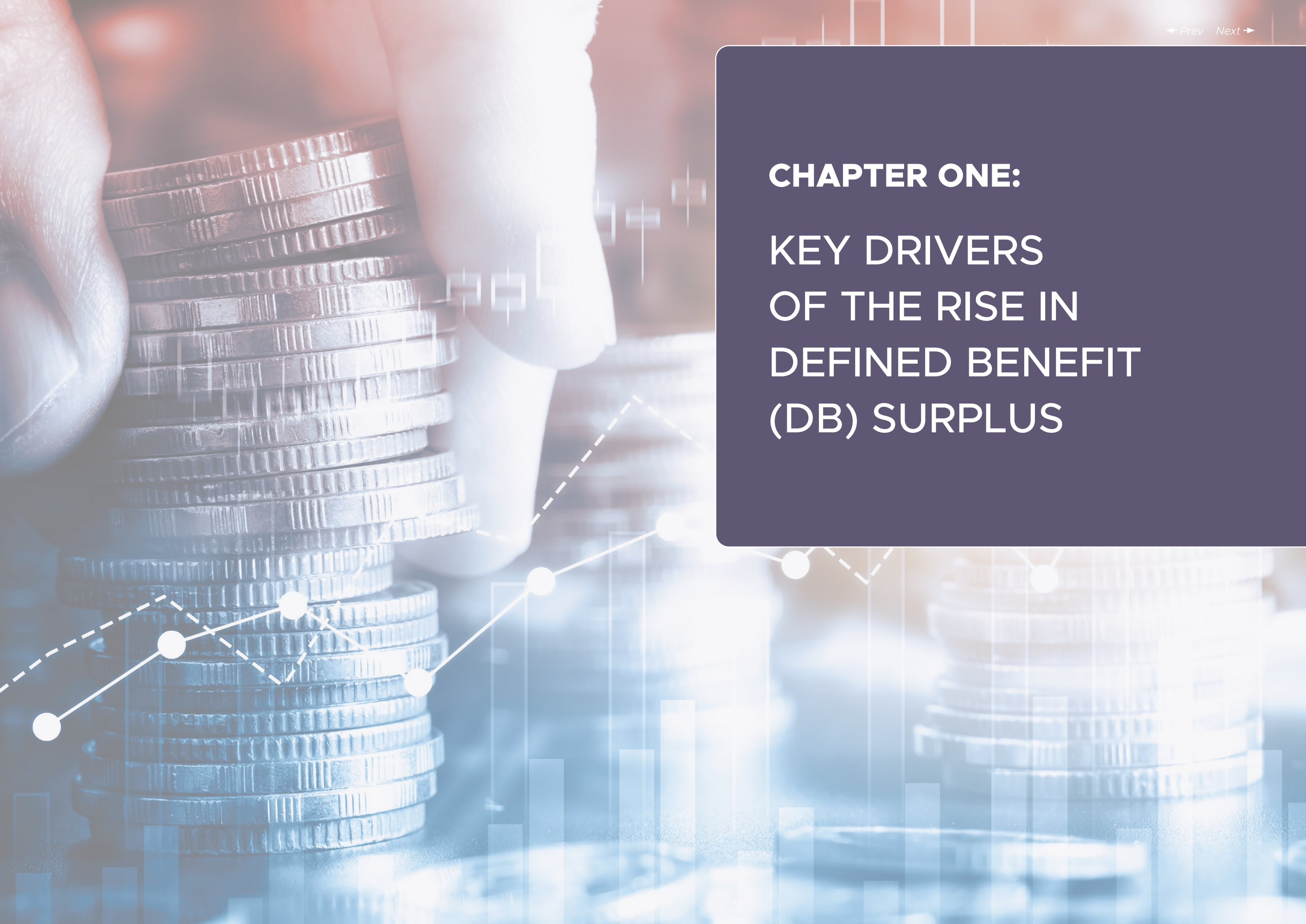
Surplus extraction: strategies, risks and safeguards

Examines how surplus may be accessed and the conditions under which extraction may be appropriate.

Chapter Four

Productive finance and industry implications

Considers how surplus extraction may affect investment in the wider economy.



**CHAPTER ONE:
KEY DRIVERS
OF THE RISE IN
DEFINED BENEFIT
(DB) SURPLUS**

This chapter examines:

The drivers behind the recent improvement in DB pension scheme funding and the emergence of widespread surpluses across the UK DB landscape. In particular, it highlights the role of higher gilt yields, strong asset performance, revised longevity assumptions and employer contributions in strengthening scheme funding positions in recent years.

The chapter outlines the scale of aggregate surplus across different funding measures and explains how outcomes vary depending on the valuation basis used. It also considers how structural features of the DB universe, including scheme maturity, declining active membership and the concentration of assets in larger schemes, have influenced funding resilience.

Finally, it compares how surplus is interpreted under different strategic end-goals, including run-on and buy-out approaches, and situates improved funding within the wider policy and legislative context. This provides the foundation for later chapters examining surplus governance and use.

Sustained funding improvements have moved most DB schemes into surplus

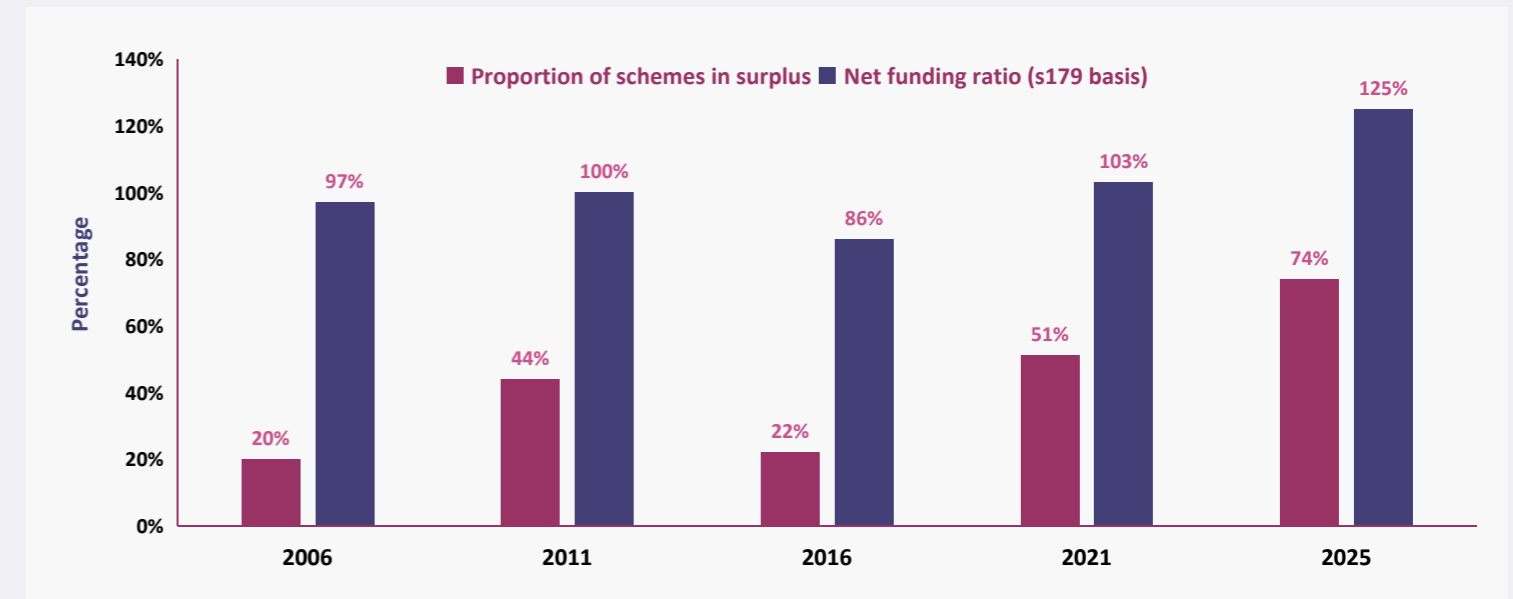
As of February 2026, there is a record surplus of £273.7 billion

DB schemes in the UK are now in the strongest financial position seen in decades. Most schemes are in surplus, and overall funding levels have continued to improve. According to the Pension Protection Fund (PPF) figures, around three-quarters of schemes are in surplus, with the total surplus across schemes on the Section 179 basis standing at £214 billion in March 2025, broadly similar to £219 billion the previous year. Over the same period, the average funding ratio increased from 123% to 125%, largely due to higher gilt yields reducing the value of liabilities (Chart 1.1).^{11,12}

The proportion of schemes in surplus has significantly increased over the past two decades

The net funding ratio (s179 basis) and proportion of schemes in surplus at 5-year intervals starting from the first edition of the PPF Purple Book

Chart 1.1



More recent figures suggest this trend has continued. The PPF’s 7800 Index, which tracks the broad universe of DB schemes, reported a record surplus of £273.7 billion in February 2026, an increase of nearly £6 billion in just one month.¹³ However, not all measures tell the same story. On a full buy-out basis, the estimated cost of securing benefits with an insurer, the picture is less robust.

Although the deficit on this basis has reduced, it still stood at £47.2 billion in March 2025, down from £69.5 billion the previous year, with the funding ratio increasing from 94.4% to 95.8%.¹⁴ The funding ratio measures the relationship between the value of a scheme’s assets and the estimated cost of paying its future pension liabilities. An increase in the ratio therefore indicates an improvement in the scheme’s overall funding position.

Funding estimates vary significantly depending on the valuation basis used. The Pensions Regulator (TPR) estimated that, as of September 2024, UK DB schemes held £1.24 trillion in assets against £1.03 trillion of liabilities on the technical provisions basis, resulting in a £207 billion surplus.¹⁵ On a “low dependency” basis, which assumes schemes are less reliant on their sponsoring employer, the surplus was smaller at £137 billion.¹⁶ Funding positions have been, and remain, sensitive to movements in interest rates and inflation expectations, because changes in these variables affect the valuation of scheme liabilities. When long-term interest rates rise, the present value of future pension liabilities typically falls, improving measured funding levels; conversely, falling rates can increase liabilities and weaken funding positions. This dynamic has been evident in recent years. The sharp increase in gilt yields between 2022 and 2024 significantly reduced the estimated value of DB liabilities and contributed to the widespread emergence of scheme surpluses across the UK DB landscape.¹⁷ As a result, aggregate surplus estimates could change materially if market conditions were to shift again.

These differences highlight that industry-wide surplus figures can vary significantly depending on the assumptions used. Nevertheless, the overall trend is one of clear improvement. Government analysis, drawing on PPF data, suggests that three-quarters of schemes are now in surplus, while the funding position of those still in deficit has also improved, with the collective deficit falling from £500 billion in 2019 to around £140 billion in 2024.¹⁸ This improvement is also reflected in the PPI UK Pensions Framework, where the indicator measuring DB scheme sustainability has an improved rating as per the 2025 indicators, reflecting improved funding positions across much of the DB landscape.¹⁹

¹¹ Pension Protection Fund (PPF) (2025b).
¹² Section 179 is a statutory valuation basis used in the PPF framework (often used in PPF datasets) which provides a standardised way to assess scheme funding relative to PPF-level benefits.
¹³ PPF (2026).
¹⁴ PPF (2025b).
¹⁵ The Pensions Regulator (TPR) (2025).
¹⁶ TPR (2025).
¹⁷ TPR (2024).
¹⁸ Department for Work and Pensions (DWP) (2025b). The Purple Book dataset covers 4,838 schemes – 99.9% of the estimated 4,840 schemes eligible for PPF compensation.
¹⁹ Adams et al. (PPI) (2025).

Sustained funding improvements have moved most DB schemes into surplus cont.

A mature and shrinking DB landscape underpins funding strength

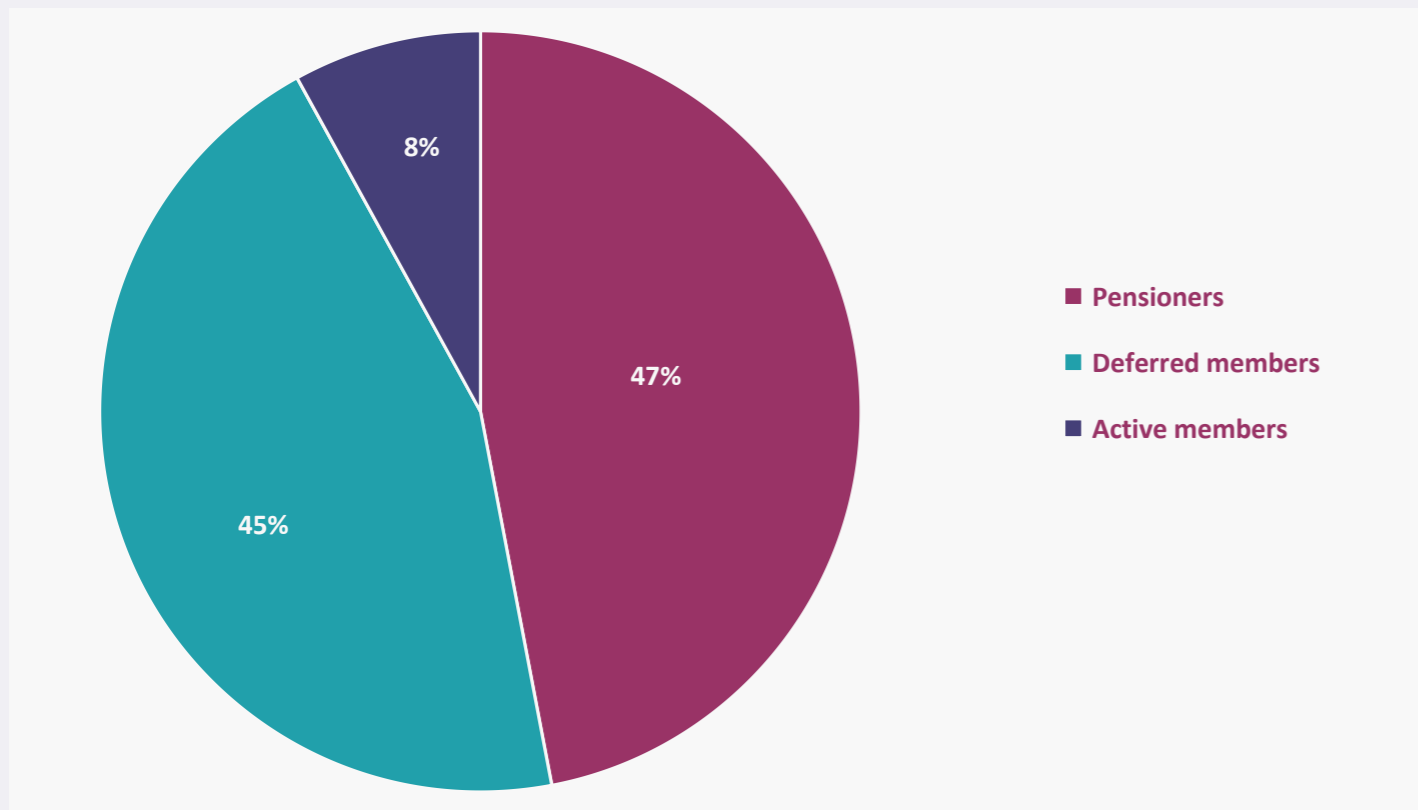
The UK's DB pension sector is continuing to contract and mature, with most schemes now closed and paying out benefits to an ageing membership. As of March 2025, there were around 4,840 eligible schemes in the PPF universe, down from approximately 4,974 the previous year.²⁰ The vast majority are closed to new members (around 91%) and 73% have also closed to future accrual. Just 4% of schemes remain open to new members, and 5% are in wind up. Schemes that remain open tend to be larger, accounting for around 15% of total DB members.²¹ These include a small number of large, ongoing schemes, particularly in sectors such as higher education and rail.

This shift is reflected in membership patterns. Active DB membership has fallen sharply, from 3.6 million in 2006 to just 0.7 million in 2025, representing only 8% of all DB members. In contrast, 47% are now pensioners and 45% are deferred members. This maturing profile has significant implications for scheme behaviour: with fewer active members and limited new accrual, liabilities are more stable and predictable, supporting improved funding positions (Chart 1.2).²²

Pensioner and deferred members make up the majority of Defined Benefit scheme membership

Share of pensioner, deferred and active members among the 8.6 million DB scheme members, PPF Purple Book 2025

Chart 1.2²³



²⁰ PPF (2025b)
²¹ PPF (2025b)
²² PPF (2025b)
²³ PPF (2025b)
²⁴ PPF (2025b)
²⁵ PPF (2025b)

Scheme size shapes the distribution of assets and surplus

Although small schemes dominate by number, the sector's assets are heavily concentrated in a minority of large schemes. Those with over 5,000 members account for roughly 75% of total DB assets, yet make up just 6% of all schemes. In contrast, around 80% of schemes have fewer than 1,000 members but collectively hold only about 10% of assets.²⁴ These differences in size and scale often correlate with differences in governance and administrative capacity, investment approach, and funding resilience. Larger schemes typically have access to more extensive trustee and advisory resources, allowing them to implement more sophisticated investment and risk management strategies, including liability-driven investment and dynamic hedging programmes. They may also benefit from economies of scale in governance, investment management and transaction costs, which can improve implementation and oversight.

As a result, larger and better-resourced schemes have generally been better placed to lock in gains, manage risk, and reach surplus. Mature schemes, in particular, benefit from stable outflows and the absence of new accrual, making it easier to align investments with liabilities and meet funding targets. These features together help explain why so many schemes now report surpluses, not just because markets have moved favourably, but because the overall structure of the DB landscape has changed.

Figure 1.1: DB at a glance (2025)²⁵

Metric	Figure
Total DB schemes (PPF universe)	4,840
Schemes open to new members	4%
Proportion of schemes closed to new members	91%
Proportion of schemes closed to future accrual	73%
Total DB members	8.6 million
Active members	0.7 million (8%)
Deferred members	45%
Pensioner members	47%
Schemes with <1,000 members	80% of schemes; 10% of assets
Schemes with >5,000 members	6% of schemes; 75% of assets

Sustained funding improvements have moved most DB schemes into surplus cont.

Funding levels vary by scheme size, with mid-sized schemes less well funded

While many schemes are now in surplus, these are not evenly distributed across the DB universe. The largest schemes, whether by membership size or total liabilities, hold the majority of surplus simply because they hold most of the sector’s assets. However, funding ratios also vary by scheme type. A ratio above 100% indicates that a scheme is more than fully funded, while a ratio below 100% suggests it may require additional support from the sponsoring employer to meet the long-term cost of paying promised benefits. The PPF’s analysis shows a U-shaped pattern in funding levels. Based on the simple average funding ratio, which gives equal weight to each scheme, those with fewer than 100 members are funded at 128.4%, and those with more than 10,000 members at 126.9%.²⁶ By contrast, mid-sized schemes (who have between 1,000 and 9,999 members) tend to have lower average funding ratios, typically closer to 115–118% (Figure 1.2).²⁷

Figure 1.2: Analysis of funding by scheme membership size

Number of members	Number of schemes	Total assets (£bn)	S179 liabilities (£bn)	Net funding position (£bn)	Aggregate funding ratio	Simple average funding ratio ²⁸
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%

These differences highlight how resilience in funding depends not just on market movements, but also on scheme size, maturity and governance capacity. Larger schemes often benefit from economies of scale, greater access to professional trustees and specialist advisers, and the ability to implement more sophisticated de-risking strategies. For example, schemes with more than 5,000 members hold around 75% of assets, meaning they typically have greater resources to develop liability-driven investment (LDI) strategies and shift a larger share of assets into bonds or other liability-matching investments. Around 70% of DB assets are now in bonds, compared to just 15% in equities.²⁹ At the other end of the scale, some very small schemes are well-funded legacy arrangements, closed to accrual and with relatively stable liabilities. However, outcomes vary, and many small schemes remain underfunded or face governance and resourcing constraints that can make funding challenges more difficult to address. In contrast, mid-sized schemes may face more challenging dynamics: heavier pensioner loads, more limited sponsor support, and less governance capacity. A weaker sponsor covenant can reduce the scheme’s ability to rely on future employer contributions if funding deteriorates, which in turn may require more cautious investment strategies and tighter funding margins. These factors can make it harder to build or maintain a funding surplus.

Investment strategy has also played a key role. Schemes with higher allocations to equities have typically experienced more volatile funding outcomes. Others have reduced risk by shifting into bonds and using LDI strategies, which aim to match asset values more closely to the expected cost of future liabilities and reduce sensitivity to interest rate movements. Schemes that had already implemented higher levels of hedging through LDI were more insulated from interest rate movements but were less able to benefit from the improvement in funding positions associated with rising yields. By contrast, schemes with lower levels of hedging saw larger reductions in liability values as yields increased. However, the 2022 gilt market crisis exposed vulnerabilities in some LDI strategies. Following the UK Government’s September 2022 fiscal announcement, gilt yields rose sharply over a short period, leading to large collateral calls on leveraged LDI positions held by some DB schemes. Some schemes were required to sell liquid assets quickly to meet these margin calls, which created temporary stress across the gilt market and prompted intervention by the Bank of England.³⁰

The episode highlighted the risks associated with highly leveraged LDI structures and the importance of strong governance, liquidity management and operational readiness. Despite the short-term disruption, many schemes subsequently strengthened their LDI arrangements by increasing collateral buffers and reducing leverage. The sustained increase in long-term interest rates also reduced the present value of liabilities and contributed to improved funding positions across the DB sector.³¹

Risk transfer activity reflects funding momentum

Recent trends in risk transfer activity help illustrate how and where surpluses are being realised. Schemes in strong funding positions, particularly those aiming for buy-out or consolidation, have increasingly chosen to secure member benefits with insurers, seeing this as the “gold standard”. In 2024, buy-in and buy-out volumes reached record levels. In total, 299 transactions took place during the year, with an average value of around £160 million. Of these, 165 were completed in the second half of the year.³²

For well-funded schemes, particularly larger ones (for example those with more than 5,000 members) surplus provides flexibility to reduce risk, improve member security, or explore extraction options under the evolving legislative framework. In contrast, schemes with limited surplus, or those only recently reaching full funding, may need to focus on stabilising their position before considering further strategic steps (Figure 1.3).

²⁶ PPF (2025b)

²⁷ Table dataset source: PPF (2025b)

²⁸ 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.

²⁹ PPF (2025b)

³⁰ Bank of England (2022)

³¹ TPR (2023c)

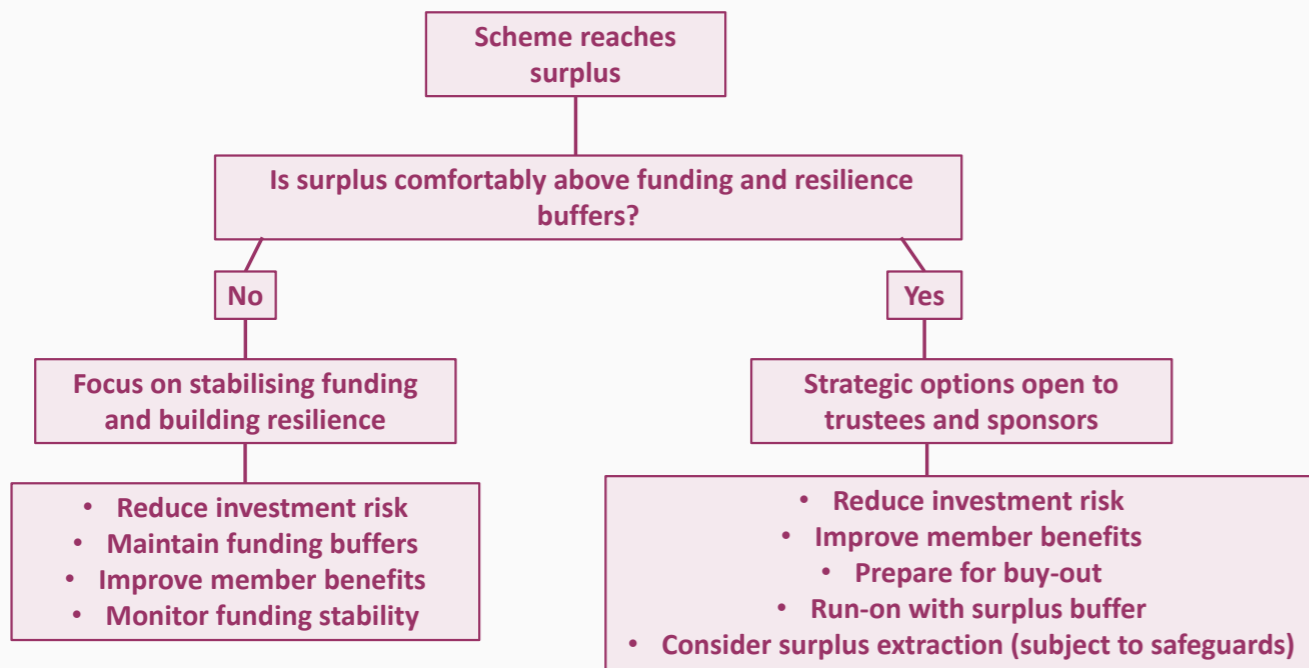
³² Hymans Robertson (2024)

Sustained funding improvements have moved most DB schemes into surplus cont.

Pensioner and deferred members make up the majority of Defined Benefit scheme membership

Figure 1.3

Strategic choices for schemes reaching surplus



Surpluses prompt renewed focus on legislative change

The emergence of multi-billion-pound surpluses across DB pension schemes has brought renewed focus to long-standing questions around surplus treatment. Under current legislation, only a minority of schemes have rules allowing surplus to be returned to sponsoring employers or used for member enhancements during ongoing operation, with most only having full clarity on scheme wind-up.

In response, the Government is legislating to provide trustees with greater flexibility. The Pension Schemes Bill, introduced in May 2025, proposes a new statutory power for trustees to amend their scheme rules to enable surplus payments to sponsors, where certain conditions are met.³³

This statutory override would allow trustees to modify existing rules or introduce a new provision without requiring pre-existing powers. Importantly, it also repeals the 2016 cut-off date associated with the current surplus refund resolution under section 251 of the Pensions Act 2004, which has excluded most schemes from accessing surplus to date.³⁴

Surplus payments under the new regime would only be permitted once a scheme meets a defined funding level requirement. The Government has indicated this will be set below the full insurance buy-out threshold and aligned with the new low dependency funding basis under the revised DB funding code, i.e., the level at which the scheme can continue without significant employer support. Trustees must also obtain actuarial certification that the scheme remains securely funded.³⁵

Trustee powers will expand, but with conditions and safeguards

Trustees will retain full discretion under the reforms. The Government has emphasised that decisions about surplus use should remain trustee-led and be made in line with fiduciary duties and scheme-specific circumstances. To remove legal ambiguity, the Government has proposed amending section 37 of the Pensions Act 1995 to clarify that trustees must act in accordance with their overarching duties to scheme beneficiaries when making surplus decisions. This is intended to confirm that the requirement to act “in the interests of members” is not an additional legal hurdle, but a reflection of trustees’ existing fiduciary responsibilities. While the legislation does not prescribe how surplus should be used once released, the Government has stated that, with appropriate safeguards in place, surplus flexibilities will allow well-funded schemes to release resources to both businesses and scheme members, where trustees agree it is safe to do so.³⁶

These changes form part of a broader policy rationale. The Government and its advisers have suggested that greater flexibility around surplus use could allow the assets above those required to meet liabilities to be productively reinvested, with potential wider economic impacts. The Regulatory Policy Committee (RPC) noted that distributional effects between DB and DC pensions, as well as alignment with the Government’s growth agenda, had been considered qualitatively in the policy design.³⁷ To support this policy direction, the Treasury has already reduced the tax charge on authorised surplus payments from 35% to 25%, effective from April 2024, bringing it into line with the Corporation Tax rate for larger companies. This also broadly aligns with the rate of tax relief applied to contributions when they were paid into the scheme.³⁸

Trustees will not be required to use the surplus power, and for many schemes, conditions for release may remain unmet. However, for schemes in strong funding positions, the reforms provide a clearer legal framework within which trustees and sponsors can consider how surplus fits into long-term strategy. In practice, surplus may continue to be held as a resilience buffer against funding volatility and investment risk, while strategic focus shifts between different end-state options. As some stakeholders have noted, the question for many schemes may be less whether they should run-on, and more how long they should run-on before ultimately securing benefits with an insurer. Within this framework, surplus could support stronger member outcomes or measured employer benefit, alongside maintaining funding resilience.

The Government has framed the reforms as supporting a well-funded, mature DB landscape while maintaining safeguards for members.

³³ DWP (2025a)

³⁴ DWP (2025a)

³⁵ DWP (2025a)

³⁶ DWP (2025a)

³⁷ RPC (2025)

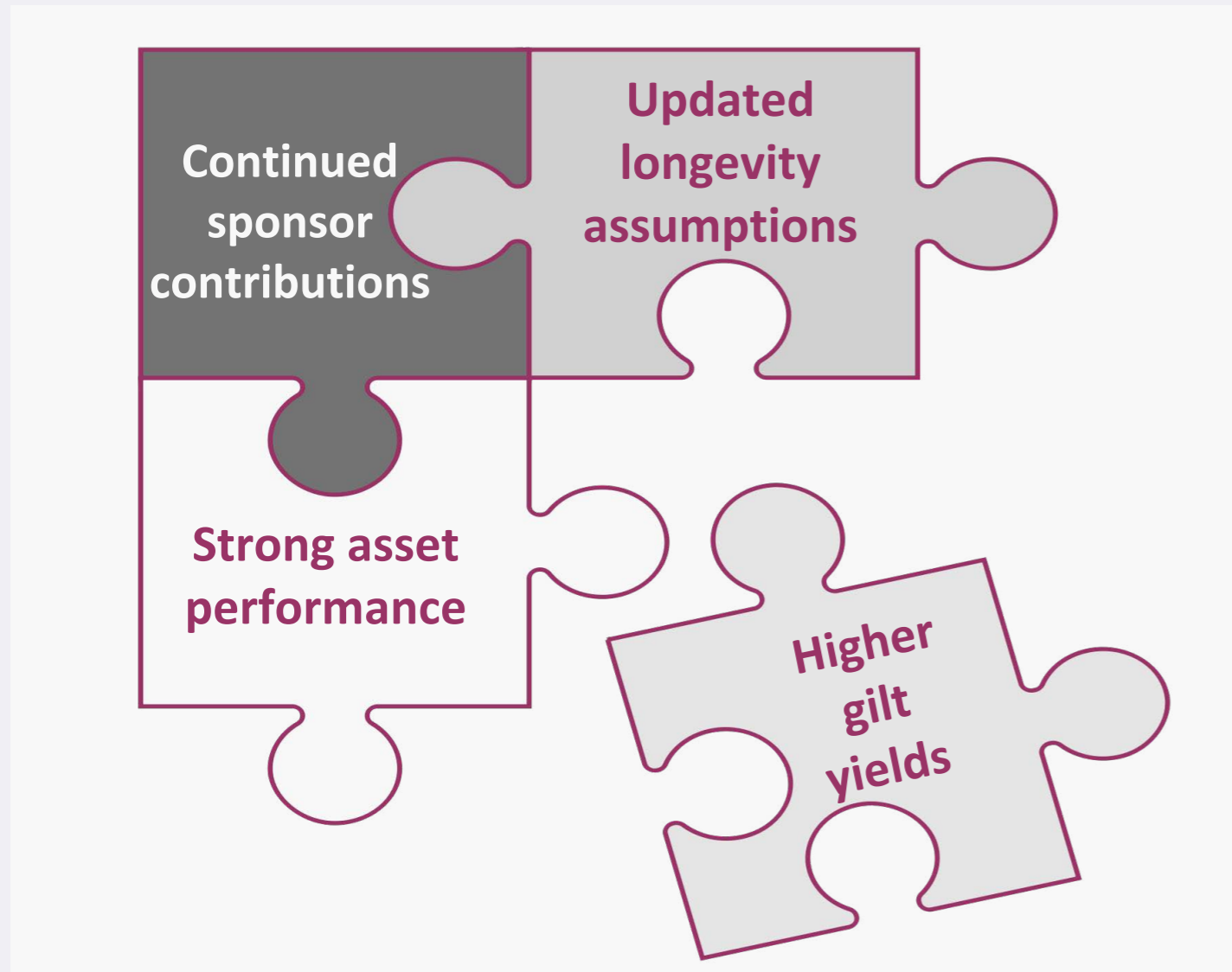
³⁸ HMT (2023)

Falling liabilities and stronger assets drive the return to surplus

After a decade of persistent deficits, UK DB pension schemes have recently seen a marked improvement in funding levels. As of 30 September 2024, 82% of schemes were in surplus on the technical provisions basis, with an aggregate funding level of 120% and a sector-wide surplus of £207 billion.³⁹ Several factors have driven these improved funding ratios in recent years. This section examines four key drivers behind the rise in DB scheme surpluses: higher gilt yields, updated longevity assumptions, strong asset performance (including equities and LDI strategies), and continued sponsor contributions (Figure 1.4).

Key drivers of rising DB surpluses

Figure 1.4



Rising gilt yields have improved funding positions, particularly for schemes with lower levels of hedging

The sharp increase in UK Government bond (gilt) yields since 2022 has been one of the most important drivers of rising DB scheme funding levels. Pension schemes calculate the present-day cost of their future benefit promises by discounting them using market interest rates, mainly based on gilt yields. When those interest rates rise, the estimated value of future liabilities falls. In effect, schemes assume they can earn more investment return over time, so they need to set aside fewer funds today to pay the same benefits in future.⁴⁰

This shift has had a material impact. Long-term gilt yields rose sharply during 2022 and 2023, reaching levels not seen since the late 1990s. According to the PPF, the aggregate funding ratio increased from 123% to 125% between March 2024 and March 2025, reflecting the effect of higher yields in reducing liability values.⁴¹ For some schemes, liabilities fell more quickly than assets, contributing to an improvement in funding positions.

Higher interest rates also reduce the market value of some scheme assets, especially fixed-income investments like gilts, but for schemes that were not fully hedged the benefit from falling liabilities has outweighed the loss in asset values. This has been described as the “twin impact” of rising rates, simultaneously pushing down asset values while more significantly lowering the estimated cost of future benefits.⁴² Equity performance has helped to cushion the decline on the asset side, particularly during periods when equity markets have outperformed bonds.

This marks a clear contrast with the preceding decade of decreasing interest rates. In that environment, falling yields consistently increased the value of liabilities, pushing many schemes into deficit despite stable or growing assets. By reversing that trend, the recent high-yield environment has fundamentally reshaped scheme balance sheets. For many DB schemes, higher gilt yields have been the most central factor in the move from deficit to surplus.

Revised life expectancy assumptions ease pressure on scheme liabilities

A second contributor to improved funding has been changes in assumed future longevity. During the 2000s and early 2010s, rising life expectancy led schemes to assume longer periods of benefit payments, increasing liability values. However, improvements in UK life expectancy slowed from the mid-2010s, leading many schemes to revise their longevity assumptions downward in recent valuation cycles.

As a result, the average assumption for male life expectancy at age 65 was around 18 months lower in 2024 than in 2014.⁴³ In practical terms, if pensioners are expected to live slightly fewer years on average than previously assumed, the total benefits schemes must plan to pay are reduced. These updated mortality projections, typically based on Continuous Mortality Investigation (CMI) models, have therefore lowered estimated DB scheme liabilities. However, their impact is partly offset by higher discount rates, which reduce the value of longer-dated pension payments.

“There are probably three or four key drivers. The rise in interest rates following the 2022 budget helped. Longevity improvements have largely plateaued over the last 10 – 15 years, which has reduced insurance pricing. There’s also been greater competition in the insurance market, and significant sponsor contributions over the last decade. All of that has come together to mean many schemes are now fully funded, and in some cases overfunded. — Pension risk transfer specialist

Longevity improvements were further affected by the COVID-19 pandemic, which temporarily increased mortality in 2020–2021. More recent data suggest the outlook may now be stabilising, with the latest mortality projections indicating life expectancy at most ages is around one to two months higher than in the previous model, which could increase DB scheme liabilities by around 0.5% on average for schemes adopting it.⁴⁴ Overall, changes to longevity expectations have eased pressure on DB scheme finances, although their impact on funding levels is smaller than that of interest rate movements.

This combination of drivers is echoed by specialists working directly with schemes approaching risk transfer.

³⁹ TPR (2025)
⁴⁰ PPF (2025b)
⁴¹ PPF (2025b)
⁴² Marshall (2025)
⁴³ Willis Towers Watson (WTW) (2025)
⁴⁴ WTW (2026a)

Falling liabilities and stronger assets drive the return to surplus cont.

Asset growth and hedging strategies have reinforced scheme funding gains

The performance of scheme assets has also played a significant role in funding improvements. Despite periods of market volatility, many asset classes delivered robust returns over the past several years. Equity markets, in particular, saw strong growth following the initial pandemic downturn. Global and UK equities rebounded sharply in 2020–2021 and, although 2022 brought challenges with rising inflation and interest rates, equity values remained relatively resilient. This growth in asset values provided a tailwind for DB funding positions. Industry commentators have also pointed to the favourable combination of higher rates and equity values since 2022 that improved pension finances.⁴⁵ As gilt yields climbed (reducing liabilities), equities and other growth assets held by schemes did not fall commensurately, and in some cases delivered positive returns, thereby increasing the asset side of the funding equation.⁴⁶

LDI strategies helped scheme funding levels absorb the impact of interest rate movements

Additionally, many schemes have employed liability-driven investment (LDI) strategies over the past decade.⁴⁷ When rates rose rapidly in 2022, schemes with extensive LDI hedges saw their gilt asset values drop, but their liabilities fell in parallel, leaving their funding level largely protected. In effect, LDI performed its role by stabilising funding positions amid volatile markets. There were short-term liquidity stresses during the 2022 spike in yields when some schemes had to post collateral to maintain hedges, but the overall result was that schemes emerged with improved funding as rates settled at higher levels. For those schemes that were less than fully hedged, the rising yields provided a net benefit as the reduction in liabilities outpaced any asset declines. Meanwhile, diversified portfolios (property, infrastructure, credit) have mostly generated solid returns over the 2019–2023 period, further bolstering asset values. The PPF’s data illustrates this interplay: in mid-2025, a surge in long-dated gilt yields caused a 2.2% fall in liabilities in one month, while steady equity gains helped limit the drop in asset values to 1.9%, resulting in a slight increase in the funding ratio to about 128%.⁴⁸ Stakeholders emphasise that extensive hedging has locked in much of these gains:

“In our scheme we hedge our interest rate and inflation risk because the sponsor wanted greater certainty over the funding position. We’re a large scheme and funding moving up and down creates uncertainty for their investors. — Pension scheme manager

In summary, funding positions have strengthened partly due to liability reductions arising from higher discount rates. Asset performance has been supportive, with the scale of impact depending on scheme maturity and asset allocation. For schemes retaining growth exposures, equity returns have contributed positively; for more mature schemes, the combination of LDI hedging and reduced liability values has been the dominant driver.

“A lot of the pension schemes in surplus have derisked. They do own quite a large allocation to illiquid assets because of the history of the investing, however I don’t think they are that sensitive to movements in public markets. Many of them are well hedged after the events of autumn 2022, so there are a lot of pension schemes that are immunised against a lot of market parameters moving in either direction. — Pension risk transfer specialist

Employer deficit contributions helped bridge the gap but are now rarely required

Employer deficit contributions have continued to shore up scheme finances, although their relative importance has diminished as funding levels improved. In the early 2020s many sponsoring employers were still making deficit recovery contributions, which are additional payments intended to reduce funding shortfalls, alongside regular contributions for any ongoing benefit accrual. These payments increased scheme assets and helped close remaining funding gaps as schemes moved closer to full funding.

Deficit payments have fallen sharply as schemes move into surplus

However, as deficits have shrunk or turned to surplus, sponsors have been able to reduce their top-up payments. Annual deficit contributions from employers have now lessened significantly, falling to around £1.6 billion in 2024, a fraction of what was needed only a few years earlier.⁴⁹ This reflects the fact that schemes do not require large cash injections when their funding targets are met or exceeded. Even standard ongoing contributions for active members have declined, as higher discount rates mean a lower cost of accrual, and due to most DB plans being closed to new members or very mature.

Despite this downtrend, the contributions made in the early 2020s were an important catalyst for improved funding. They provided interim support that, combined with the effects of yields and investment performance, pushed schemes into surplus. Overall, the change in DB funding has been achieved with lower, though still significant, financial contributions from sponsoring employers compared to the previous decade. Employer deficit reduction contributions were higher in the 2010s, with quarterly contributions exceeding £8 billion at their peak, compared with lower levels in more recent years.⁵⁰

Multiple funding drivers have combined to deliver record DB surpluses

These drivers often interacted in reinforcing ways. Higher interest rates not only decreased liabilities but also reduced the cost of new pension accruals and deficit finance, which in turn allowed sponsors to scale back contributions without undermining funding progress. Strong asset returns improved funding directly and also generated gains that could be used to de-risk, for example, by buying in some of the benefits through insurance or increasing hedging of liabilities. In some cases, favourable investment performance created surpluses that removed the need for further deficit contributions. Meanwhile, more modest longevity expectations have provided a quiet offset to past upward revisions, meaning schemes weren’t fighting a rising tide of ever-lengthening payout periods.

Macroeconomic, demographic and sponsor factors worked together to reinforce progress

Together, these factors have supported a marked improvement in scheme finances. The PPF reports that UK DB schemes moved from an aggregate deficit in 2020 to a collective surplus by 2022–2023. Funding ratios on a Section 179 basis are now at their highest levels in over 15 years, stabilising in the 120–130% range during 2024–2025.⁵¹ Most schemes now hold sufficient assets to meet their liabilities as measured on ongoing funding basis. The change reflects a combination of macroeconomic trends, demographic developments and sustained sponsor support. Some stakeholders suggest current surpluses reflect structural shifts in scheme strategy and risk management, and not short-term cycles.

“It feels much more structural. Schemes are more mature, many are closed, and as funding has improved trustees have reduced risk and hedged more of their liabilities. We’re in a different position to fifteen years ago. — DB investment strategist

With these stronger positions in place, attention has increasingly turned to the implications of surplus, including increased risk transfer activity and proposals to permit surplus use. While policy debates continue, there is some consensus that improved funding has enhanced the security of accrued benefits.

⁴⁵ Marshall (2025)

⁴⁶ Marshall (2025)

⁴⁷ LDI involves using gilts and derivatives to hedge interest rate and inflation risks, matching movements in liabilities.

⁴⁸ PPF (2025a)

⁴⁹ WTW (2025)

⁵⁰ Office for National Statistics (ONS) (2019)

⁵¹ PPF (2025b)

Macroeconomic conditions, investment gains, and changing assumptions have worked together to improve funding

Funding outcomes are shaped by the interaction of multiple scheme and market factors

A DB scheme's funding position reflects the combined influence of several interrelated factors. Recent UK experience demonstrates how changes in interest rates, asset performance, sponsor behaviour, and longevity assumptions can act in tandem to shape whether a scheme is in surplus or deficit.

These interactions are not purely additive, many of the drivers amplify or offset each other. For instance, rising gilt yields have reduced the value of future liabilities, improving funding levels. However, this has occurred alongside periods of strong asset returns, particularly in equities, which have boosted the value of scheme assets. TPR notes that much of the improvement in funding observed during 2022–2023 resulted from “a combination of investment outperformance from return-seeking assets and a significant rise in gilt yields”.⁵²

Other developments have also contributed. More modest assumptions about future longevity have helped ease upward pressure on liabilities, especially for schemes that had previously adopted more cautious projections. In parallel, deficit reduction contributions made during the preceding decade strengthened asset positions and left many schemes better prepared to benefit from recent market tailwinds. As funding has improved, the required scale of sponsor contributions has in many cases declined, allowing schemes to stabilise their position or de-risk.

Funding strength reflects both past market conditions and internal scheme choices

This interplay highlights that no single metric fully captures the resilience or risk profile of a scheme. A strong funding ratio may reflect favourable market conditions, effective governance and administration, prudent actuarial assumptions, or all three. Conversely, a weaker funding position may result not from poor performance, but from strategic decisions such as lower levels of hedging, more conservative investment allocations, tighter assumptions about inflation or mortality, or differences in liquidity management.

“You need to think about the size of your downside risk, whether the funding is there, and what the covenant looks like at the point you experience a stress event. It's not enough to look at the covenant today.”
 — Director of valuation and funding

Understanding DB funding today therefore requires a multi-dimensional view. Trustees and policymakers alike can consider and evaluate how different factors interact and overlap. Integrated risk management frameworks, which bring together funding, investment and covenant assessments, are central to navigating these dynamics. Stakeholders stress that surplus decisions cannot be separated from covenant resilience and downside planning.

Ultimately, it is the combination of economic conditions, demographic trends and scheme-level strategy that determines the strength and sustainability of funding outcomes.

⁵² TPR (2023a)

Strategic differences in scheme end-goals influence the nature and scale of surplus

DB schemes differ not only in funding status, but in their long-term strategic objectives. The key question for many schemes is not simply whether to run-on or move to buy-out, but how long they can continue running on before ultimately securing benefits with an insurer. These endgame choices shape how schemes define funding success, interpret surplus, and manage risk over time.

Schemes targeting buy-out with an insurer typically adopt a progressively more conservative investment approach, transitioning towards portfolios that have a high percentage of gilts and liquid assets. This is different to how an insurer will invest, but aligned to delivering cash and other assets that they are prepared to accept in the transaction. Pre-buy-in investment strategies can aim to match insurer pricing and hedging needs, ensuring that schemes have “enough assets in the right form to meet the insurer’s premium,” while managing transaction risk.⁵³ In parallel, actuarial assumptions and funding metrics are often recalibrated to reflect insurer pricing bases, narrowing the focus to buy-out affordability and timing. This insurer-aligned approach prioritises transaction readiness and solvency on an insurance basis, with less tolerance for asset or liability risk as settlement nears.

“The right benchmark above which surplus can be taken out is insurance pricing. But it’s not just insurance pricing on day one. It’s regular checks on insurance pricing. That helps people understand whether their strategy is truly building surplus or just building surplus against a bunch of old assumptions. — Pension risk transfer specialist

Buy-out pricing reflects not only expected benefit payments but also the value of transferring risk to a regulated insurance balance sheet. This includes the cost of capital, prudential requirements and risk management, which together provide a high degree of benefit security and remove ongoing funding uncertainty for the sponsor. Transaction pricing can be influenced by scheme-specific factors such as data quality, benefit specification and residual risks. Schemes with more complete and reliable data may achieve more favourable pricing outcomes, while additional work to resolve data issues can increase costs or affect timing.

By contrast, run-on strategies also involve ongoing costs, including investment management, advisory and governance expenses, which are borne over time rather than crystallised upfront. For schemes considering run-on, stakeholders emphasise the importance of retaining insurance pricing as a live benchmark when assessing long-term value.

Schemes planning to run-on may tolerate more investment risk and maintain a broader view of surplus, potentially using it to boost member outcomes, reduce employer DB contributions over the longer term or substitute employer DC contributions.⁵⁴ However, the capacity to pursue a run-on strategy varies significantly across schemes and depends on funding level, maturity, governance capability and the strength of the sponsor covenant. For many schemes, insurance pricing remains an important benchmark even where buy-out is not the immediate objective.

Emerging consolidation models, such as superfunds, present a third strategic option, potentially offering pooled governance and economies of scale for schemes that are not well-positioned to attain buy-out independently, and providing a potential pathway towards it.⁵⁵

These strategic variations shape how surplus arises and is interpreted. A scheme may appear well-funded on a technical provisions basis but remain below buy-out funding, while a run-on scheme may place greater weight on funding resilience over time rather than immediate settlement. Buy-out provides a distinct outcome, converting funding strength into a contractual promise backed by an insurer and removing reliance on the sponsor covenant. By contrast, run-on strategies retain exposure to investment, longevity and covenant risks, but may offer greater flexibility in how surplus is managed and used over time, subject to ongoing governance and risk management.

Some stakeholders suggest that run-on can, in certain circumstances, support positive outcomes for members, sponsors and the wider economy. However, this will depend on scheme-specific factors, including funding strength, maturity, governance capacity and covenant durability, and is not a uniformly applicable strategy.

⁵³ Hymans Robertson (2025)

⁵⁴ LCP (2025)

⁵⁵ DWP (2025a)

Conclusions

UK DB pension schemes have experienced a marked improvement in funding, reversing almost two decades in which deficits were widespread. This shift reflects a combination of cyclical and structural drivers. Higher long-term interest rates have reduced the present value of liabilities, while asset performance, moderated longevity assumptions and earlier sponsor contributions have reinforced funding gains. As a result, many schemes now report funding positions that are materially stronger than in previous valuation cycles.

However, surplus is neither uniform nor defined consistently across the DB universe. Funding outcomes vary by scheme size, maturity, governance capacity and strategic objective, and schemes may report a surplus on some funding measures while remaining below buy-out funding. The scale and durability of surpluses therefore depend on both market conditions and the assumptions used to measure liabilities. As the policy debate shifts from deficit repair to surplus management, understanding these drivers provides the foundation for assessing how surplus may be governed and used.

Key messages

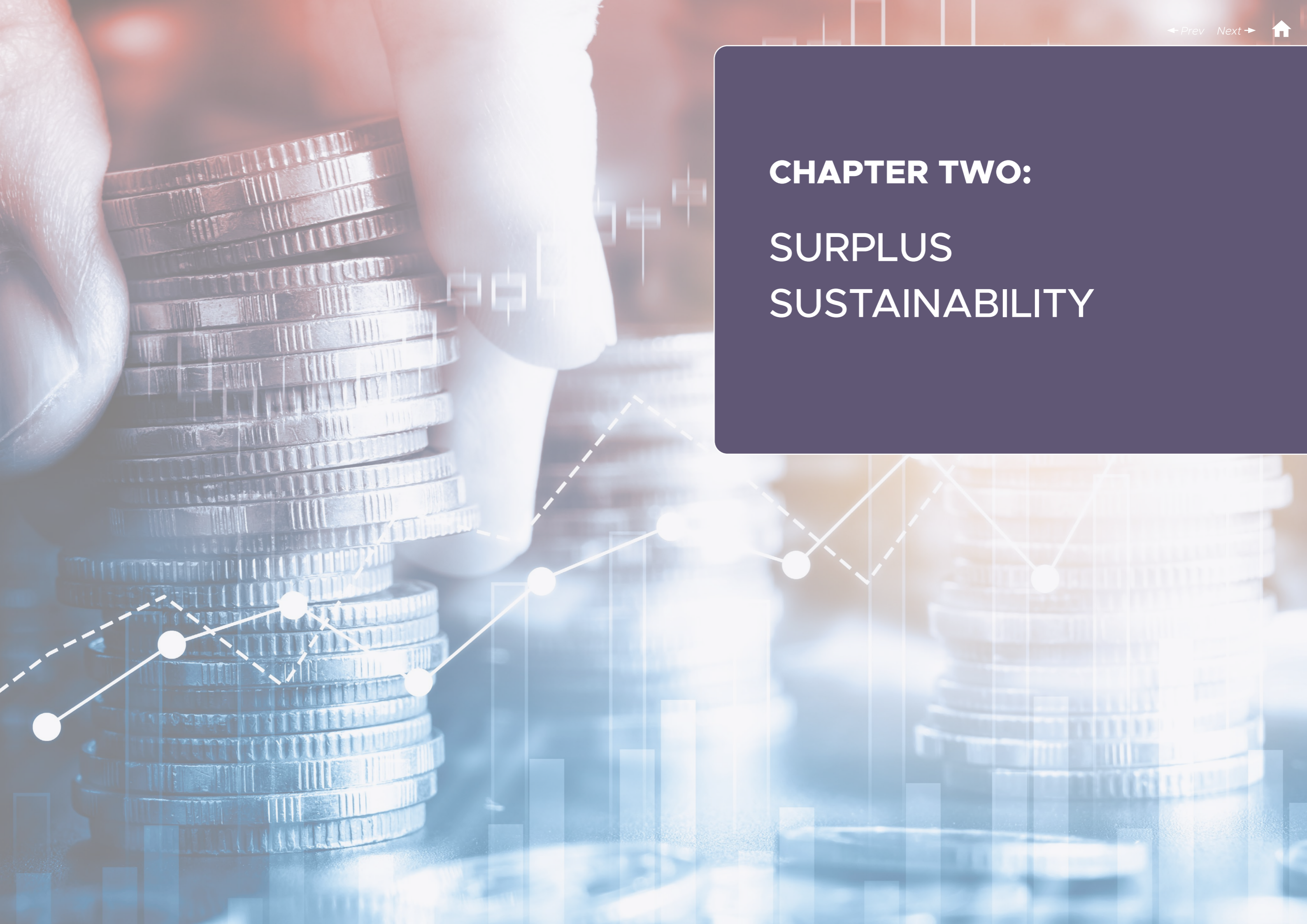
- **DB scheme funding has improved significantly, driven primarily by higher interest rates alongside asset performance, changes in longevity assumptions and earlier employer contributions.**
- **Surpluses are unevenly distributed across the DB landscape. Funding outcomes vary by scheme size, maturity, governance capacity and strategic endgame.**
- **Surplus levels depend on the funding measure used. A scheme may appear in surplus on a technical provisions basis while remaining below full buy-out funding.**
- **Funding positions remain sensitive to market conditions, particularly movements in interest rates and inflation expectations.**
- **Improved funding has shifted the policy debate, from deficit repair towards how surplus should be governed and under what conditions it may be used. This reflects several years of discussion about greater flexibility to access DB scheme surpluses.**
- **Different strategic endgames shape how surplus is interpreted, whether to support buy-out readiness, enable run-on strategies or provide additional funding resilience.**



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CHAPTER TWO: SURPLUS SUSTAINABILITY



This chapter evaluates:

The sustainability of current DB funding surpluses under different economic and scheme scenarios. Building on the drivers of improved funding positions identified in Chapter 1, the analysis examines how volatility in key funding factors, including interest rates, asset performance and longevity assumptions, may affect future funding outcomes.

Using stochastic modelling over a 25-year horizon, the chapter explores how the probability and timing of funding deterioration vary across different starting funding levels, scheme structures and investment strategies. The analysis illustrates how factors such as scheme maturity, accrual status and equity exposure influence the resilience of surplus positions and the likelihood that schemes fall below key funding thresholds.

The chapter then considers the implications of these findings for the policy debate on surplus extraction. In particular, it examines how the durability of surpluses may depend on funding headroom, investment risk and scheme design, and how these factors may shape the conditions under which surplus extraction may be considered appropriate.

Surplus sustainability is shaped by volatility in core funding drivers

As of February 2026, there is a record surplus of £273.7 billion

Chapter 1 identified the principal drivers of improved funding positions across much of the UK DB landscape, moving many schemes into surplus on commonly used funding measures.

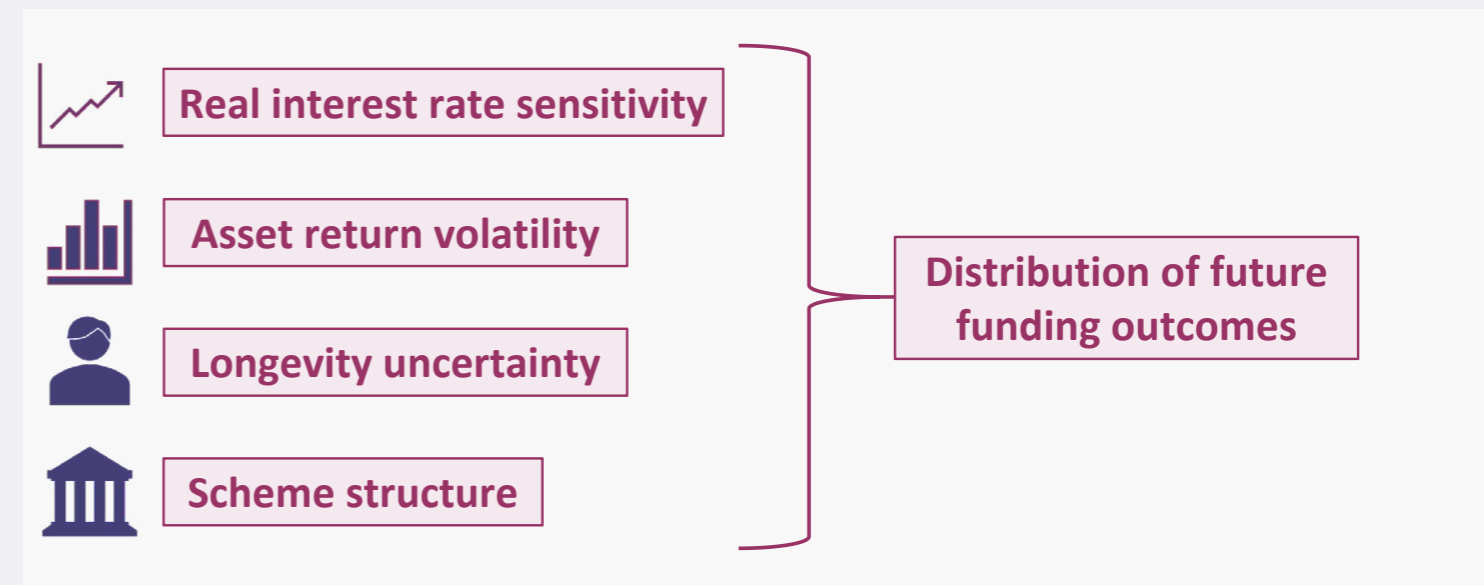
The central question for surplus sustainability is how resilient current funding positions are to changes in the underlying drivers of scheme funding. If economic or demographic conditions shift, even partially, funding headroom could reduce materially. The durability of surplus therefore depends not only on its size today, but also on the stability of the factors that support scheme funding over the medium to long term.

DB funding outcomes are inherently path dependent. A scheme that is in surplus at a given valuation date may remain well funded under a wide range of plausible future outcomes. However, the same starting funding level can also be consistent with materially weaker positions under adverse experience. Surplus therefore reflects the current position within a wider distribution of potential future funding outcomes.

That distribution is shaped by several interrelated factors (Figure 2.1).

Factors shaping DB funding outcomes

Figure 2.1



This section examines how these sources of volatility influence the sustainability of surplus positions. It draws on PPI modelling, which tests funding outcomes over a 25-year horizon across different starting funding levels, scheme structures and investment strategies.[PPI modelling (2026)] Given that the majority of UK DB schemes are now closed to new entrants, the modelling analysis centres primarily on closed schemes. Results for schemes open to new members are presented subsequently as a comparator.

By focusing on how probabilities of breaching funding thresholds vary across these dimensions, the analysis illustrates the chapter’s central argument: surplus sustainability depends on exposure to risk and headroom above thresholds, not on the headline funding ratio alone.

Discount rate sensitivity means small yield movements can materially change funding outcomes

For many DB schemes, the most significant single source of volatility is sensitivity to interest rates and discount rates. DB liabilities are long dated, with benefit payments often extending decades into the future, and are calculated by discounting projected future benefit cashflows. When discount rates fall, the present value of those cashflows rises. Unless assets increase by a similar amount, funding levels decline.

The marked improvement in aggregate funding positions in recent years was closely associated with higher gilt yields and interest rates, which reduced liability valuations across the sector.⁵⁷ This improvement does not remove the underlying sensitivity. A sustained reduction in long-term yields would increase liabilities and, unless hedging arrangements fully matched liability movements, reduce the buffer above funding thresholds, even if asset values remained broadly stable.

This sensitivity is particularly relevant for mature schemes with long duration liabilities. In such schemes, relatively modest downward shifts in discount rates can translate into material increases in liabilities. Where hedging is incomplete, or where asset movements do not align fully with liability movements, this can lead to a meaningful deterioration in funding level. Schemes with extensive interest rate hedging will be somewhat immunised from this, but may face residual basis risk, liquidity pressures or operational constraints, particularly where leveraged LDI strategies are used.⁵⁸

⁵⁶ PPI modelling (2026)
⁵⁷ PPF (2025b) and TPR (2023a)
⁵⁸ Hymans Robertson (2023) and TPR (2023a)

Surplus sustainability is shaped by volatility in core funding drivers cont.

Longevity improvements can gradually erode surplus positions over time

Longevity assumptions are another important factor shaping the sustainability of DB surpluses. While changes in interest rates or asset values can affect funding levels quickly, longevity risk tends to emerge more gradually. However, over long horizons even modest deviations from expected longevity trends can have a material impact on scheme liabilities.

Evidence in recent years suggests that improvements in life expectancy have slowed relative to earlier projections, and many schemes have updated their assumptions accordingly.⁵⁹ These revisions have supported improved funding positions by reducing the expected duration of benefit payments. Nevertheless, uncertainty around future mortality trends remains an important source of long-term liability risk.

Longevity risk accumulates gradually and compounds over time

If members live longer than estimated, additional pension payments must be made over an extended period. The financial impact of this risk typically emerges slowly, but compounds over time. Over a 25-year horizon, even small differences between estimated and realised longevity improvements can increase the value of liabilities and reduce funding headroom. This effect can be particularly relevant for schemes with long-duration liabilities. In such schemes, liability cashflows extend far into the future, and longevity assumptions therefore play a significant role in determining overall funding outcomes.

Longevity uncertainty also interacts with other elements of scheme risk. A scheme may experience favourable market conditions yet still see funding positions deteriorate if longevity improves faster than assumed. Conversely, schemes that are resilient to market volatility may still face gradual funding pressure through demographic change. In practice, economic and demographic risks operate simultaneously within the same distribution of potential funding outcomes.

The modelling framework in this report incorporates longevity assumptions in liability projections, treating demographic risk as part of the uncertainty around future funding paths. It does not model separate longevity shock scenarios.⁶⁰ The probabilities of breaching funding thresholds should therefore be interpreted as reflecting the combined influence of the assumptions built into the model, including interest rate movements, asset return variability and demographic change, rather than the impact of a specific longevity stress event.

In practice, schemes concerned about longevity risk may also choose to hedge part of that exposure, for example through longevity swaps. These instruments are available in the market and can reduce the need to retain surplus solely as a buffer against future changes in life expectancy assumptions.

Scheme maturity and accrual status influence how schemes respond to adverse experience

Across the UK DB landscape, schemes differ significantly in maturity, membership profile and accrual status. Many schemes are now closed to new entrants, and a large share are also closed to future accrual, with active members forming a relatively small proportion of total membership. In addition, scheme expenses can vary considerably by size. Administrative and governance costs tend to represent a larger share of assets in smaller schemes, which may slightly affect long-term funding outcomes.⁶¹

These structural characteristics influence how schemes respond to changing economic and demographic conditions over time. Mature schemes typically have a higher proportion of pensioners and are often cashflow negative, meaning benefit payments exceed contributions. As a result, funding outcomes may be more sensitive to investment performance and market movements.

By contrast, schemes that remain open to accrual may benefit from ongoing contributions and a broader membership base, which can provide greater flexibility over time. Schemes with similar funding ratios may therefore face different funding risks depending on their maturity and accrual structure.

The following section draws on PPI modelling to examine how these sources of risk translate into funding outcomes, focusing first on schemes closed to future accrual.

⁵⁹ TPR (2023b) and WTW (2025)

⁶⁰ PPI modelling (2026)

⁶¹ PPF (2025b)

Stronger funding positions improve resilience, but scheme design and investment risk continue to shape surplus durability

The previous section examined the key sources of volatility affecting DB funding outcomes. This section uses modelling analysis to explore how those risks may translate into future funding paths. The analysis centres on schemes closed to new entrants and future accrual, which represent the majority of the UK DB landscape, before presenting results for open schemes as a comparator. By examining probabilities of breaching funding thresholds across different scheme structures, investment strategies and starting funding levels, the modelling shows how likely it is that current surplus positions persist or deteriorate over time.

Scheme funding outcomes are projected over a 25-year horizon, incorporating uncertainty around investment returns, interest rates, longevity outcomes and scheme design. Rather than assuming a single future path, a distribution of possible funding outcomes is generated, enabling an estimate of the probability that schemes fall below key funding thresholds under varying conditions.⁶²

Scheme structure influences the probability of funding deterioration

A key factor in surplus sustainability is whether a scheme is closed to future accrual or retains some form of ongoing benefit accrual. The modelling compares funding outcomes for schemes with different structural characteristics while holding other assumptions constant, to assess how maturity and accrual status influence the probability of funding deterioration. The analysis begins with schemes that are closed to both new entrants and future accrual.

Schemes in strong surplus can still face an over 1 in 4 shortfall risk

Probability of breaching funding thresholds within 25 years, by starting funding level (run-on scheme, closed to new entrants 10 years ago, closed to future accrual)

Chart 2.1



⁶¹ Financial Conduct Authority, 2023a.

⁶² Oakley, M. et al., 2023.

⁶³ Thinking Ahead Institute, 2020.

⁶⁴ Financial Conduct Authority, 2024e.

⁶⁵ Scottish Widows, 2024.

For schemes that are closed to new entrants and have only recently closed to future accrual, liabilities are no longer increasing through new service, but the scheme continues to mature over time as benefit payments begin to exceed contributions (Chart 2.1). This changing payment pattern affects how funding levels evolve over time.

The modelling shows that higher starting funding levels reduce the probability of falling below key funding thresholds over the projection period. This reflects differences in how much deterioration is required to breach each threshold. For closed schemes, falling below full funding (100%) can occur following relatively modest adverse experience, such as lower investment returns or changes in discount rates. Additional funding headroom therefore provides a meaningful buffer against these more moderate outcomes.

By contrast, falling below lower thresholds, such as 70%, requires much more substantial cumulative deterioration over time. These outcomes are typically driven by more adverse combinations of experience, such as sustained periods of weak investment returns. As a result, while higher starting funding reduces the likelihood of such outcomes, the additional protection provided by extra surplus is smaller, as these more extreme outcomes are less sensitive to incremental increases in headroom.

For example, increasing the starting funding level from 100% to 120% reduces the probability of falling below full funding from 90% to 26% (a reduction of 64%). Over the same range, the probability of falling below 70% falls from 18% to 4% (a reduction of 14%) (Chart 2.1).

This shows that additional funding headroom provides stronger protection against moderate deterioration in funding positions than against more severe downside outcomes.

Schemes open to future accrual remain less likely to breach funding thresholds as funding improves

Probability of breaching funding thresholds within 25 years, by starting funding level (closed to new entrants, open to future accrual, starting from a stable population)

Chart 2.2

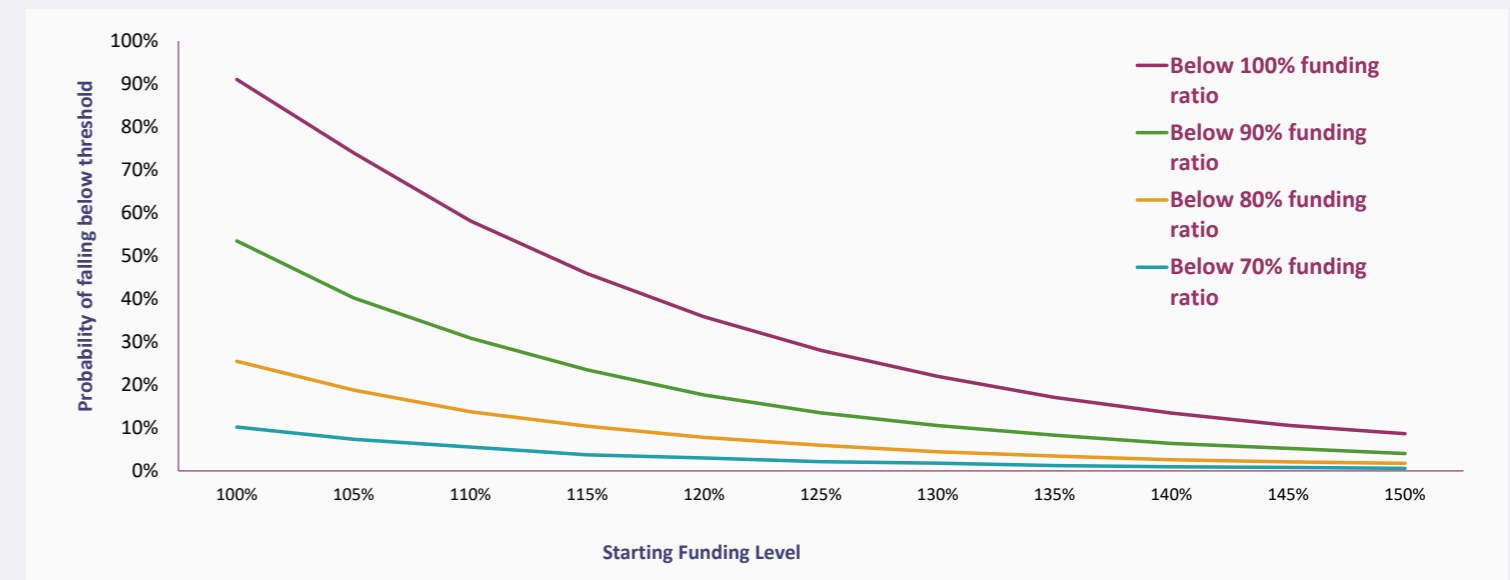


Chart 2.2 extends the analysis to schemes closed to new entrants but still open to future accrual. As with Chart 2.1, stronger starting funding levels reduce the likelihood of breach. However, the pattern of probabilities here reflects the continued growth of liabilities through ongoing accrual, which represents an additional source of funding pressure absent from fully closed schemes.

The comparison between Charts 2.1 and 2.2 highlights that scheme structure affects how risk is distributed over time. Schemes closed to future accrual avoid further liability growth through new service but become progressively more mature. Schemes that remain open to accrual retain contributions and a broader membership profile but continue to add future-service liabilities.

Taken together, the charts suggest that the durability of surplus depends not only on the level of funding headroom, but also on how the scheme's liabilities continue to evolve.

Stronger funding positions improve resilience, but scheme design and investment risk continue to shape surplus durability cont.

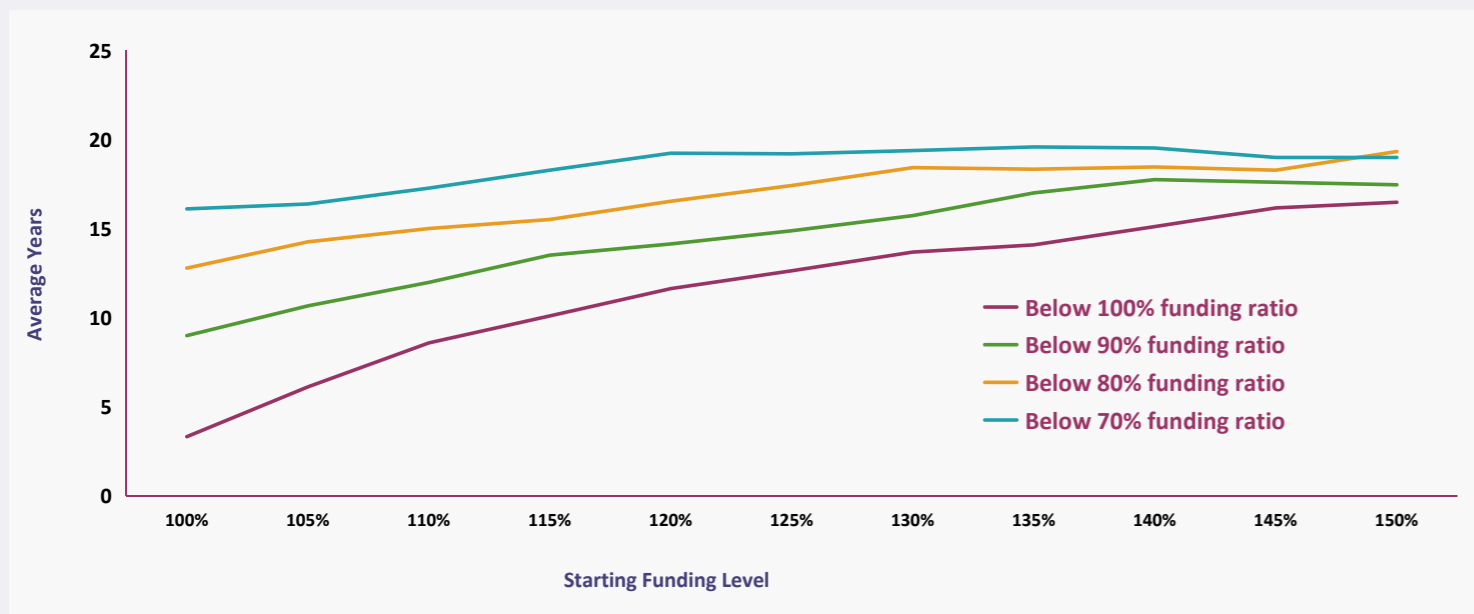
Scheme structure also affects the timing of funding deterioration

The probability of breaching funding thresholds does not fully capture the implications of scheme design, timing also matters. A scheme that falls below a threshold early in the projection period presents different governance and funding challenges from one that deteriorates gradually over a longer period.

Higher starting funding levels delay breaches of funding thresholds in closed schemes

Average years to breach funding thresholds within 25 years, by starting funding level (closed to new entrants and future accrual, starting from a stable population; among breaching scenarios)

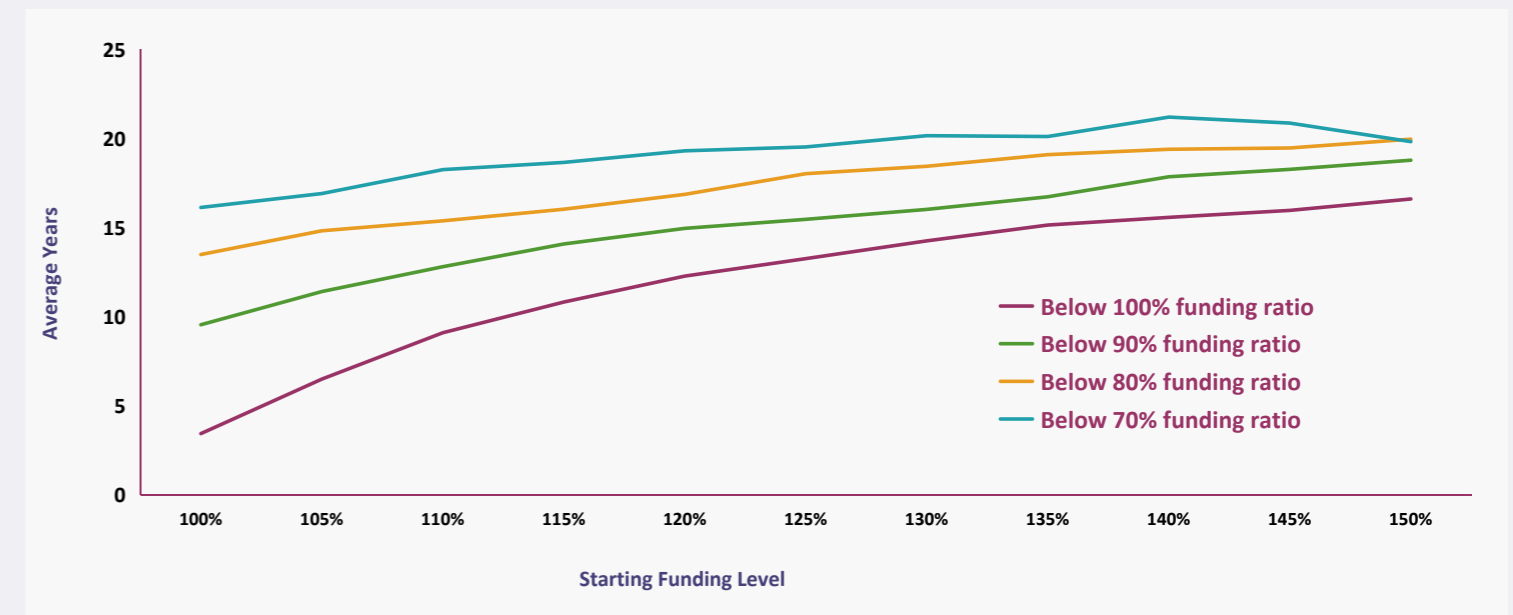
Chart 2.3



In schemes open to accrual, stronger starting funding positions delay breaches of funding thresholds

Average years to breach funding thresholds within 25 years, by starting funding level (closed to new entrants, open to future accrual, starting from a stable population; among breaching scenarios)

Chart 2.4



Charts 2.3 and 2.4 illustrate the average time taken for schemes to fall below funding thresholds in modelled paths where breach occurs. In general, schemes starting from higher funding levels tend to take longer to cross funding thresholds. However, the speed of deterioration varies across scheme structures.

For schemes closed to future accrual, funding deterioration may emerge more gradually as liabilities run off over time. Conversely, schemes that remain open to accrual may experience different dynamics as ongoing benefit accrual affects liability growth and funding volatility. These differences highlight that scheme maturity affects both the likelihood of adverse funding outcomes and time available for trustees and sponsors to respond through risk management or funding policy.

Higher equity exposure increases the range of possible funding outcomes

Investment strategy is another factor influencing the sustainability of DB surpluses. While stronger starting funding levels provide a buffer against adverse experience, the level of investment risk taken by a scheme can influence how that buffer evolves over time.

In recent years, many DB schemes have reduced allocations to equities and other growth assets as funding levels have improved and schemes have moved towards more defensive investment strategies.⁶³ Increasing allocations to liability-matching assets (e.g. bonds) can reduce short-term funding volatility by aligning asset movements more closely with liability valuations. Some schemes nonetheless retain exposure to return-seeking assets, particularly where trustees and sponsors are considering a run-on strategy aimed at generating additional returns.

Exposure to growth assets therefore introduces a trade-off between expected return and downside risk. Stronger investment performance can support surplus growth in favourable economic conditions. At the same time, greater exposure to equity markets can increase the probability that adverse market movements erode funding headroom.

⁶³ PPF (2025b)

Stronger funding positions improve resilience, but scheme design and investment risk continue to shape surplus durability cont.

Schemes with moderate equity exposure remain exposed to a range of possible funding outcomes

Probability of breaching funding thresholds within 25 years, by starting funding level (run-on scheme, closed to new entrants 10 years ago, open to future accrual; 30% equity allocation)

Chart 2.5

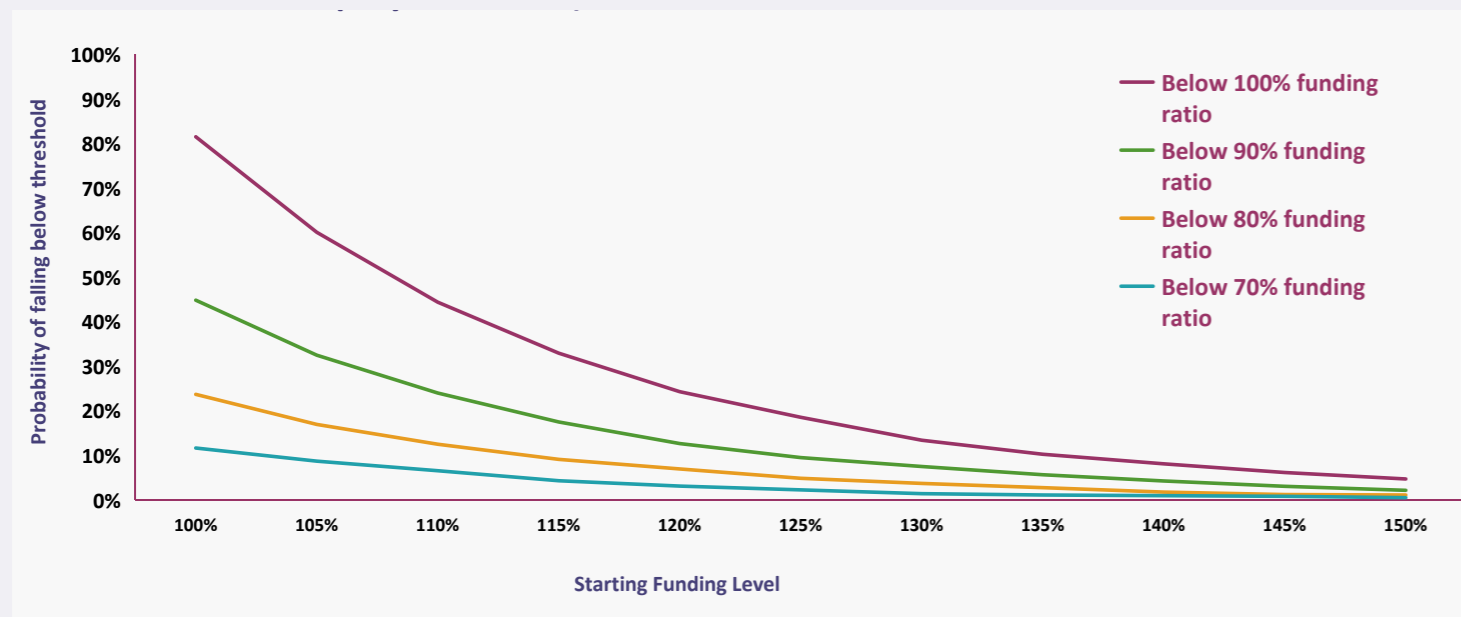


Chart 2.5 illustrates the baseline probability of breaching funding thresholds under a representative investment strategy with a 30% allocation to equities. As previously shown, higher starting funding levels reduce the likelihood of falling below funding thresholds. However, the chart also highlights that schemes remain exposed to a range of possible funding outcomes even when starting from surplus positions. The interaction between funding headroom and investment risk becomes clearer still when examining how outcomes change as equity exposure increases.

Moderate increases in equity allocation can reduce the probability of breaching funding thresholds

Difference in probability of falling below funding thresholds within 25 years, by starting funding level (Change from 10% to 30% equity allocation. Run-on scheme closed to new entrants 10 years ago and open to future accrual)

Chart 2.6

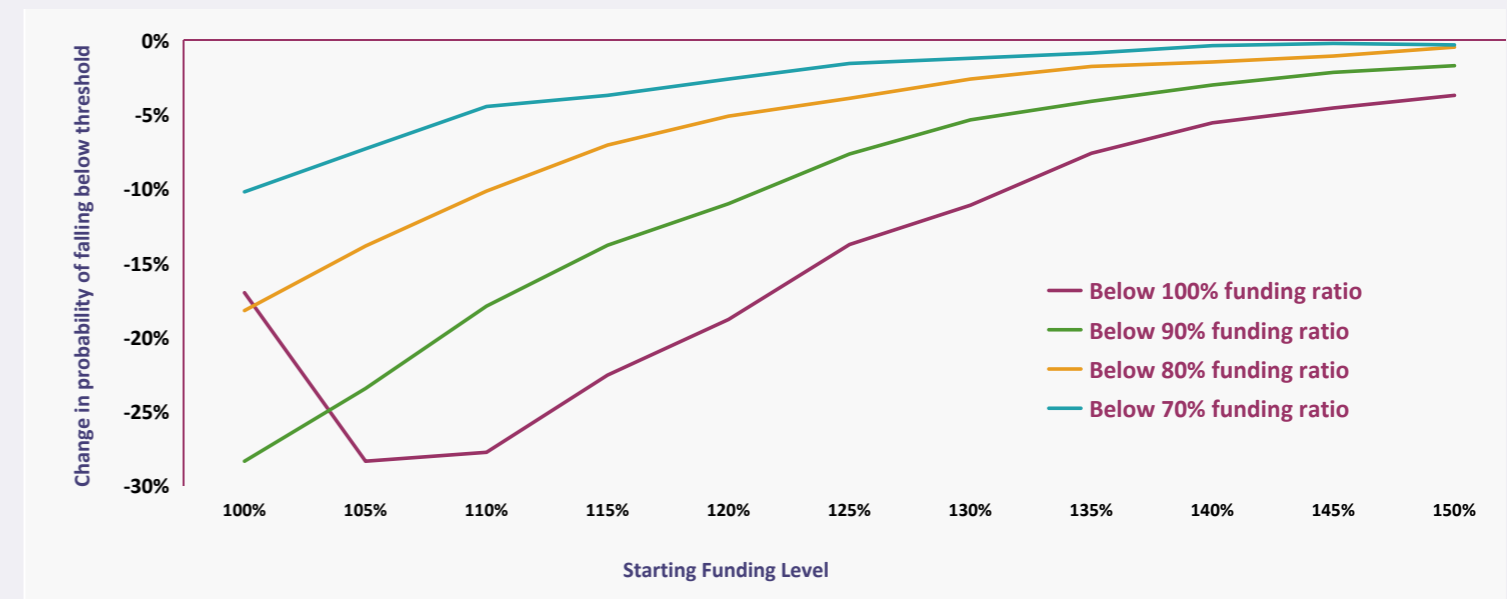


Chart 2.6 shows the impact of increasing equity allocation from 10% to 30% on the probability of breaching key funding thresholds over a 25-year period for a run-on scheme that is closed to new entrants and open to future accrual.

The modelling indicates that increasing equity exposure at these levels generally reduces the probability of falling below funding thresholds. This effect is observed across a range of starting funding levels and is most pronounced for schemes closer to full funding. For example, at a starting funding level of around 100%, increasing equity allocation from 10% to 30% reduces the probability of falling below 100% funding ratio by around 18%.

This result reflects the higher expected return on equities relative to bonds. Over the long term, the additional return from growth assets improves the average funding trajectory, reducing the likelihood that schemes become underfunded. At these levels of allocation, the increase in expected return appears to outweigh the impact of higher short-term volatility.

While higher equity exposure does introduce greater variability in investment outcomes, the modelling suggests that, at moderate allocation levels, this additional volatility is not sufficient to increase the probability of breaching funding thresholds. Instead, the overall effect is to modestly improve funding resilience over time.

At relatively low levels of equity allocation, increasing exposure to growth assets can improve expected outcomes without materially increasing downside risk. This contrasts with higher equity allocations, where increased volatility may have a more pronounced impact on funding stability.

For schemes pursuing a run-on strategy, this trade-off is an important consideration. Some exposure to growth assets may support surplus generation and improve long-term funding outcomes. However, the appropriate level of risk will depend on scheme-specific factors, including maturity, cashflow profile, funding level and the strength of the sponsor covenant.

Stronger funding positions improve resilience, but scheme design and investment risk continue to shape surplus durability cont.

Schemes starting at 105% funding still face a significant probability of falling below funding thresholds

Probability of falling below funding threshold within 25 years for schemes of different status (starting at 105% funding level)

Chart 2.7

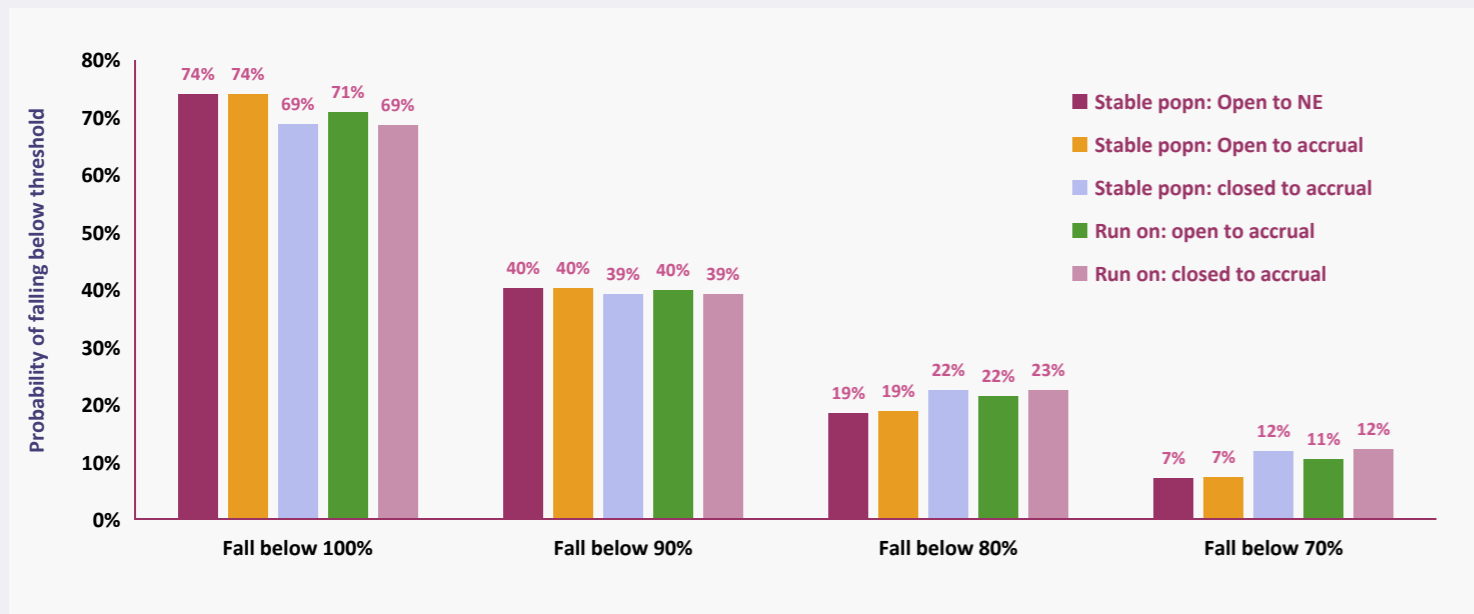


Chart 2.7 brings together these themes by comparing how scheme structure and investment approach interact. It shows that across all five scheme types modelled, schemes starting at 105% face a broadly similar probability of falling below 100% funding, ranging from around 69% to 74%. The pattern holds whether a scheme is open, closed to new entrants, or closed to future accrual. This reinforces the chapter’s central message: surplus durability depends not only on current funding, but also on how funding headroom interacts with investment risk and scheme design.

Breach probabilities decline as starting funding increases, but at a diminishing rate

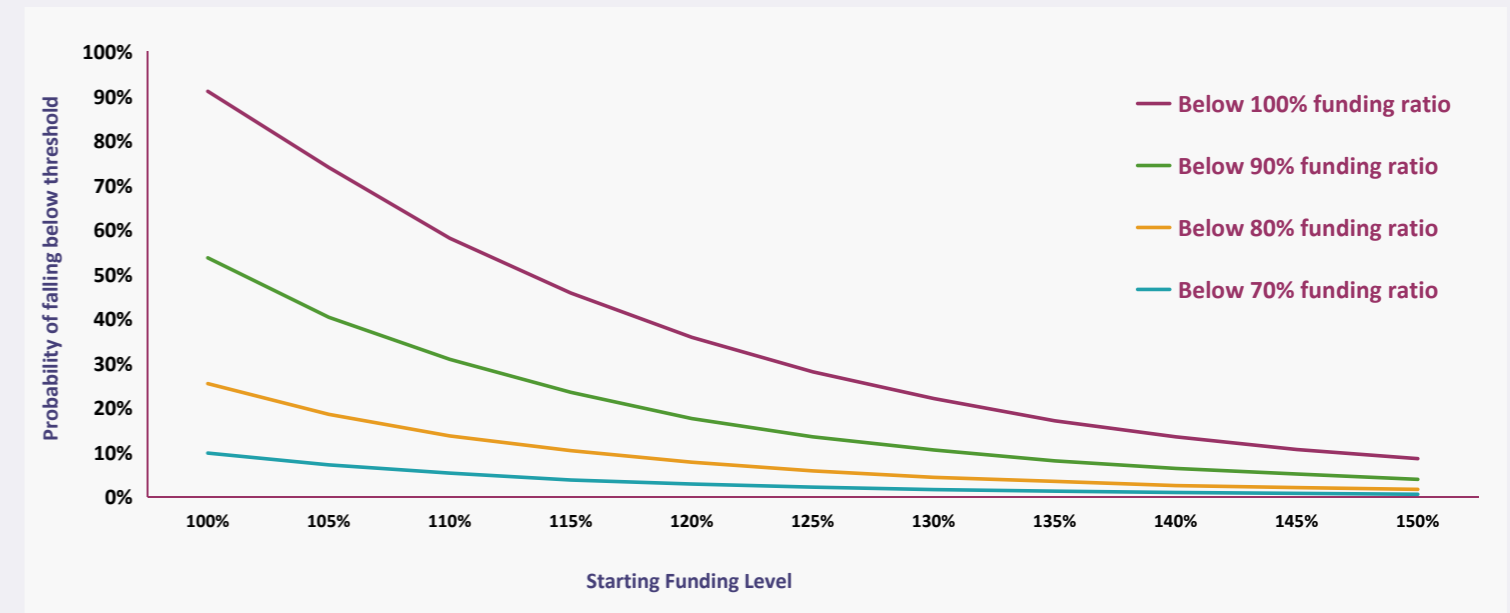
For completeness, Chart 2.8 and Chart 2.9 present the same analysis for a stylised scheme open to new members and future accrual with a stable population over time. In this context, a stable population means that members leaving the scheme are replaced by younger entrants, so that the age profile remains broadly constant over the projection period.⁶⁴

These charts show the same broad pattern as the closed-scheme results above: stronger starting funding reduces both the probability of falling below key funding thresholds and, where breach occurs, increases the average time before breach. As relatively few schemes remain open to new members, these results are best interpreted as a comparator rather than the chapter’s main focus.

Higher starting funding levels are associated with lower risk of falling below funding thresholds

Probability of breaching funding thresholds within 25 years, by starting funding level (open scheme, starting from a stable population)

Chart 2.8



As the starting funding level increases, the likelihood of falling below a funding threshold declines. Greater funding headroom allows schemes to absorb a wider range of adverse economic outcomes before funding levels deteriorate. The reduction in breach probability is most pronounced as funding rises from around full funding. In this range, relatively modest additional headroom can materially reduce downside risk. This reflects the nature of funding risk around the 100% level: when headroom is limited, moderate shocks can result in immediate deficit. Financial conditions can change rapidly in response to external economic or geopolitical developments, affecting interest rates, asset prices and funding levels. This highlights that the conditions which supported recent improvements in DB funding may not persist indefinitely.

At higher starting funding levels, the slope of the lines becomes flatter. Each additional percentage point of surplus continues to reduce breach probability, but by a smaller margin than at lower funding levels. Once a scheme is materially above a threshold, only more severe adverse scenarios are sufficient to erode surplus to the point of breach.

This dynamic has implications for discussions of surplus extraction. Where starting funding is only marginally above a threshold, relatively small reductions in headroom may meaningfully increase breach probability. At higher funding levels, limited surplus release may have a smaller proportional effect on breach probability. However, this conclusion depends on the wider risk profile of the scheme, including investment strategy, maturity and covenant strength. Schemes with higher growth exposure or covenants that are not strong see breach probabilities rise more sharply when headroom falls, while mature schemes are more sensitive to funding volatility due to shorter durations. In contrast, schemes with strong covenants or highly hedged, low-risk strategies experience smaller changes in breach probability for a given reduction in surplus.

⁶⁴ The details of the age distribution within the stable population can be found in the Modelling Appendix.

Stronger funding positions improve resilience, but scheme design and investment risk continue to shape surplus durability cont.

For surplus extraction policy, the implication is not that rate reversals are inevitable, but that surplus sustainability is contingent on continued resilience to interest rate volatility. Headroom above funding thresholds provides additional resilience against adverse economic shocks. The size of that buffer, and the speed at which it could be eroded under adverse rate movements, are central to assessing how durable today's surpluses are likely to be.

Stronger starting funding not only reduces the probability of falling below threshold, but can also extend the time available for trustees and sponsors to respond in adverse scenarios

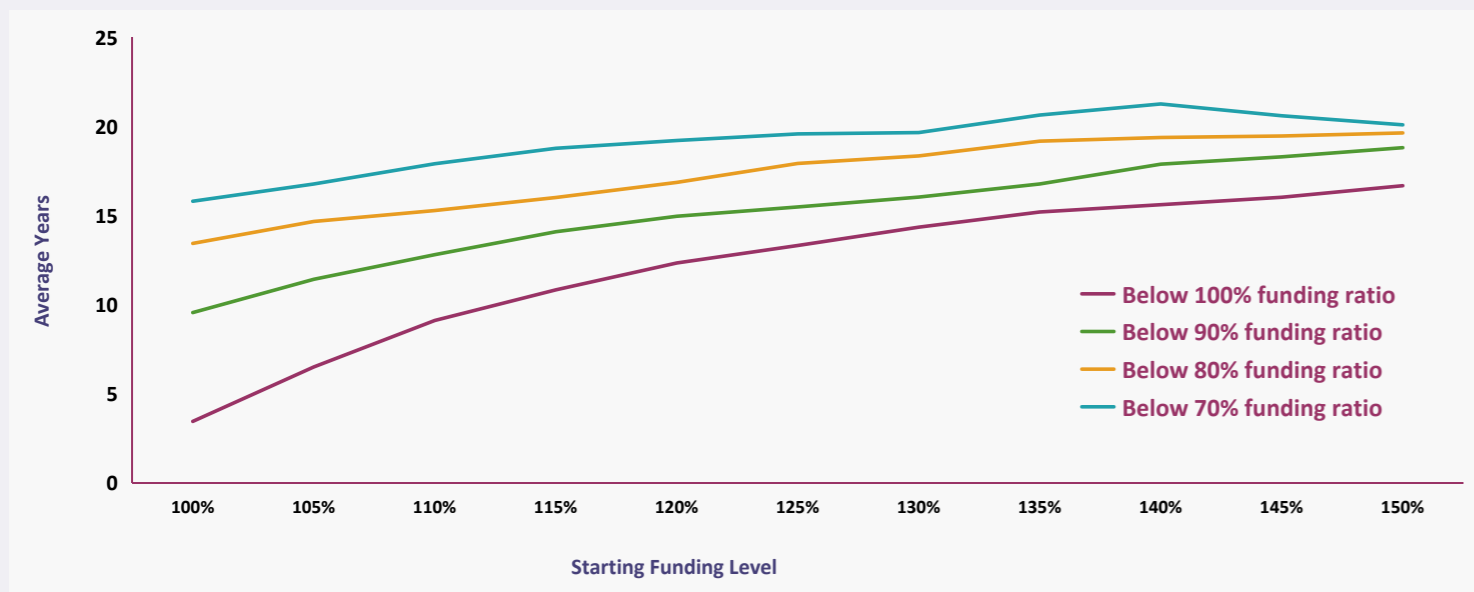
Probability alone does not provide a complete picture of sustainability. Timing also matters. A scheme that falls below a threshold early in the projection period presents different governance and funding challenges from one that deteriorates gradually over a longer period.

Chart 2.9 shows the average time taken to fall below each funding threshold, among scenarios where breach occurs. Schemes starting from higher funding levels tend to take longer, on average, to cross funding thresholds when deterioration occurs. The increase in time to breach is most noticeable for the 100% threshold as starting funding rises from lower levels. At higher funding levels, additional increases in starting funding add progressively less additional time before breach. Lower thresholds, such as 70%, are reached later on average than higher thresholds, reflecting that more severe deterioration typically takes longer to emerge.

Starting funding level impacts the time it takes to fall below funding thresholds

Average years to breach funding thresholds within 25 years, by starting funding level (open scheme, starting from a stable population; among breaching scenarios)

Chart 2.9



Both Chart 2.8 and Chart 2.9 convey that stronger starting funding reduces both the likelihood of breaching funding thresholds and, where breach occurs, extends the time available to respond.

Surplus sustainability reflects the interaction of funding headroom, scheme design and investment risk

PPI modelling results show that the durability of DB surpluses depends on several interacting factors rather than the headline funding ratio alone. Stronger starting funding levels reduce the probability that schemes fall below key funding thresholds and can extend the time available for trustees and sponsors to respond if funding positions deteriorate. However, the resilience of surplus positions is also shaped by scheme structure and investment strategy. Differences in maturity, accrual status, and cashflow profile influence how schemes respond to adverse experience. Schemes that are closed to future accrual may experience slower liability growth but may also become increasingly cashflow negative as memberships mature. Conversely, schemes that remain open to accrual may benefit from ongoing contributions and a broader membership profile while continuing to face exposure to future service liabilities.

Investment strategy adds an additional layer of variability to future funding outcomes. While exposure to return-seeking assets may support surplus growth, it also increases the range of possible outcomes over time. At moderate levels of equity allocation, PPI modelling suggests that higher expected returns can reduce the probability of breaching funding thresholds, particularly for schemes closer to full funding. This reflects the balance between increased return and additional volatility, and depends on starting funding level, scheme maturity and the wider risk profile.

Taken together, surplus sustainability depends not only on the level of funding headroom but also on how risk is distributed across scheme design and investment strategy. The resilience of current surplus positions therefore depends on how schemes respond to future economic and demographic developments.

The following section considers how these modelling insights may inform the policy debate on surplus extraction.

Surplus extraction policy must balance flexibility with the resilience of scheme funding

The modelling analysis suggests that the policy debate on DB surplus extraction cannot be considered solely in terms of whether schemes are in surplus at a single point in time. While current funding levels provide an important indication of scheme health, they do not fully capture how funding positions may evolve under different economic and demographic conditions.

Recent improvements in funding levels have prompted renewed policy interest in how surplus assets may be used. Government consultations have considered reforms that could make it easier for trustees to release surplus assets where schemes are well funded, while maintaining appropriate safeguards to protect member benefits.⁶⁵ In this context, the modelling results highlight that the sustainability of surplus positions depends on the interaction between funding headroom, investment strategy, scheme maturity and exposure to future economic conditions.

The policy implications of surplus extraction may depend not only on the existence of surplus but also on how resilient that surplus is under different scenarios. Schemes with similar funding ratios may face different future funding trajectories depending on their structural characteristics and investment risk. Therefore, the conditions in which surplus extraction is appropriate may differ between schemes.

The role of scheme strategy in shaping the use of surplus

Modelling results also suggest that the implications of surplus extraction may differ depending on the strategic direction of the scheme. As funding levels have improved, many schemes have been considering various endgame strategies, including buyout with an insurer, long-term run-on, or alternative consolidation approaches.⁶⁶

In schemes targeting buyout, surplus may represent an opportunity to enhance member benefits or strengthen funding resilience prior to transferring liabilities to an insurer. In these cases, trustees may prioritise stability and risk reduction in order to secure benefits as early as possible.

By contrast, schemes pursuing a run-on strategy may retain a greater allocation to return-seeking assets in order to generate additional investment returns over time. Under such strategies, surplus may potentially support discretionary benefit improvements, reductions in contributions or other forms of value for sponsors and members. However, as the modelling in this chapter illustrates, maintaining higher investment risk may also increase the variability of funding outcomes. The implications of surplus extraction therefore depend in part on how schemes balance these different strategic objectives and the level of risk they are prepared to retain as schemes mature.

Timing and economic conditions may influence extraction decisions

The analysis in this chapter also highlights that funding outcomes are sensitive to changes in key economic variables, including interest rates and asset returns. The timing of surplus extraction may therefore influence the level of risk associated with releasing surplus assets.

Periods of strong funding positions may reflect favourable market conditions, such as higher discount rates or strong asset performance. If these conditions were to reverse, funding positions could deteriorate even where schemes initially appear well funded. Previous analysis has shown that DB funding levels can change materially as interest rates and asset prices move, illustrating the cyclical nature of scheme funding outcomes.⁶⁷

Policymakers will consider how surplus extraction frameworks interact with economic cycles. If extraction is permitted when funding positions are temporarily strong, schemes may be more exposed to subsequent changes in market conditions. Conversely, where surpluses reflect sustained improvements in scheme funding and lower investment risk, they may prove more resilient over time.

Distribution of risks and benefits across stakeholders

A further policy consideration concerns how the potential benefits and risks associated with surplus extraction are shared between stakeholders. Surplus assets may be used in a number of ways, including discretionary benefit increases for members or payments to sponsoring employers.

Government consultation has emphasised that reforms are intended to allow both employers and members to benefit from strong scheme funding positions while maintaining protections for member benefits.⁶⁸ However, the balance between these outcomes may depend on scheme governance arrangements and trustee decision making.

The modelling results presented here suggest that surplus sustainability depends on exposure to future risks as well as current funding levels. Therefore, decisions about how surplus is distributed may need to consider not only the level of surplus available but also the potential impact of extraction on the resilience of the scheme under adverse scenarios.

Policy implications depend on the objectives of reform

The findings presented in this chapter suggest that the implications of surplus extraction policy depend largely on the objectives that policymakers seek to achieve. If the primary objective is to increase flexibility for well-funded schemes to make use of surplus assets, reforms may focus on reducing regulatory barriers to extraction. If the aim is to ensure far higher security for member benefits, policymakers may prioritise funding resilience and risk management.

In practice, the design of surplus extraction frameworks may therefore involve balancing several considerations. These include the level of funding headroom available within schemes, the risks associated with investment strategies and scheme maturity, and the potential distribution of benefits between employers and members.

PPI modelling results highlight that surplus positions are inherently sensitive to economic conditions and scheme characteristics. Discussions of surplus extraction may therefore need to consider both the existence of surplus and scheme funding resilience under a range of possible future scenarios.

⁶⁵ DWP (2025a)

⁶⁶ TPR (2023a)

⁶⁷ PPF (2025)

⁶⁸ DWP (2025a)

Conclusions

Improved funding positions across many UK DB schemes have created the conditions for renewed debate about the potential use of surplus assets. However, the sustainability of these surpluses depends on a range of interacting economic, demographic and scheme-specific factors. Stronger starting funding positions provide an important buffer against adverse experience, reducing the probability that schemes fall below key funding thresholds and extending the time available for trustees and sponsors to respond if funding conditions deteriorate.

The modelling in this chapter highlights that the durability of surplus positions is shaped not only by funding headroom but also by scheme structure and investment strategy. Differences in maturity, accrual status and cashflow profile affect how funding outcomes evolve over time, while exposure to return-seeking assets can support surplus growth but also increase volatility in adverse scenarios. As policymakers consider reforms to the rules governing surplus extraction, these factors suggest that the implications of such reforms may vary significantly across schemes with different risk profiles and strategic objectives.


Key messages

- **Stronger funding positions provide a buffer against adverse experience, reducing the probability that schemes fall below key funding thresholds.**
- **Surplus sustainability depends on more than funding headroom. Economic conditions, demographic assumptions and scheme design all influence how funding positions evolve over time.**
- **Scheme structure matters. Differences in maturity, accrual status and cashflow profile affect the likelihood and timing of funding deterioration.**
- **Investment strategy influences surplus durability. Exposure to growth assets may support surplus growth in favourable conditions but can increase volatility in adverse scenarios.**
- **The implications of surplus extraction reforms may vary across schemes, reflecting differences in funding resilience, investment risk, membership profile, and strategic objectives.**



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CHAPTER THREE: SURPLUS EXTRACTION: STRATEGIES, RISKS, AND SAFEGUARDS

This chapter examines:

- **How the accessibility and use of DB scheme surpluses are shaped by scheme endgame strategy. Schemes pursuing buy-out and those choosing to run-on operate under different risk structures, funding benchmarks and regulatory frameworks, which influence how surplus is interpreted and the threshold at which it may be considered distributable.**
- **The chapter analyses the trade-offs associated with surplus extraction, including how value may be allocated between employers, members and wider workforce outcomes, and the distributional and intergenerational implications of these choices.**
- **Finally, it considers the safeguards required to support responsible surplus access, including funding thresholds such as low dependency, forward-looking covenant assessment, trustee governance and regulatory oversight, and the role these play in ensuring member protection remains robust.**

Strategic differences in surplus use: Run-on and buy-out approaches

Endgame strategy determines how surplus is measured, interpreted and judged to be safe

For well-funded schemes, surplus can represent genuine opportunity to deliver value to members, employers, and the wider economy. However, depending on the scheme, surplus is not inherently an indicator of excess resources or distributable value. It represents a scheme-specific funding margin within a defined valuation basis and long-term risk management framework. The extent to which any of that margin can be accessed, the timing of any access, and the level of prudence considered appropriate are shaped by the scheme’s endgame strategy. While this chapter focuses primarily on buy-out and run-on as the most widely adopted approaches, trustees may also consider alternative endgame routes, including consolidation in superfunds or transfer to DB master trusts. These models can offer different combinations of governance, cost efficiency and risk transfer, and are increasingly part of the evolving DB landscape.

For schemes aiming to buy-out benefits with an insurer, surplus tends to be judged against a market priced settlement target. In practice, a scheme that is in surplus on an ongoing or low dependency basis may still fall short of the buy-out premium.⁶⁹ Buy-out pricing reflects insurer capital requirements, profit margins and transaction costs, meaning that the premium can exceed ongoing funding measures.⁷⁰

For schemes planning to run-on, surplus is more often framed as a buffer that supports resilience, reduces reliance on the sponsor, and creates optionality over time, including the option to secure benefits later if market conditions remain favourable. This aligns with the direction of travel in the DB funding regime, which expects schemes, as they mature, to reach a position of low dependency on the sponsoring employer, supported by an investment strategy that is highly resilient to adverse market movements.⁷¹

The distinction between these approaches is increasingly material in the current funding environment. The PPF 7800 Index reported an aggregate surplus of £273.7 billion for February 2026 on a Section 179 basis.^{72,73} However, differences between funding bases mean that strategic choices about surplus use cannot be inferred from aggregate surplus figures alone. Regulatory analysis indicates that materially fewer schemes are in surplus on a buy-out basis than on a low dependency measure. Around 30% of schemes, on an estimated full buy-out measure, remain less than 80% funded, representing approximately 17% of aggregate scheme assets.⁷⁴

Endgame strategy therefore determines whether reported surplus represents capital that can be considered for extraction, or whether it remains required to meet a higher buy-out funding threshold.

Under a run-on strategy, surplus functions as a resilience buffer and preserves strategic flexibility

Run-on strategies are heterogeneous. Some schemes run-on because buy-out is unaffordable. Others do so because the sponsor and trustees prefer to retain control and argue that, with effective risk management, benefits can be delivered securely while economic value is generated over time. In some cases, this also reflects a preference to maintain a direct relationship with members. Policymakers are considering how to facilitate this route where appropriate, while maintaining trustee discretion and prioritising member security.⁷⁵

Run-on is typically not an indefinite strategy and is often viewed as a transitional phase towards a longer-term end state, such as buy-out or consolidation. Even where schemes are running on, buy-out pricing is typically still monitored as a key valuation reference point, alongside technical provisions, including where surplus extraction is being considered. Under a run-on strategy, surplus typically serves three related functions.

First, it provides a margin against adverse experience. Even well-hedged schemes remain exposed to risks that can erode funding, including changes in inflation expectations, credit spreads, longevity and asset underperformance. The Pensions Regulator has emphasised that improved funding should not create complacency and that geopolitical and macroeconomic uncertainty can affect investment and covenant risk.⁷⁶ In this context, surplus is typically retained as a prudential buffer.

It also supports transition to low dependency. Under the revised funding framework, significantly mature schemes are expected to be fully funded on a low dependency basis and invested in accordance with a low dependency allocation.⁷⁷ Assets must broadly match benefit cash flows and be resilient to short-term adverse market movements, with the objective that further employer contributions are not expected under reasonably foreseeable circumstances. This framework can encourage schemes to retain surplus to build buffers above the low dependency threshold, particularly where sponsor strength is weakening or schemes are cash flow negative.

In practice, run-on strategies may also incorporate phased or partial buy-ins, where schemes gradually de-risk portions of their liabilities while continuing to run on. This allows trustees to retain exposure to residual surplus and sponsor covenant while increasing benefit security over time.

Finally, it preserves optionality. Maintaining surplus preserves flexibility for different endgame routes, including buy-out, staged buy-in, consolidation or continued run-on with structured extraction. Recent practice illustrates this approach.

⁶⁹ PPF (2025b)
⁷⁰ Hymans Robertson (2025)
⁷¹ DWP (2023)
⁷² PPF (2026a)
⁷³ Technical Provisions (TP) provide an appropriate alternative measure of scheme funding, as they reflect the benefits the scheme aims to pay in full. s179 funding levels are based on the cost of securing members’ benefits with the Pension Protection Fund (PPF), which involves reduced benefits for

many members. Any reference to a surplus on an s179 basis can therefore be interpreted in the context of these benefit reductions rather than as a measure of complete benefit security. See Pension Protection Fund (2021) An explanation of pension valuations.
⁷⁴ PPF (2025b)
⁷⁵ DWP (2025a)
⁷⁶ TPR (2025a)
⁷⁷ DWP (2023)

Case study

In December 2025, Aberdeen agreed to become the sponsoring employer of the Stagecoach Group Pension Scheme, which reported a strong surplus position and elected to continue running on. The arrangement allocated an initial £50 million of surplus to member benefit improvements, including a 1.5% uplift and enhanced inflation protection, while retaining substantial assets within the scheme and introducing governance “guardrails” designed to preserve long-term security. Aberdeen will receive a one-third share of any future distributed surplus, with the two-thirds being earmarked for members and subject to funding protections.⁷⁸ The transaction illustrates how surplus under a run-on strategy can be shared conditionally within a framework intended to preserve resilience. However, run-on also involves ongoing costs, including investment management, advisory and governance expenses, which are incurred over time rather than crystallised upfront. In this case, and with reference to Aberdeen sources, asset management and associated services represent a continuing cost to the scheme, which should be considered alongside the potential benefits of retaining surplus.

While some larger schemes have reportedly reassessed the timing of buy-out in light of proposed surplus reforms, stakeholder evidence and industry commentary suggests that buy-out remains the dominant endgame across much of the DB landscape.⁷⁹ This is particularly the case for smaller and medium-sized schemes, where the certainty, regulatory protection and risk transfer associated with insurance transactions remain attractive. Buy-out provides a clear endpoint by removing ongoing funding and investment risk from both trustees and sponsoring employers, which for many schemes continues to outweigh the potential benefits of retaining surplus under a run-on approach:

“At the small and medium pension scheme size, the majority are still planning to buy-out. I think even with these flexibilities, they’ve concluded that it’s more cost effective for them to go for buy-out. It’s the bigger schemes, so particularly the billion pound plus, to a lesser extent, sort of £500 to £1 billion who are planning to run-on. In terms of the number of schemes, still a large majority for buy-out. — Senior pensions consultant

⁷⁹ Harris and McDougall (2026)

⁸⁰ DWP (2025a)

⁸¹ LCP (2025)

⁸² DWP (2025a)

Surplus extraction under run-on depends on governance, risk management and sponsor covenant strength

For run-on schemes, the credibility of surplus extraction depends on the strength of governance and risk controls. The DWP consultation response records consistent stakeholder emphasis on robust safeguards and clear guidance to support trustee decision making.⁸⁰ The Stagecoach transaction incorporated surplus-sharing guardrails and funding protections within a continued run-on structure, illustrating how governance arrangements become central where value is accessed without transferring liabilities to an insurer.

“Amongst larger, more sophisticated pension schemes, we’re definitely seeing people saying, why don’t we run-on for a bit? Because our sponsor is strong, we’ve got the assets, we’ve got the risk buffer. We might insure, as I say, in 10 years’ time, but we don’t feel in a rush to insure today. — Pension risk transfer specialist

Stakeholder insights suggest that decisions to pursue run-on are closely linked to the strength and durability of the sponsor covenant. Where covenant risk is a concern, trustees may favour risk transfer. Conversely, where the sponsor is particularly strong, moving to an insurer represents a shift from reliance on sponsor covenant to insurer-backed security.

A run-on strategy that treats surplus as readily distributable may weaken resilience. Conversely, a strategy that treats surplus as permanently inaccessible may embed unnecessary trapped capital. The balance depends on funding strength, covenant quality and governance capability.

Under a buy-out strategy, surplus primarily supports transaction readiness and meeting a market-priced settlement target

Schemes targeting buy-out operate within a different strategic framework from those planning to run-on. The objective is to replace reliance on the sponsoring employer and trustee governance with an insurer’s contractual promise to pay benefits. Surplus is therefore assessed relative to the cost of securing accrued liabilities in full with an authorised insurer and forms part of the pathway to completing that transaction.

Buy-out pricing is influenced by market conditions, capital requirements and insurer balance sheet capacity. Even where a scheme appears well funded on trustee-based metrics, it may remain short of the premium required to transact. Surplus above technical provisions is therefore often regarded as necessary to reach full buy-out funding rather than available for extraction.

Execution risks and statutory constraints limit early surplus distribution

Buy-out transactions involve scheme-specific execution risks that can affect the funding margin required. These include data quality and benefit specification issues, Guaranteed Minimum Pension (GMP) equalisation, residual risks, insurer due diligence and transaction expenses, which may be reflected in pricing.⁸¹ Trustees therefore assess affordability against the anticipated buy-out premium incorporating execution costs, rather than against a headline surplus.

Historically, statutory constraints also limited surplus refunds in ongoing schemes. Section 251 of the Pensions Act 2004 required trustees to have passed a resolution before 6 April 2016 in order to pay surplus to the sponsoring employer, and not all schemes contained rule-based powers permitting such payments. These barriers restricted surplus refunds even as funding positions improved.⁸²

Buy-out funding targets reflect prudential regulation and structured risk transfer

Under buy-out, liabilities become policyholder obligations within the UK insurance prudential regime. Insurers are regulated under the Solvency UK framework administered by the Prudential Regulation Authority and are also subject to conduct regulation by the Financial Conduct Authority (FCA). They must hold capital against market, credit and longevity risks. Policyholder claims in respect of long-term insurance contracts may be protected by the Financial Services Compensation Scheme (FSCS) at 100%, without an upper monetary limit, subject to eligibility criteria.

The buy-out premium therefore reflects not only expected benefit payments but also the capital and risk margins required within a regulated insurance balance sheet. The bulk annuity market has made increasing use of funded reinsurance arrangements, although the System-Wide Exploratory Scenario (SWES) demonstrates that insurers have strengthened their resilience to market-wide stress events. Other supervisory exercises, including LIST 2025, have also examined the impact of funded reinsurance on insurer capital positions. Funded reinsurance affects how insurers structure their balance sheets, manage long-term liabilities, and transfer risk, and these dynamics are not always fully captured in system-level stress testing exercises.⁸³ In addition, regulators have indicated that such structures require close supervisory oversight to ensure capital standards remain robust.⁸⁴ Buy-out pricing incorporates structured capital buffers and risk management costs that schemes must fund in order to transfer liabilities.

Under a buy-out strategy, surplus is typically retained until liabilities are fully secured

Under a buy-out strategy, surplus is assessed against the funding required to secure liabilities in full with an insurer. Scheme data can be incomplete or inconsistent, meaning the accurate funding position may be subject to uncertainty. As schemes approach buy-out, data gaps and benefit complexities often become more visible, and insurers typically require high-quality, reliable data before pricing a transaction. Where data issues remain, pricing may reflect additional allowances for data cleansing or residual risk. This is reflected in stakeholder views:

It's a competitive market, so schemes need to get the basics right. Data quality and preparation can have a material impact on buy-out pricing.
— Pension scheme manager

A scheme that appears to have excess funding on a technical provisions or low dependency basis may therefore still require that margin to meet the insurer premium and complete the transaction. Extracting surplus before buy-out is achieved could reduce affordability or increase execution risk. As a result, schemes targeting buy-out are generally cautious about releasing surplus until the funding required to complete the transfer has been secured with sufficient confidence.

Once buy-out is completed and all member benefits are secured, any residual surplus may still be available for distribution, subject to scheme rules and relevant statutory requirements. Buy-out also delivers a number of structural advantages. It provides a high degree of member security through prudential regulation and insurer capital requirements, removes ongoing funding and covenant risk from the sponsoring employer, and simplifies governance by replacing trustee oversight with an insurance contract. In some cases, surplus has been returned to the employer following buy-out. For example, the trustees of the WH Smith Pension Trust completed a £1 billion full scheme buy-in with Standard Life in 2022, insuring the liabilities of all 12,950 members.

Following the subsequent buy-out and wind-up of the scheme, WHSmith received a £75 million cash refund from the remaining surplus.⁸⁵ This illustrates that surplus can still be realised after liabilities have been fully secured. From a risk transfer perspective, some advisers suggest that proposed surplus reforms may influence the timing of insurance transactions, even if they do not fundamentally change buy-out as the dominant endgame:

⁸⁷ Different stakeholders across the DB ecosystem may have commercial or institutional interests that shape their perspectives on endgame strategy. For example, insurers and risk transfer specialists may favour buy-out, while asset managers and advisers may have an interest in schemes continuing to run on. Employers may prioritise balance sheet certainty, while trustees focus on member outcomes and funding resilience. These perspectives do not determine decisions, but may influence how different options are presented and evaluated.

⁸³ Work and Pensions Committee (2024) Defined benefit pension schemes. Third Report of Session 2023–24. House of Commons.

⁸⁴ Jones and Cohn (2024)

⁸⁵ Pensions Age (2025)

⁸⁶ DWP (2018)

There's a fracture in pensions policy. Government policy says if you can afford to buy-out, you should. But sitting alongside that is the ability to extract surplus down to low dependency. That effectively creates a free choice, do they do a transaction with an insurer company to secure benefits, or do they move to a superfund and augment people's benefits.
— Senior pensions industry expert

Others point to a potential policy tension between encouraging schemes to secure benefits through buy-out and allowing surplus extraction at lower funding thresholds. In this view, reforms could broaden the set of strategic choices available to trustees and sponsors. As one stakeholder observed:

This suggests that reforms allowing surplus extraction may widen the range of endgame options available to schemes

Member security and sponsor outcomes differ across strategic models

The distinction between run-on and buy-out reflects differences in risk location, regulatory oversight, and compensation backstops.

Buy-out delivers security through prudential regulation and insurer capital. Run-on delivers security through funding strength, governance and employer covenant within the trust-based framework regulated by TPR. In the event of sponsor insolvency under run-on, compensation through the Pension Protection Fund can never provide full benefit replacement at all pension levels, and may be subject to limits and indexation restrictions.⁸⁶ Given that the statutory protection available to members differs between run-on and buy-out, trustees may require larger funding buffers before agreeing to surplus extraction under a run-on strategy.

For sponsoring employers, buy-out removes pension volatility and long-term balance sheet exposure, thereby providing 100% certainty over future funding obligations. Policyholder benefits under bulk annuity contracts are also expected to be protected by FSCS, which provides a backstop in the event of insurer failure. Buy-out is the most established endgame route that fully removes future funding risk and reliance on the sponsor covenant, as liabilities are transferred to an insurer. By contrast, run-on preserves flexibility and the potential to access surplus value over time, but it also retains exposure to adverse experience and ongoing risk. Buy-out converts uncertainty into a defined market price, whereas run-on manages that uncertainty within an ongoing funding and governance framework.

Strategic choice determines surplus extraction thresholds

These structural differences imply different thresholds for surplus extraction. Buy-out-focused schemes are likely to retain surplus until the funding required to secure liabilities in full has been achieved. Run-on schemes may consider surplus release once low dependency is met and buffers remain robust.

A well-designed surplus extraction framework should recognise that these strategic models operate under different risk structures. The policy challenge is to ensure that safeguards, funding thresholds and governance expectations are sufficiently robust that strategic shifts motivated by access to surplus do not materially weaken member security.⁸⁷

Surplus extraction can deliver value to members and sponsors, and it can change the incentives surrounding endgame decisions. It can also reduce a scheme's capacity to absorb adverse experience, particularly where the surplus is modest relative to the risks still being run. The key trade-off is therefore between releasing value now, and retaining a buffer that supports long-term security, strategic flexibility, and reduced reliance on the sponsor.

Surplus extraction can create immediate value for sponsors and members, but the form of value matters

The potential rewards from extraction depend on who receives value, and how that value is delivered. In policy discussions and industry submissions, three broad routes are typically highlighted.

First, value can be returned to the sponsoring employer, for example as a cash payment, or in ways that improve corporate balance sheet flexibility and investment capacity. Employer access is one of the stated motivations for reform proposals, framed in terms of productive finance and wider economic impacts, although the scale of any behavioural response is uncertain and likely to vary by sponsor circumstances.⁸⁸ Stakeholders also describe a potential behavioural shift once surplus becomes accessible.

Risk and reward trade-offs of surplus extraction depend on timing, funding headroom and how risks are shared

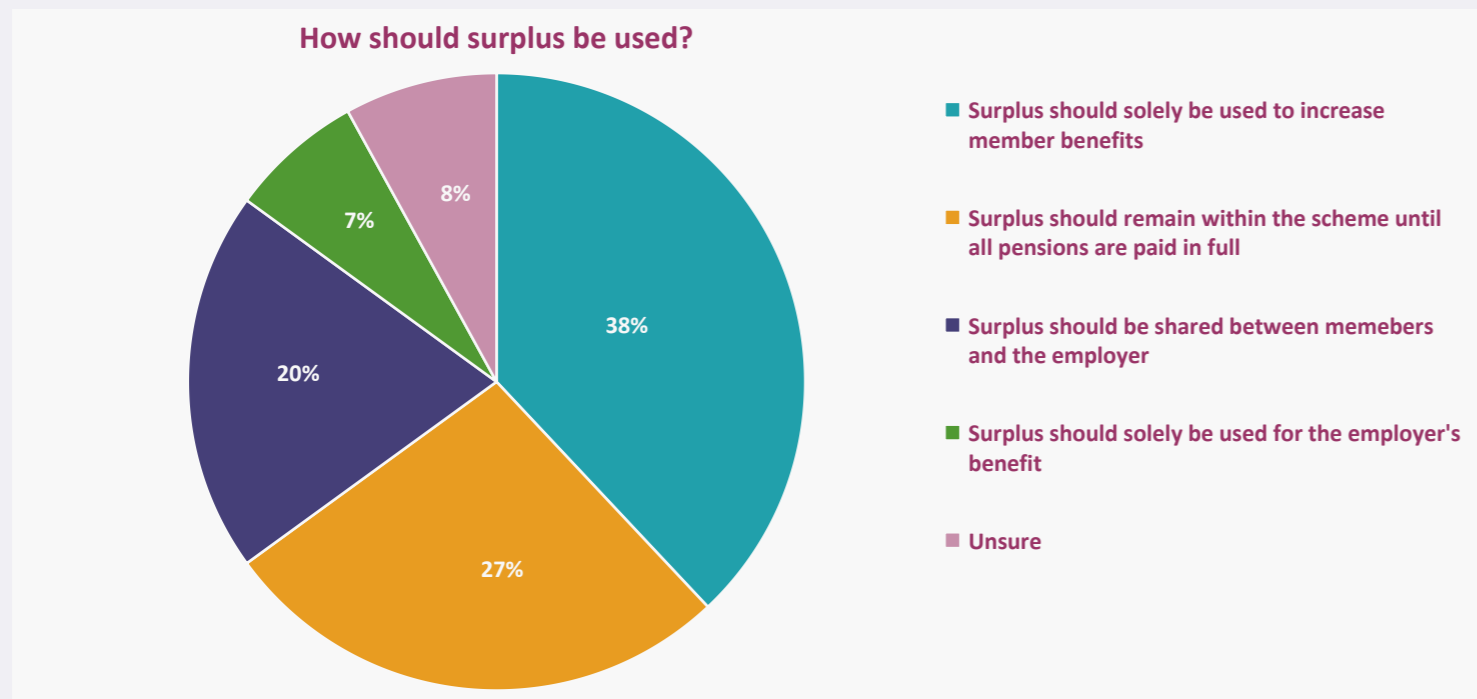
“ If I can reach 115% funding and secure a buy-out, I eliminate future deficit contributions. That was the old mindset. Now, if low dependency is 106%, the additional 9% can feel like surplus capital. Paying 115% to an insurer means giving up that 9%, whereas a superfund at 110% could remove the liability while retaining 5%. Psychologically, that surplus starts to feel like the finance director's money. — Senior pensions industry expert

Second, value can be directed towards members, including discretionary benefit improvements or one-off additional payments where scheme rules and trustee discretion allow. Member survey evidence suggests that preferences are not uniform, but that there is a clear tilt towards member benefit enhancement or the retention of surplus as a security buffer (Figure 3.1).⁸⁹

Members most commonly prioritise using surplus to increase member benefits

Proportion of DB members selecting different options for potential surplus use, Hymans Robertson survey of 1,000 members (2026)

Figure 3.1⁹⁰



While member sentiment leans towards benefit enhancement or retained security, there is some openness to shared approaches. However, survey responses provide insight into perceptions rather than a definitive guide to trustee action, as they do not account for funding constraints, covenant strength, scheme rules, legal permissions or intergenerational trade-offs.

In practice, only well-funded schemes typically earmark surplus for members. One stakeholder noted:

“ Schemes aiming to use surplus for extra benefits (beyond the guaranteed pension) are typically larger schemes with stronger covenants. — Scheme actuary & trustee

Third, value can be used to support wider workforce outcomes, such as funding employer contributions to a DC scheme. This route has been cited by some advisers as a practical channel for sharing value, particularly where the DB scheme is closed and the employer's current pension provision is DC.

This possibility sits within a broader shift in employer pension spending. Total DC contributions reached £7.6 billion in 2024 and now significantly exceed those paid into DB plans where both arrangements are present, with 67% of total pension contributions directed towards DC provision.⁹¹ Improved DB funding levels have coincided with growing interest in extracting economic value from DB schemes on an ongoing basis. However, disclosed practice remains limited. Of 82 companies analysed, only two explicitly stated that surplus had been used to fund DC benefits.⁹²

From a distributional perspective, this approach can raise intergenerational questions. Many employers operate a closed DB scheme for pensioners and deferred members alongside a DC scheme for active employees, creating intergenerational considerations when surplus is used. Using surplus to subsidise DC contributions may shift value towards current employees, while pensioners and deferred members may see limited direct benefit. Trustees may therefore face complex decisions about how surplus is allocated, including whether to prioritise benefit enhancements for pensioners, address historical accrual features such as pre-1997 pensions that do not receive statutory increases in payment, or support the employer's ongoing pension provision for active staff.⁹³

Intergenerational fairness also has a temporal dimension. Decisions about surplus use today must be considered alongside the long-term sustainability of the scheme, particularly where extraction reduces buffers that protect future security. Where some cohorts perceive others as receiving preferential treatment, surplus sharing decisions can generate reputational risk and member concern.

Reducing surplus can affect resilience, with differing implications for members and sponsors

The principal risk associated with surplus extraction is that it may increase the probability or severity of a future deficit. DB funding remains sensitive to market conditions and demographic experience. Although interest rate and inflation risks are now largely hedged across much of the sector, schemes remain exposed to longevity risk and residual market volatility (SPP, 2026). For schemes that are cash flow negative, adverse experience may have more immediate funding consequences, particularly where reliance on future employer contributions is limited:

“ The biggest risk is you distribute surplus and then have a bad experience. If a black swan event comes along and you can't afford to provide promised benefits, that's clearly a disaster scenario. Trustees will be cautious about that and will want strong buffers and triggers in place. — Pension risk transfer specialist

The implications of this risk differ across stakeholders. If adverse experience occurs after surplus has been extracted, the scheme may require higher contributions, further de-risking, or revisions to its endgame strategy. Sponsors may face renewed funding obligations, although their capacity and willingness to provide support can evolve over time. Members, by contrast, are exposed to the security of promised benefits, particularly where the sponsor covenant weakens materially. In the event of employer insolvency, compensation is provided through the PPF under the statutory framework set out in the Pensions Act 2004, however it is very unlikely that compensation replicates full scheme benefits and varies according to member status and benefit structure.⁹⁴

These differing exposures help explain why trustees may treat surplus as a prudential margin rather than an immediately distributable resource, particularly under run-on strategies where the scheme retains long-term exposure to funding and covenant risk.

⁸⁸ DWP (2025a)
⁸⁹ Hymans Robertson (2026)
⁹⁰ Based on the survey referenced in Hymans Robertson (2026)

⁹¹ WTW (2025)
⁹² WTW (2025)
⁹³ Hymans Robertson (2026)
⁹⁴ PPF (2026)

Risk and reward trade-offs of surplus extraction depend on timing, funding headroom and how risks are shared cont.

Opportunity costs depend on what the surplus would otherwise have enabled

Assessing surplus extraction purely in terms of the immediate cash released risks overlooking the role surplus plays within a scheme’s capital structure. Surplus is not only a funding margin; it represents strategic capacity. Reducing that margin alters the scheme’s ability to manage risk, respond to market conditions and shape its endgame trajectory.

For schemes targeting buy-out, retained surplus can provide flexibility in managing transaction timing and pricing volatility. Insurer premiums are influenced by interest rates, credit spreads, capital requirements and market capacity. Where surplus is maintained, trustees may have greater scope to adjust asset allocation gradually, absorb pricing movements or meet transaction-related expenses without renewed reliance on the sponsoring employer. Extraction narrows that buffer and may reduce the range of market conditions under which buy-out remains affordable.

For schemes pursuing run-on, surplus supports risk-bearing capacity within the constraints of the low dependency framework. Even where interest rate and inflation risks are largely hedged, schemes remain exposed to longevity and broader market risks. Retained capital allows trustees to manage short-term volatility without triggering covenant reliance or forced strategic adjustments. Reducing surplus can therefore limit the margin available to absorb shocks, particularly for mature or cash flow negative schemes where time and future contributions offer limited scope to recover losses.

As shown in Chapter 2, additional funding headroom provides stronger protection against more moderate deterioration in funding positions than against more severe downside outcomes.⁹⁵ This means that surplus can play a critical role in protecting against more likely adverse outcomes, even where it has a more limited effect on extreme scenarios.

Surplus can also support responsiveness to emerging demands that are not always visible in headline funding measures. Compliance with the revised funding regime, data rectification exercises including GMP equalisation, operational remediation and member option projects can all require additional resources and governance capacity, the scale of which varies by scheme.⁹⁶ A stronger funding position may allow trustees to address such demands without materially altering investment strategy or funding plans. Reducing that position may instead increase reliance on future contributions or constrain governance choices. Stakeholders also highlight the operational pressures schemes are currently managing, suggesting that additional policy complexity can place further strain on administrative capacity. As one stakeholder noted:

Policy is sometimes developed without thinking about the operational reality. Administrators are already dealing with dashboards, GMP equalisation, the McCloud judgement in the public sector, and regulatory change. Adding further complexity in the short term creates real resource pressure. — Senior pensions industry expert

The opportunity cost of surplus extraction is therefore not confined to foregone investment return. It relates to the reduction in strategic flexibility and risk capacity embedded within the scheme’s funding structure. Whether this cost is material depends on the scale of the surplus, the scheme’s maturity, covenant strength and endgame objective. In some circumstances the residual buffer may remain robust; in others, its reduction may meaningfully constrain future choices.

Member preferences highlight reputational and governance trade-offs that sit alongside financial risks

Surplus decisions engage not only funding and financial considerations, but also governance and reputational dimensions. The way surplus is used can influence perceptions of fairness, legitimacy and trustee judgement, particularly where outcomes differ across stakeholder groups. Evidence from member research suggests that attitudes towards surplus are shaped by levels of trust, transparency and clarity of purpose, including whether members can identify either a direct benefit or a credible security rationale for retaining funds within the scheme. Preferences are not uniform and appear sensitive to how options are framed. Where the rationale for surplus use is clearly articulated and linked to fairness or long-term benefit security, member responses tend to be more supportive.⁹⁷

Recent public debate illustrates how surplus decisions can become focal points for wider concerns about fairness and covenant behaviour. In its response to the Government’s consultation on DB reform, the BP Pensioner Group argued that easing controls on surplus extraction should be accompanied by strengthened member protections. It cited BP’s UK pension scheme, which reportedly held a surplus of around £5 billion, and raised concerns that the employer had laid claim to the full surplus while discretionary cost-of-living increases were not granted, contributing to an estimated 11% real-terms reduction in an average £17,000 pension over two years.⁹⁸ The group proposed additional safeguards, including enhanced member trustee representation, a supermajority member vote for extraction, employer-backed protection against future shortfalls, and linking reduced surplus tax to restoring eroded benefits.

While these proposals extend beyond the Government’s current framework, the episode illustrates that surplus extraction is often interpreted through the lens of covenant conduct and perceived alignment between sponsors and members. Even where funding appears strong, allocation decisions can influence confidence in governance and the perceived durability of employer support.

For trustees and sponsors, this introduces a governance trade-off alongside financial risk assessment. Deploying surplus to deliver visible benefit enhancements may support member confidence and demonstrate responsiveness. By contrast, releasing surplus to the sponsoring employer may require more extensive explanation to demonstrate how the decision is consistent with members’ interests and the scheme’s long-term security. The credibility of that explanation will depend on funding strength, covenant quality and the robustness of safeguards.

At the same time, a decision to retain surplus indefinitely may also carry governance implications. Where funding is strong and policy developments are explicitly considering mechanisms for trustee-led surplus sharing under appropriate protections, members and sponsors may question whether a wholly precautionary stance remains proportionate. The governance challenge therefore lies in balancing prudence with transparency and ensuring that surplus decisions are demonstrably aligned with the scheme’s funding position, risk capacity and stated strategic objectives.

The central trade-off is between releasing value now and preserving a buffer that keeps options open

Taken together, the risk reward balance depends on three scheme-specific factors, the size and robustness of the surplus relative to plausible downside risks, the strength and trajectory of the sponsor covenant, and the endgame pathway the trustees are seeking to keep achievable. Extraction can be consistent with strong outcomes where it is treated as the use of a resilient margin above an appropriate funding and risk framework. It becomes higher risk where it erodes the buffer that is doing the work of keeping the scheme secure and strategically flexible through adverse experience.

⁹⁵ See Chart 2.1 in Chapter 2

⁹⁶ LCP (2025)

⁹⁷ Hymans Robertson (2026)

⁹⁸ BP Pensioner Group (2024)

Robust funding thresholds, covenant assessment and governance are central to managing surplus extraction risks

Surplus extraction engages questions of governance quality, decision-making discipline and regulatory oversight, alongside funding adequacy. Where surplus is to be accessed without materially weakening member security, safeguards are likely to need to operate across three dimensions: funding thresholds, covenant assessment and the decision-making process. These safeguards do not remove risk, but they can influence how risks are identified, assessed and managed.

“Low dependency was designed to give something like a 98% probability that members receive their full benefits. It isn’t a 50-50 outcome. It’s a very high probability funding position. If you run-on at that level, the system is designed to generate surplus.”
 — Senior pensions industry expert

Low dependency alone does not determine an appropriate extraction threshold

A central safeguard in any surplus extraction framework is the level of funding that must be achieved and sustained before surplus can be distributed. Under the revised DB funding regime, significantly mature schemes are expected to reach and maintain a low dependency funding position supported by a low dependency investment allocation.⁹⁹

TPR defines a low dependency funding basis as one in which actuarial assumptions are set so that, if the scheme were already funded on that basis and assets were invested in accordance with the low dependency investment allocation, it would be expected that no further employer contributions would be required. This is commonly referred to as the “low dependency test”.¹⁰⁰ Regulatory stakeholders involved in the creation of the funding code emphasise that low dependency was designed as a high-confidence position.

The definition of low dependency is relevant to surplus extraction because it sets a minimum resilience standard rather than a guaranteed safety margin. The low dependency test is framed around reasonably foreseeable circumstances. It assumes that, if the scheme is funded on that basis and invested accordingly, additional employer contributions are not expected. It does not mean that funding cannot deteriorate, or that the scheme is insulated from market volatility, longevity changes or covenant weakening.

A scheme that has only recently achieved low dependency may therefore have limited headroom above that threshold. Small adverse movements in markets or assumptions could move it back below low dependency. Trustees considering extraction may therefore need to assess not simply whether low dependency has been achieved, but whether funding exceeds that level by a margin that is robust to downside risk. This could involve examining how funding would respond to adverse market movements or a deterioration in covenant strength. The distinction is between surplus that represents a resilient buffer and surplus that reflects only a narrow excess over the regulatory benchmark.

Stakeholders also emphasise that this buffer should be assessed in relation to the strength of the covenant and the scheme’s ultimate fallback position if the sponsor were unable to support the scheme. As one specialist noted:

Stakeholder responses to the DWP consultation similarly emphasised that surplus access should not compromise the scheme’s ability to maintain low dependency through periods of market volatility or covenant weakening.¹⁰¹ This suggests that safeguards may need to consider not only whether the threshold has been met at a point in time, but whether it is likely to remain sustainable following extraction.

For schemes targeting buy-out, the relevant benchmark is typically the full buy-out cost, including allowance for execution risk and pricing volatility. A scheme that appears in surplus on a low dependency basis may still remain below buy-out funding. In such cases, extraction prior to securing the buy-out objective would affect the probability of completing the transaction. In practice, the extraction threshold in buy-out-focused schemes is therefore determined by the endgame objective rather than by low dependency alone.

The sustainability of surplus extraction depends on covenant strength and its future trajectory

Funding resilience cannot be assessed independently of the sponsor covenant. Surplus extraction reduces the financial margin available to absorb adverse experience, and therefore increases the extent to which the scheme may need to rely on employer support if funding deteriorates. The strength, durability and outlook for the covenant are therefore integral to any assessment of whether surplus can be accessed without materially weakening member security.

TPR has consistently emphasised that covenant assessment should be forward-looking and proportionate to the level of risk being run within the scheme.¹⁰² Covenant strength is not a static measure of current profitability or balance sheet position. It encompasses the employer’s legal obligation and financial capacity to support the scheme over time, including cash flow generation, access to capital, business prospects, structural subordination and competing claims on resources.

In a surplus context, the relevance of covenant assessment becomes more pronounced. Where the covenant is strong, well-capitalised and expected to remain so over the medium term, trustees may judge that some reduction in funding headroom remains consistent with member protection, particularly if low dependency has been achieved and stress testing indicates resilience. In contrast, where the covenant is constrained, cyclical, highly leveraged or exposed to structural change, extraction may materially increase downside risk, even if headline funding metrics appear robust.

Surplus extraction also alters the balance of risk over time. An employer receiving surplus today may not retain the same financial capacity or corporate structure in future years. Corporate events, refinancing, dividend policy, mergers or shifts in market conditions can alter covenant quality. If adverse experience occurs after extraction, the scheme’s ability to recover may depend on a covenant that has weakened or been reshaped. Trustees therefore need to consider not only current covenant visibility, but the plausibility of future deterioration and the implications for members if funding buffers prove insufficient.

In practice, governance safeguards may require a more granular covenant analysis where extraction is contemplated than would be required under a purely deficit-repair framework. This could include scenario analysis, assessment of contingent security, and consideration of how surplus release interacts with other corporate financial decisions. The covenant therefore forms part of the financial structure underpinning benefit security. Where surplus is reduced, the relative importance of that support increases.

Robust process and transparent decision-making are central safeguards in any surplus regime

Quantitative funding thresholds are only one element of a safeguard framework. The process through which trustees reach a surplus extraction decision is itself a material control. Decisions to release surplus require trustees to balance competing stakeholder interests, assess long-term funding risk, and demonstrate that member interests have been properly considered in accordance with their fiduciary and trust law duties.

The Government’s response to the consultation on DB options emphasised that any surplus sharing framework should preserve trustee discretion and be supported by clear governance expectations.¹⁰³ This reflects the reality that surplus extraction is not a mechanical outcome triggered solely by funding metrics. It is a judgement-based decision that sits within a broader funding and endgame strategy.

⁹⁹ DWP (2023)
¹⁰⁰ TPR (2024)
¹⁰¹ DWP (2025a)
¹⁰² TPR (2023)
¹⁰³ DWP (2025a)

Robust funding thresholds, covenant assessment and governance are central to managing surplus extraction risks cont.

In practice, a robust decision-making framework is likely to include consideration of:

- the sustainability of funding above the relevant benchmark, including low dependency or buy-out targets
- the impact of extraction on the scheme’s endgame trajectory and transaction timing
- covenant strength, forward-looking employer prospects and downside scenarios
- distributional and intergenerational implications across member groups
- communication strategy and the potential impact on member confidence

Governance safeguards may therefore include documented scenario analysis, stress testing, independent actuarial and covenant advice, and clear trustee meeting records. As greater flexibility over surplus extraction is introduced, some stakeholders suggest that these processes may need to be applied more consistently and, in some cases, supported by clearer regulatory expectations. This could include enhanced approaches to managing conflicts of interest, more explicit requirements for long-term stress testing of funding resilience and strengthened consideration of forward-looking covenant assessment in surplus extraction decisions. This is reflected in stakeholder views, with some highlighting the need for clearer measurement frameworks and regulatory coordination:

“There is a concern that the focus is on making surplus easier to access rather than strengthening protections. This may increase the importance of clearer measurement frameworks and greater alignment across regulatory regimes.”
— Insurance market participant

These processes do not remove risk, but they can reduce the likelihood that surplus is released on the basis of point-in-time funding improvements without adequate consideration of volatility, structural uncertainty and longer-term resilience.

In this context, governance quality forms a core component of the safeguard framework surrounding surplus extraction.

Regulatory oversight serves both scheme-level protection and system-wide stability

Regulatory safeguards operate at more than one level. At the scheme level, TPR retains statutory powers to intervene where funding strategies, recovery plans or governance arrangements are considered inconsistent with legislative requirements or regulatory expectations. The revised DB funding regime reinforces this oversight by setting clearer expectations around long-term funding targets, low dependency planning and investment resilience, particularly for significantly mature schemes.¹⁰⁴ Surplus extraction decisions therefore sit within an established supervisory framework rather than outside it.

Regulatory attention also extends to the system as a whole. Policymakers have recognised that aggregate surplus figures, while substantial on certain measures, do not automatically translate into widespread extractable capital. The Government’s impact assessment distinguishes between an aggregate low dependency surplus of around £160 billion across the DB universe and a central estimate of approximately £11 billion available to be released over the next ten years.¹⁰⁵ This reflects assumptions about scheme behaviour, funding distribution, rule powers and trustee discretion.

Regulatory oversight therefore performs two related functions. At the scheme level, it seeks to ensure that extraction decisions remain consistent with funding resilience, covenant strength and trustees’ fiduciary duties. At the system level, it underpins confidence in the DB framework by demonstrating that surplus reform operates within established prudential parameters rather than signalling a relaxation of funding discipline.

Perceptions of how and when surplus can be accessed may influence scheme strategy, endgame decisions and risk appetite. Clear regulatory expectations are therefore relevant not only to member protection within individual schemes, but also to maintaining stability and confidence across the wider DB system.

The appropriateness of surplus extraction varies across a heterogeneous DB landscape

Stakeholder evidence consistently indicates that surplus extraction is unlikely to be suitable in all circumstances. The DB universe is diverse in terms of scheme size, maturity profile, governance capability and covenant strength.¹⁰⁶ Funding resilience, endgame objectives and trustee resource differ materially between large, well-resourced schemes and smaller arrangements with more limited advisory support.

For some schemes, particularly those with sophisticated governance structures and strong covenant visibility, the analytical and operational demands of robust surplus assessment may be manageable within existing frameworks. For others, especially smaller schemes or those with constrained trustee resource, the proportional burden of stress testing, covenant review and legal assessment may be more significant relative to scheme size. In such cases, the governance safeguards required to support prudent extraction may be harder to evidence, even where headline funding metrics appear strong.

This heterogeneity has implications for regulatory design. Safeguards must be sufficiently robust to preserve funding discipline and member protection, yet sufficiently proportionate to accommodate differing scheme characteristics and endgame strategies. A single quantitative funding threshold is unlikely to be determinative in isolation. Complementary qualitative assessment of governance capacity, covenant outlook and risk tolerance is likely to be necessary to reflect the diversity of the DB landscape.

In this context, proportionality is not a relaxation of standards but an acknowledgment that resilience is shaped by scheme-specific factors. The suitability of surplus extraction therefore depends not only on the level of surplus, but on the broader institutional and financial framework within which it sits.

The effectiveness of surplus reform depends on calibrated and consistently applied safeguards

Safeguard design is likely to determine whether surplus extraction can occur without materially weakening member security. This is because surplus access is not simply a question of whether a scheme is above a single funding threshold at a point in time. It depends on the extent to which funding remains resilient after extraction, the strength and outlook of the sponsor covenant, and whether trustee decision making is supported by robust evidence, appropriate advice, and clear documentation. In practice, the effectiveness of reform is therefore likely to depend less on headline thresholds and more on how consistently these safeguards are applied across schemes with differing characteristics, endgame strategies and governance capacity.

¹⁰⁴ DWP (2023) and TPR (2024)

¹⁰⁵ DWP (2025)

¹⁰⁶ PPF (2025b)

Surplus extraction is suitable only where resilience remains demonstrably strong after capital is removed

Only schemes with funding materially above regulatory and endgame benchmarks are likely to support credible surplus extraction

Surplus extraction is more likely to be appropriate where funding strength is demonstrably resilient, not merely compliant with the low funding threshold. UK DB schemes are collectively in a historically strong position. Long-term funding indices have reported substantial aggregate surpluses, and low dependency measures indicate that many schemes have reduced reliance on future employer contributions. These measures point to improved sector-wide resilience.

However, aggregate statistics mask significant variation between schemes. A scheme that exceeds low dependency or technical provisions by a narrow margin may appear comfortably funded at a point in time, yet remain vulnerable to market volatility, longevity shifts or covenant deterioration. The critical distinction for trustees is therefore between funding that exceeds a threshold and funding that remains robust under stress, and credible surplus extraction requires the latter.

Recent transactions illustrate how this distinction operates in practice. The Stagecoach Group Pension Scheme, for example, entered into a run-on arrangement in which Aberdeen became the sponsoring employer, with a portion of surplus allocated to member benefit increases while retaining substantial assets within the scheme to preserve long-term resilience. The ability to release value in that case rested on a funding position materially above regulatory benchmarks and on a governance framework designed to maintain security post-extraction.

Where schemes are only marginally above relevant funding thresholds, the prudential rationale for retaining surplus as a buffer remains stronger. Extracting surplus in such circumstances may reduce resilience disproportionately, narrowing the margin available to absorb adverse experience. In those cases, apparent surplus may function more appropriately as contingency capital than as distributable value.

The durability of the sponsor covenant influences how much funding headroom can prudently be reduced

The strength and trajectory of the sponsoring employer remain central to assessing whether surplus extraction is compatible with member protection. Funding resilience does not sit independently of covenant support. Where surplus is reduced, the relative importance of the employer's capacity and willingness to provide future support increases.

The experience of Aberdeen Group's DB scheme illustrates how covenant strength and governance design shape surplus decisions in practice. As at December 2024, the scheme reported funding of 147% on a technical provisions basis and a surplus of approximately £827 million.¹⁰⁷

After considering buy-in and buy-out, and receiving confirmation from the Court of Session that surplus could revert to the employer on wind-up, the sponsor and trustees chose to continue running the scheme on in order to retain flexibility pending clarification of the Government's surplus reforms.

Under the current framework, surplus is being used in part to support DC contributions, while certain discretionary DB benefits have been converted into guaranteed enhancements and further periodic increases may be considered. Trustees have indicated that surplus and liquidity must remain above agreed thresholds.¹⁰⁸ The arrangement is structured to allow review should legislation, funding conditions or strategic objectives change.

This case illustrates that surplus access can be embedded within a broader capital and risk framework where funding materially exceeds regulatory benchmarks, legal powers are clarified, and governance arrangements preserve strategic optionality rather than commit the scheme irreversibly to a single endgame path. Stakeholders similarly emphasise that trustees must carefully evaluate strategic options before committing to transactions that permanently alter the scheme's risk profile. As one stakeholder observed:

“As a trustee, you have to look at all your options, especially when you're considering something irreversible like an insurance transaction, because once you've done it, you can't back out.”
— Senior asset manager

Covenant strength, however, is not static. Corporate restructuring, refinancing, dividend policy, sectoral shifts or macroeconomic shocks can alter employer capacity over time. Trustees must therefore assess not only current covenant metrics but also the plausibility of future deterioration when determining whether surplus can be accessed without materially increasing downside risk. The tolerance for reducing funding headroom is inseparable from expectations about sponsor durability and long-term visibility.

Scheme maturity and cashflow profile influence how quickly funding resilience can be tested

The maturity of a scheme and its cashflow profile are material to assessing whether surplus can be accessed without increasing downside risk. Mature schemes, particularly those that are cashflow negative, have less capacity to recover from adverse experience over time. Where benefit outgo exceeds contributions and a significant proportion of assets are aligned to matching liabilities, the margin for absorbing shocks through future investment returns or employer support may be more limited.

In August 2025, Rolls-Royce completed a £4.3 billion full buy-in with Pension Insurance Corporation (PIC), covering the scheme's remaining liabilities and securing the pensions of 36,000 members, including 15,000 pensioners and 21,000 deferred members.¹⁰⁹ The transaction was described as the culmination of decades of funding improvements and risk management.

Similarly, large-scale risk transfer activity continues across the market. For example, the MMC UK Pension Fund completed a £1.9 billion buy-in with Standard Life in 2025, covering around 6,500 members. The transaction illustrates that schemes of different sizes are continuing to progress along a de-risking journey towards insurance solutions.¹¹⁰

The deal also illustrates in mature schemes, improved funding can be used to convert funding resilience into contractual security. By transferring risk to an insurer, trustees reduced ongoing exposure to market and longevity volatility, replacing scheme-level funding uncertainty with insured liabilities.

For schemes at an advanced stage of maturity, the tolerance for reducing surplus headroom may therefore be lower than for younger schemes with stronger cashflow profiles and longer recovery horizons. Suitability for surplus extraction depends not only on the level of surplus, but on how rapidly resilience could be tested under adverse conditions.

¹⁰⁷ Wolf (2025)

¹⁰⁸ Wolf (2025)

¹⁰⁹ Pension Insurance Corporation (PIC) (2025)

¹¹⁰ Standard Life (2025)

Surplus extraction is suitable only where resilience remains demonstrably strong after capital is removed cont.

Legal and tax frameworks shape feasibility but do not replace prudential judgement

The legal framework governing surplus payments and the associated tax treatment influence whether surplus extraction is technically and economically feasible. They do not, however, determine whether extraction is appropriate from a funding or member security perspective.

Historically, trustees could only make authorised surplus payments to an employer where a valid pre-6 April 2016 section 251 resolution was in place. In the absence of such a resolution, even schemes in substantial surplus could face structural barriers to employer refunds. The Government has since consulted on reforms intended to widen access to surplus, including proposals to remove the requirement for a historic section 251 resolution and to facilitate surplus sharing where trustees agree and specified safeguards are met.¹¹¹ These changes would expand the range of schemes for which extraction is legally possible.

Tax treatment also affects the economic incentives surrounding surplus use. From April 2024, the authorised surplus payments charge was reduced from 35% to 25%, lowering the cost of employer refunds, and aligning with the Corporation Tax rate for larger companies.¹¹² This change alters the financial calculus for sponsors considering whether to seek access to surplus, particularly where alternative uses of capital are being evaluated.

However, legal permissibility and tax efficiency are not substitutes for prudential assessment. A scheme may have the rule power to pay surplus and face a lower tax charge yet still be unsuitable for extraction if funding headroom is narrow, covenant visibility is limited or endgame objectives would be compromised. Conversely, schemes that are legally constrained may become eligible under reform, but the decision to extract would remain contingent on funding resilience, covenant durability and trustee judgement.

Legal and tax frameworks therefore shape the outer boundary of what is possible. They do not override the central question identified throughout this chapter: whether surplus can be removed while preserving a demonstrably robust margin of protection for members.

¹¹¹ DWP (2025a)

¹¹² HMT (2023)

Conclusions

The emergence of funding surpluses across the UK DB landscape has created new questions about how scheme assets may be used while maintaining member security. However, surplus is not a uniform or immediately distributable resource. Its interpretation and potential accessibility depend on a scheme's endgame strategy, funding framework and risk structure. Where surplus is accessed, value may be distributed in different ways, including payments to sponsoring employers, discretionary benefit enhancements for members or support for wider workforce pension provision.

The analysis in this chapter highlights that surplus extraction involves a trade-off between releasing capital and maintaining scheme resilience. Removing assets from a scheme reduces the buffer available to absorb adverse experience and may increase reliance on the sponsor covenant if funding conditions deteriorate. At the same time, for schemes where certain conditions are met, surplus represents meaningful opportunity: to enhance member benefits, support employer resilience, and demonstrate that a well-governed DB system can deliver additional value. As a result, decisions about surplus access are likely to remain scheme-specific and dependent on funding strength, covenant support, governance capacity and regulatory safeguards.

Key messages

- **Surplus is not a uniform or automatically distributable resource. Its accessibility depends on scheme strategy, funding framework and risk structure.**
- **Surplus may be allocated in different ways, including payments to employers, discretionary benefit improvements for members, or support for wider workforce pension provision.**
- **Surplus extraction creates trade-offs. Removing capital from a scheme reduces the buffer available to absorb adverse experience.**
- **Funding resilience and covenant strength are central considerations when assessing whether surplus can be accessed without weakening member protection.**
- **Robust governance and regulatory safeguards are essential, including funding thresholds, forward-looking covenant assessment and trustee oversight.**
- **Outcomes are likely to remain scheme-specific, reflecting differences in funding strength, scheme maturity, strategic objectives and risk tolerance.**



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CHAPTER FOUR: PRODUCTIVE FINANCE AND INDUSTRY IMPLICATIONS



This chapter examines:

This chapter examines how proposals to increase access to DB scheme surpluses interact with the UK’s productive finance agenda. It considers whether releasing surplus is likely to increase real-economy investment or primarily change the financial channels through which pension assets support economic activity.

The analysis distinguishes between headline estimates of aggregate DB surplus and the smaller, conditional flow of surplus that may be practically releasable once scheme objectives, trustee duties and market behaviour are taken into account.

It also explores how different endgame pathways, including scheme run-on and insurance risk transfer, influence how DB assets are invested across the financial system and the extent to which they support productive investment.

The productive finance impact from DB surplus extraction is likely to depend on how surplus is used

This chapter considers how reforms that make it easier to release DB scheme surplus to employers (and, in some cases, members) could affect productive finance and investment in the wider economy. It focuses on two related questions: whether surplus extraction is likely to increase real-economy investment (additional capital expenditure, R&D, business expansion), and what the realistic alternative outcome is if the assets remain within pension schemes or move through the risk transfer market.

Debate around DB surplus extraction has increasingly focused on its potential role in productive finance

Recent policy discussions have linked greater flexibility over DB surpluses to the Government’s wider economic growth agenda. In this report, productive finance refers to investment in assets such as listed equities, corporate bonds, private markets and other long-term investments that support economic activity.¹¹³ Within this framing, surplus assets that are currently retained within pension schemes are sometimes characterised as capital that could potentially be redeployed elsewhere in the economy, although they could be invested productively within the pension scheme. In May 2025, the DWP described proposed reforms as allowing trustees and sponsors to “safely release part of this surplus to boost investment and benefit scheme members”, while also noting that improved funding positions have reduced the scale of deficit repair contributions and strengthened employer balance sheets.¹¹⁴

The Government’s consultation response similarly situates surplus flexibility within the context of significantly improved DB funding positions. The DWP notes that around three quarters of schemes are estimated to be in surplus on a low dependency basis, with aggregate surplus assets of around £160 billion under this measure. At the same time, the response highlights that funding conditions remain sensitive to economic changes and that many schemes have adjusted their investment strategies as funding has improved, increasing allocations to bonds and pursuing greater levels of risk transfer through buy ins and buy-outs.¹¹⁵

¹¹³ Wells (PPI) (2025)

¹¹⁴ DWP (2025b)

¹¹⁵ DWP (2025a)

¹¹⁶ DWP (2025b)

¹¹⁷ TPR (2025c)

¹¹⁸ DWP (2025)

¹¹⁹ PPF (2025b)

¹²⁰ PPF (2025b)

The potential scale of surplus withdrawals is likely to be significantly smaller than aggregate surplus estimates

While these figures have featured prominently in policy discussions, interpreting their relevance for productive finance requires careful consideration. The estimate of around £160 billion represents an aggregate surplus calculated under a particular valuation framework.¹¹⁶ It does not represent a pool of capital that is automatically available for extraction. In practice, whether any surplus can be released will depend on scheme rules, trustee fiduciary duties, regulatory requirements and the strategic objectives of the scheme, including whether trustees are targeting run-on, consolidation or insurance buy-out.

Government analysis suggests that the volume of surplus actually released from schemes may be significantly smaller than headline surplus estimates imply. Research conducted by TPR indicates that 58% of DB schemes have a long-term objective of securing benefits through insurance buy-out, which limits the number of schemes likely to pursue long-term run-on strategies where surplus extraction may occur prior to risk transfer.¹¹⁷ However, surplus may still be returned to the employer following buy-out once all liabilities have been secured, subject to scheme rules and statutory requirements. The Impact Assessment accompanying the Pension Schemes Bill emphasises that behavioural responses to new DB policy frameworks are uncertain. For example, modelling of superfund consolidation assumes a take-up rate of around 25%, illustrating the degree of uncertainty around how many schemes engage with new options introduced through legislation.¹¹⁸

The distinction between the stock of surplus within DB schemes and the flow of surplus that might be released is therefore central to assessing the potential implications for productive finance. Even where aggregate surplus levels appear large, the macroeconomic impact will depend on the timing and scale of withdrawals, the decisions made by trustees and sponsors, and the uses to which any released funds are ultimately put.

For many DB schemes, retained surplus is likely to remain invested in liability-matching assets

Assessing the economic implications of surplus extraction requires understanding how DB assets would otherwise be invested. The comparison is not simply between surplus being withdrawn and surplus being invested productively within the UK economy. For many DB schemes, surplus is likely to remain invested in portfolios primarily designed to manage liability risks and support long-term funding objectives. As schemes have matured and funding positions have improved, investment strategies have increasingly prioritised liability-matching and funding stability. This approach reflects trustees’ fiduciary responsibilities and the need to protect member benefits, particularly for schemes approaching their chosen endgame strategy, such as buy-in or buy-out with an insurer. As a result, a large share of DB assets is invested in lower-risk instruments designed to hedge interest rate and inflation exposures rather than to pursue long-term growth.

DB asset allocations are heavily weighted towards bonds and liability-matching assets

Recent data illustrate the extent to which DB portfolios are positioned towards lower-risk assets. The PPF reports that schemes within the PPF-eligible universe allocated around 70.6% of assets to bonds in 2025, while equities accounted for around 15.1% of assets. Within this allocation, UK equities represented less than 5% of total equities held.¹¹⁹

The PPF also notes that the bond category includes not only physical bonds but also investments with bond-like economic characteristics, such as LDI strategies. These instruments are designed to hedge movements in interest rates and inflation and therefore play a central role in managing funding volatility.¹²⁰ The overall composition of DB portfolios therefore reflects a risk-management approach aligned with scheme maturity and endgame planning rather than a focus on allocating capital towards higher-risk growth assets.

The productive finance impact from DB surplus extraction is likely to depend on how surplus is used cont.

The productive finance implications depend on what surplus would otherwise fund

The structure of DB investment portfolios has implications for how the productive finance effects of surplus extraction should be interpreted. If surplus assets would otherwise remain within a low-risk, bond-heavy portfolio with significant exposure to gilts or gilt-like instruments, then releasing a portion of those funds could, in principle, redirect capital away from Government bond markets and towards other forms of investment. In some circumstances, employers receiving surplus funds could choose to deploy this capital in business investment or other economic activity.

However, another alternative may also involve continued de-risking rather than the maintenance of a stable investment pool. Improved funding positions have also coincided with increased de-risking activity. The DWP notes that many schemes have sought to lock in funding improvements through higher allocations to bonds and greater use of insurance transactions such as buy-ins and buy-outs.¹²¹ By transferring liabilities to an insurer, buy-out also removes future funding and covenant risk from the sponsoring employer, providing greater balance sheet certainty. Where surplus remains after securing liabilities, it may be returned to the employer for business investment or other uses, subject to scheme rules and statutory requirements.

DB schemes remain significant investors in Government and corporate debt markets

Another consideration in assessing the productive finance implications of surplus policy is the broader role DB schemes play within financial markets. In aggregate, DB schemes represent a significant source of demand for Government and corporate bonds, including UK gilts. Government policy has therefore emphasised the importance of maintaining both the resilience of DB schemes and the stability of the gilt market. The DWP has noted that reforms to the pensions system aim to support productive investment while continuing to prioritise a strong and diversified market for Government debt.¹²²

This reflects the fact that even when DB assets are invested primarily in bonds rather than equities or illiquid assets, they still contribute to the financing of Governments and companies through debt markets. As such, retained surplus continues to play a role in supporting economic activity, albeit through different financial channels.

For many mature schemes, retained surplus is likely to remain aligned with risk-reduction objectives

Taken together, these factors suggest that for many mature DB schemes retained surplus is likely to remain allocated to liability-matching assets and to support preparations for risk transfer, rather than being invested in domestic growth assets. This does not imply that retained surplus lacks economic value. DB assets continue to provide financing through bond markets and other credit instruments. As a result, the productive finance implications of surplus extraction should be assessed against this investment pattern rather than assuming that retained surplus would otherwise be invested in higher-risk growth assets.

Surplus extraction could support productive investment if sponsoring employers deploy funds within their businesses

Where trustees agree that surplus can be released safely, and where scheme rules and legislation permit, one potential channel through which surplus extraction could support productive finance is via investment by the sponsoring employer. In this scenario, funds returned to the employer could be used to finance business expansion, capital investment, research and development, or other projects aimed at increasing productivity. However, there is no requirement for employers to use funds in this way. Surplus may also be used to strengthen balance sheets, reduce debt, fund pension contributions, or be returned to shareholders.

Government policy discussions have recognised this potential channel. The DWP's consultation response identifies several possible uses for funds returned to employers, including business investment, productivity improvements, wage increases and additional contributions to DC pension provision.¹²³ The explanatory notes to the Pension Schemes Bill similarly state that allowing trustees to modify scheme rules to share surplus with sponsoring employers could support business investment and place trustees in a stronger position to negotiate additional benefits for members.¹²⁴

The extent to which surplus refunds translate into business investment depends on employer circumstances

Stakeholder evidence suggests that the productive-investment channel is plausible but highly dependent on the financial position and strategic priorities of individual employers. In particular, the extent to which surplus refunds lead to new investment is likely to vary depending on factors such as existing cash reserves, borrowing capacity, and the availability of viable investment opportunities.

For some employers, surplus release could facilitate projects that might otherwise be delayed or constrained by balance-sheet considerations. One consultant described a case where the potential release of surplus was being considered specifically to enable a major investment project:

I've got a client that's looking at some surplus release... that would enable them to undertake a project... over £100 million of investment, potentially.
— Senior pensions consultant

Where firms face financial constraints, returning surplus assets could increase available liquidity and reduce financing pressures, potentially enabling additional investment activity.

Pension funding requirements have previously influenced corporate investment behaviour

Evidence suggests that pension funding requirements can affect the investment decisions of sponsoring employers. In a Bank of England staff working paper analysing detailed scheme-level data from The Pensions Regulator, it was found that firms required to make deficit recovery contributions tend to reduce both dividend payments and investment expenditure relative to comparable firms, particularly when those firms face financial constraints.¹²⁵

Although this research focuses on deficit contributions rather than surplus refunds, it demonstrates that pension-related cashflows can influence corporate spending decisions. In this context, surplus extraction is likely to have the opposite effect to deficit contributions by releasing capital back to employers and increasing financial flexibility.

While surplus extraction may provide sponsors with additional flexibility to fund investment or other business priorities, this benefit must be balanced against the possibility that, if funding conditions deteriorate, employers may be required to resume contributions in the future. For many firms, DB schemes have historically introduced balance sheet volatility, and surplus extraction does not eliminate the potential for future funding demands where liabilities remain on the sponsor's balance sheet.

¹²¹ DWP (2025a)

¹²² DWP (2023b)

¹²³ DWP (2025a)

¹²⁴ UK Parliament (2025)

¹²⁵ Bunn, Mizen and Smietanka (2018)

The productive finance impact from DB surplus extraction is likely to depend on how surplus is used cont.

Reduced deficit contributions have already improved employer cashflows

Recent trends in corporate disclosures illustrate the scale of the improvement in employer cashflows resulting from stronger DB funding positions. Analysis by WTW indicates that deficit repair contributions have fallen significantly as schemes have moved into surplus. Deficit contributions declined to around £1.6 billion in 2024, compared with approximately £6.6 billion in 2022. For many sponsors that operate both DB and DC arrangements, DC contributions now exceed DB contributions.¹²⁶

This trend highlights that many employers have already experienced a reduction in pension-related cash demands as funding levels have improved. The additional impact of surplus refunds will therefore depend on whether they result in new investment activity, rather than simply adding to the cashflow benefits already created by lower deficit contributions.

Tax treatment affects the amount of surplus available for investment

The tax treatment of employer refunds also affects how much of any returned surplus can ultimately be used for investment. From 6 April 2024, the authorised surplus payments charge was reduced from 35% to 25%, lowering the tax cost associated with returning surplus to employers.¹²⁷

This change increases the proportion of surplus that employers are able to retain after tax. However, it also means that the full value of any surplus held within a scheme does not translate directly into investable corporate capital once funds are withdrawn. The net amount available for investment will therefore be lower than the headline surplus figure reported at scheme level. Stakeholders also highlighted that tax considerations shape how surplus extraction compares with other ways of supporting productive investment:

There are more tax efficient ways of achieving investment in UK productive finance within a pension wrapper and actually you need to think about what the purpose of the pension scheme is in this as well, whether you're a trustee, employer or Government. — Specialist pensions lawyer

These factors suggest that surplus extraction could support productive investment in some circumstances, particularly where employers face financing constraints or have investment opportunities requiring additional capital. However, the scale of this effect will depend on employer behaviour, corporate financial conditions and the broader economic environment.

The productive finance impact of surplus extraction is uncertain

While the possibility that surplus refunds could support employer investment is often highlighted in policy discussions, the extent to which this translates into productive finance is uncertain. The relationship between surplus extraction and economic investment depends on a range of behavioural and structural factors, including how employers deploy returned funds, whether investment would have occurred anyway, and the scale and timing of any surplus releases.

Surplus refunds may not translate directly into business investment

One potential limitation is that funds returned to employers may be used for purposes other than new capital investment. Surplus refunds could be directed towards dividends or debt reduction rather than additional spending on business expansion or productivity-enhancing projects.

Stakeholders highlighted this risk during interviews, noting that productive investment ultimately depends on the availability of viable projects within firms:

There has to be good investment ideas, otherwise any surplus will just go back to shareholders. — Pension risk transfer specialist

Even where funds are distributed to shareholders, some second-round investment effects may occur if shareholders reinvest capital elsewhere in the economy. However, these effects tend to be diffuse and more difficult to attribute directly to surplus extraction policy.

Surplus refunds may bring forward investment rather than increase it

A second source of uncertainty is whether surplus refunds lead to additional investment or simply change how existing investment is financed. Some employers that receive surplus refunds may have undertaken the same investment regardless, funding projects through retained profits or by raising capital in financial markets. In these circumstances, surplus extraction may bring forward the timing of investment or change the source of financing, rather than increasing the overall level of business investment.

Surplus extraction may not directly translate into productive finance outcomes

Finally, some stakeholders questioned whether surplus extraction represents a direct route to increasing productive investment. In one interview, concerns were raised that enabling employer refunds may not necessarily lead to higher levels of productive finance investment:

I'm not convinced that this is the most effective way for the UK Government to increase investment in productive finance. — Specialist pensions lawyer

This perspective highlights a broader tension within the policy debate. Measures that enable surplus sharing between schemes and sponsoring employers may deliver a range of outcomes, including employer refunds, member benefit improvements, and tax revenues. However, these outcomes do not automatically translate into increased productive investment.

These considerations suggest that while surplus extraction could support productive investment in some circumstances, the overall impact on productive finance is likely to depend on employer behaviour, trustee decisions and wider economic conditions.

Productive finance outcomes may also depend on whether DB schemes run-on or transfer risk

Although much of the debate around surplus extraction focuses on employer refunds, an alternative channel through which DB surpluses could influence productive finance operates through the pension scheme itself. Rather than returning surplus to sponsors, schemes could retain capital and continue investing over a longer period.

¹²⁶ WTW (2025)

¹²⁷ HMT (2023)

The productive finance impact from DB surplus extraction is likely to depend on how surplus is used cont.

The destination of DB assets shapes how they are invested and how they support productive finance

Run-on strategies could allow some schemes to retain capital for longer-term investment

In stakeholder discussions, the concept of run-on is frequently presented as the scenario in which DB schemes might maintain investment capacity for longer-horizon assets. Under a run-on strategy, schemes that remain well funded may continue operating rather than transferring liabilities to an insurer, potentially allowing them to retain assets and invest over a longer time horizon.

However, stakeholders also noted that in practice many schemes remain oriented towards buy-out or risk-transfer strategies. This can limit their ability to allocate capital to long-term or illiquid investments, as schemes preparing for buy-out often prioritise liquidity and low volatility to match insurer pricing and liability profiles. One stakeholder described this constraint as a lack of investment “capacity” for productive assets:

“ [Schemes] don't really have the capacity to invest in long-term productive assets. — Senior asset manager

This observation reflects the broader investment trends within the DB universe. As schemes mature and de-risk, asset allocations have increasingly shifted towards bonds and annuity-type exposures, with declining allocations to growth assets.¹²⁸

Governance and investment constraints may limit productive finance allocations within DB schemes

Even where run-on strategies are pursued, this does not necessarily guarantee higher allocations to productive assets. Stakeholders also noted that trustee fiduciary duties require investment decisions to focus on risk-adjusted returns rather than national investment priorities. As a result, even where schemes increase allocations to illiquid or long-term assets, those investments may be globally diversified rather than concentrated in UK productive finance opportunities.

Surplus flexibility could influence investment through different strategic pathways

These dynamics suggest that surplus flexibility could affect productive investment through more than one pathway. If surplus reforms encourage more schemes to run-on and adopt longer-duration investment strategies, some schemes, particularly larger ones with stronger governance capacity, may have greater scope to hold illiquid or long-term assets that could support productive finance.

Alternatively, if reforms increase incentives to extract value or accelerate risk transfer to insurers, assets may continue to move towards bond-heavy portfolios associated with buy-out preparation.

Productive finance outcomes cannot be inferred from surplus levels alone

These competing pathways illustrate that the productive finance implications of DB surpluses depend not only on the size of the surplus but also on how schemes choose to manage it. Whether surplus remains within schemes for longer-term investment or is used to facilitate risk transfer or employer refunds will shape how DB assets are allocated across the financial system.

As discussed previously in Chapter 3, DB schemes can pursue different endgame strategies, most commonly run-on or buy-out. These strategic choices influence not only the conditions under which surplus might be extracted, but also how pension assets are ultimately invested across the financial system.

For many schemes, the practical endgame remains insurance buy-out, with buy-ins often used as an interim step towards full risk transfer. Analysis indicates that more than half of DB schemes with a long-term objective are targeting buy-out with an insurance provider, while run-on strategies are pursued by a smaller proportion of schemes.¹²⁹

Consistent with these strategic objectives, activity in the UK bulk purchase annuity (BPA) market has remained strong. Buy-in transaction volumes reached close to £50 billion in both 2023 and 2024, reflecting improved scheme funding positions and continued demand from trustees seeking to de-risk liabilities through insurance solutions.¹³⁰ WTW similarly notes that strong pipeline activity is expected to continue, forecasting that total risk transferred to insurers and reinsurers could reach around £70 billion in 2026.¹³¹

These developments mean that a substantial share of DB assets is expected to transition from trust-based pension schemes to insurer balance sheets over time. This shift is important when considering the productive finance implications of DB surpluses, as the investment framework applied to those assets differs between the two institutional settings. When a scheme completes a buy-in or buy-out transaction, the associated assets and liabilities effectively move from a trustee-governed pension arrangement into a prudentially regulated insurance balance sheet, although this transition may occur gradually where schemes undertake phased buy-ins. This process reallocates assets within the financial system rather than removing them, with capital continuing to support economic activity through insurer balance sheets, albeit via different investment channels.

This growing role for insurance risk transfer means that the ultimate destination of DB assets is an increasingly important factor in understanding how surplus capital is invested and how it contributes to financing activity within the wider economy.

Insurer investment frameworks prioritise liability matching and predictable cashflows

DB pension schemes and insurers operate under different regulatory and investment frameworks. These differences influence how assets are invested when pension liabilities move from a scheme to an insurer through buy-in or buy-out transactions.

DB schemes invest under a funding and investment framework overseen by TPR. Within this framework, trustees set investment strategies designed to ensure pension promises can be paid while managing funding risks over time.

Insurers operate under a different regulatory regime. BPA providers are regulated under the Solvency UK prudential framework for insurance firms. This framework places a strong emphasis on ensuring that insurers hold assets that reliably generate the cashflows needed to pay annuity benefits.

¹²⁸ PPF (2025)
¹²⁹ TPR (2025c)
¹³⁰ LCP (2025)
¹³¹ WTW (2026)

The destination of DB assets shapes how they are invested and how they support productive finance cont.

Matching adjustment (MA) rules shape how insurers invest annuity assets

A central feature of the Solvency UK framework for insurers that provide bulk annuities is the MA. In simple terms, this rule recognises that insurers often hold long-term assets, such as bonds or infrastructure debt, specifically to pay the pensions promised to members. As these assets are intended to be held for many years and generate predictable income, the regulatory framework allows insurers to reflect part of the additional return they expect to earn from these assets when valuing their liabilities.

To apply the MA, insurers must demonstrate that the assets backing annuity liabilities produce cashflows that broadly match the timing and amount of expected pension payments. This means the assets held in MA portfolios must generate reliable, contractual income over long periods. The Prudential Regulation Authority (PRA), part of the Bank of England, requires insurers to ensure that these assets meet strict eligibility criteria and that their income streams align closely with the liabilities they are intended to fund.¹³²

In practice, this framework encourages insurers to invest heavily in assets with stable and predictable income streams. These commonly include corporate bonds and certain types of long-term private credit or infrastructure debt that provide contractual income over long horizons. Assets whose returns are uncertain or difficult to predict are generally less compatible with the matching adjustment eligibility criteria.¹³³

As a result, when DB scheme liabilities transfer to insurers through buy-in or buy-out transactions, the associated assets generally move into portfolios designed to provide predictable income streams aligned with future pension payments.

Insurers can still invest in long-term assets, but typically through debt-based structures

Although the Solvency UK framework encourages insurers to prioritise assets that generate predictable income streams, this does not mean that portfolios backing bulk annuities are limited to bonds. In practice, insurers can invest in a broader range of long-term assets, provided those investments generate stable contractual cashflows that align with the requirements of the MA framework.

These investments can include long-term private credit, infrastructure debt and other asset-based finance structures that generate contractual income over long horizons. Such assets can support productive activity in the economy while remaining compatible with insurers' regulatory requirements to match assets closely with annuity liabilities.

Regulatory reforms aim to broaden investment within matching adjustment portfolios

Recent regulatory reforms under Solvency UK have sought to enable insurers to invest in a wider range of long-term assets within MA portfolios. Changes to the framework have expanded the types of assets that may qualify for inclusion while strengthening expectations around governance, valuation and risk management.

The Matching Adjustment Investment Accelerator (MAIA) aims to speed up new investment

In practice, insurers wishing to include new types of assets in their matching adjustment portfolios must obtain regulatory approval to vary their MA permissions. This process ensures that assets meet eligibility requirements, including the ability to generate predictable cashflows that align with annuity liabilities. However, obtaining approval can take considerable time and in some cases may take up to twelve months.

The MAIA framework was introduced by the PRA in October 2025 to address this issue. Under MAIA, eligible insurers may include a limited allocation of assets that they assess as meeting matching adjustment eligibility criteria, even if those assets are not yet covered by their existing MA permissions. This allows insurers to recognise the matching adjustment benefit from these assets immediately, subject to exposure limits and supervisory safeguards.¹³⁴

Assets included through MAIA must subsequently undergo the full approval process through a formal variation of the insurer's MA permissions. The framework therefore changes the sequencing of the approval process, allowing insurers to deploy capital more quickly while maintaining regulatory oversight.

Industry estimates suggest that regulatory changes to the matching adjustment framework could support at least £100 billion of investment in UK productive assets over the coming decade.¹³⁵

Productive investment by insurers often takes the form of long-term credit

These developments suggest that when DB scheme assets move to insurers through buy-in or buy-out transactions, investment may shift away from equity-type growth exposure but not necessarily away from productive investment altogether. Instead, capital is more commonly allocated to long-duration credit and asset-based finance that can generate predictable cashflows consistent with matching adjustment eligibility.

Evidence suggests that insurers tend to hold a higher proportion of private and illiquid assets than DB schemes, including those running on, reflecting their ability to invest at scale. Consistent with this, PPI analysis indicates that around 37% of annuity assets are allocated to UK productive assets, compared to lower allocations observed in DB schemes (for example, around 21% in public sector DB schemes), suggesting differences in both asset composition and scale of investment.¹³⁶

DB schemes and insurers share similar objectives, but differ in how assets are invested to meet liabilities

Trust-based DB pension schemes and insurers operate under different regulatory frameworks. In principle, this gives DB schemes greater discretion over investment strategy than insurers, whose portfolios are shaped by prudential requirements under the Solvency UK framework.

Surplus assets above low dependency funding may allow greater investment flexibility

While some schemes have adopted insurer-like investment strategies, the regulatory framework governing DB schemes differs in one important respect. The funding and investment rules overseen by TPR focus primarily on ensuring that schemes hold sufficient assets in a low dependency investment strategy by the scheme's relevant date.

The low dependency objective is intended to ensure that the core pension promise can be met with limited reliance on the sponsoring employer. In practice, this requirement applies primarily to assets needed to meet the minimum funding level required for low dependency. Assets held above this level may, in principle, be invested with greater flexibility depending on trustee risk appetite and scheme circumstances.¹³⁷

¹³² Prudential Regulation Authority (PRA) (2025)

¹³³ PRA (2025)

¹³⁴ PRA (2025)

¹³⁵ Association of British Insurers (ABI) (2023)

¹³⁶ Wells (PPI) 2025

¹³⁷ TPR (2024)

The destination of DB assets shapes how they are invested and how they support productive finance cont.

Some schemes consider combining matching and growth portfolios

Stakeholder evidence suggests that some schemes may view surplus assets as a potential source of additional investment flexibility. In discussions with policymakers, officials noted that schemes may consider structuring portfolios with two distinct components: a matching portfolio designed to secure core pension liabilities, alongside a growth portfolio investing surplus assets with a greater focus on return generation.

As one official explained:

Schemes might think about a structure with a matching portfolio that secures the core pension promise and a growth portfolio investing surplus with a greater return focus.
— Senior policymaker

In practice, the feasibility of this approach varies considerably between schemes and depends on factors such as funding resilience, scheme maturity and trustee risk tolerance.

DB schemes typically use gilts and LDI, while insurers match liabilities through contractual cashflows under the Matching Adjustment (MA)

DB schemes and insurers share a common objective of ensuring that pension payments can be met as they fall due. However, their investment approaches remain materially different. As funding levels have improved and hedging strategies have become more widespread, many schemes have shifted towards portfolios dominated by liability-matching assets, typically using gilts and LDI strategies to manage interest rate and inflation risk.

By contrast, insurers match liabilities primarily through contractual cashflows, investing in corporate bonds and other credit assets within the MA. While both approaches aim to reduce risk and improve the certainty of benefit delivery, the underlying asset strategies differ, reflecting differences in regulation, balance sheet structure and investment constraints.

This shift towards liability-aware investment reflects the growing influence of endgame planning across the DB universe. As schemes move closer to buy-out, consolidation or long-term run-on objectives, investment decisions increasingly focus on funding stability and managing liability risks rather than prioritising return-seeking growth strategies. The scope for DB schemes to allocate capital to productive finance assets will therefore depend on the extent to which assets in excess of liabilities are available and the degree of flexibility retained within the chosen endgame strategy.

The productive finance implications depend on how assets are reallocated when liabilities move from schemes to insurers

The broader UK pensions landscape illustrates both the scale of pension investment and the relatively limited share currently allocated to productive finance. The Pensions Policy Institute estimates that total UK pension assets, including both DB and DC schemes, amounted to around £3.2 trillion in 2024. Within this, private sector DB schemes account for 38% of assets. However, only around 6% of total pension assets are invested in UK productive assets such as private equity, property and other alternatives. When UK corporate bonds and listed equities are included within the definition, the proportion rises to around 20% of pension assets.¹³⁸

Pension funds are also significant holders of Government debt. The Office for Budget Responsibility (OBR) notes that private pension funds held around one third of all UK gilts in 2023–24 (OBR, 2025). These figures illustrate that although pension funds hold substantial financial assets, only a relatively small share is currently allocated to investments typically associated with productive finance.

The productive finance implications of DB risk transfer therefore depend largely on how those assets are invested once liabilities are transferred. Transferring assets from schemes to insurers does not necessarily remove capital from the financial system. Instead, it may alter the types of financial instruments through which long-term savings are channelled into the economy.

Risk transfer may reduce equity-type exposures within the pensions system

Evidence suggests that portfolios backing annuity liabilities contain relatively limited equity exposure and are typically concentrated in assets such as corporate bonds, loans and mortgages. These investments are structured to generate predictable income streams that align with annuity payments.

Where DB schemes still hold return-seeking assets, such as listed equities or growth-oriented private market investments, a completed buy-out may reduce the share of these equity-like exposures held within the pensions system. In these circumstances, assets previously allocated to growth investments within pension scheme portfolios may be replaced by assets held within insurer matching portfolios.

Productive finance outcomes depend on the endgame pathway pursued by schemes

The productive finance implications of DB surpluses depend partly on the pathway through which assets move through the pensions system. Where schemes adopt a run-on approach and maintain investment allocations above the low dependency funding level, they may retain greater exposure to return-seeking assets such as listed equities or private market investments.

By contrast, where improved funding positions accelerate risk transfer to insurers through buy-in or buy-out transactions, assets are more likely to move into insurer matching portfolios. These portfolios typically prioritise investments that generate predictable cashflows, such as long-term credit instruments including corporate bonds, infrastructure debt and mortgages.

As a result, different endgame pathways may support economic activity through different types of financing. Risk transfer to insurers is therefore more likely to channel capital into long-term credit instruments such as infrastructure debt, mortgages and corporate lending.

¹³⁸ Wells (PPI) (2025)

Surplus reforms may widen strategic choices across the DB market rather than transform endgame outcomes

While the scale of DB surpluses has attracted considerable attention, the wider industry implications of surplus reform depend primarily on whether the reforms change scheme behaviour. Current evidence suggests that buy-out remains the dominant long-term objective for many schemes, although improved funding and regulatory developments have also made run-on strategies more viable for some schemes.

In this context, surplus reform is unlikely to produce a single uniform response across the DB landscape. Instead, it may broaden the range of strategies available to trustees and sponsors, influencing the timing of risk transfer, the management of funding headroom and the way value is shared between stakeholders.

Surplus access may influence the timing of risk transfer without necessarily changing endgame preferences

One potential implication of surplus reform is that it may influence the timing and sequencing of buy-in and buy-out transactions rather than displacing insurance endgames altogether. Strong scheme funding and extensive de-risking have already supported sustained activity in the BPA market. More than 300 bulk annuity transactions were completed in 2024, following record volumes of liabilities transferred in 2023, illustrating continued demand for insurance solutions among well-funded schemes.¹³⁹

At the same time, the Government's proposed surplus reforms aim to make it easier for trustees of well-funded schemes to release surplus where statutory conditions are satisfied.¹⁴⁰ For some schemes, particularly those with strong funding positions and robust sponsor covenants, the ability to access surplus may strengthen the case for continuing to run-on for a period before completing an insurance transaction.

Smaller and mid-sized schemes may continue to view insurance as the clearest route to securing benefits and removing long-term balance sheet uncertainty. For larger schemes with stronger governance capacity, surplus access may increase the attractiveness of delaying risk transfer in order to retain optionality. This could lead to greater variation across the DB market, with more schemes viewing run-on as a credible strategic option even if buy-out remains the most common endgame.

Surplus access may influence funding targets, although trustee risk appetite remains a key constraint

Surplus reform may also influence how some schemes approach funding targets and investment strategy. Under the revised DB funding regime, schemes are expected to reach a low dependency funding and investment position by their relevant date. The Government has indicated that the threshold for employer surplus payments will be aligned with this framework rather than requiring schemes to reach full buy-out funding.¹⁴¹

In principle, this creates an incentive for schemes to maintain funding comfortably above low dependency if doing so increases the scope to share value with sponsors or members. For some schemes, this may affect decisions around contribution levels, funding margins or investment strategy.

However, any behavioural response is likely to remain constrained by scheme-specific risk tolerance. The modelling presented earlier in this report indicates that increasing allocations to return-seeking assets can widen the range of possible funding outcomes, even where schemes begin from relatively strong funding positions. In practice, this means that the prospect of future surplus extraction may not necessarily encourage trustees to increase investment risk.

For many schemes, particularly those that are mature or cashflow negative, improved funding levels are likely to reinforce de-risking strategies rather than reverse them. Stakeholder discussions also emphasised that the reforms are intended to preserve trustee discretion rather than prescribe particular funding or investment approaches. As one official noted:

The policy is designed to be permissive. It's designed to maintain the power in the hands of the trustees, who are acting in the best interests of members, subject to discussion with the employer. There is no mandatory aspect of the policy.
— Senior policymaker

The implications for the Pension Protection Fund depend on how much risk remains within schemes

The potential implications for the PPF depend largely on whether surplus reform leads to greater risk remaining within trust-based schemes for longer periods. If more schemes choose to run-on while extracting surplus and retaining exposure to market, longevity and covenant risks, the PPF could in principle face greater long-term exposure than under a scenario where liabilities transfer more quickly to insurers.

Conversely, if surplus reform primarily affects how value is shared within schemes that remain well funded and resilient, the implications for the PPF may be limited. In this case, the reforms would change the distribution of surplus without materially increasing the risk of schemes entering the PPF.

Government consultations have highlighted that wider DB reform may interact with the PPF in several ways. For example, discussions around a potential public consolidator have raised questions about the possible use of PPF reserves and the implications for levy payers. Consultation materials note that drawing on PPF reserves to support a consolidator could weaken the PPF's financial position and increase the risk that levies may need to rise in future.¹⁴² These debates illustrate that changes affecting the duration and structure of DB liabilities can have system-level implications for protection mechanisms, even where individual schemes appear well funded at the point surplus is accessed.

Surplus transfers to DC provision raise questions about how value is shared between past and current employees

Surplus reform may also have implications for the relationship between legacy DB arrangements and current DC provision within sponsoring employers. Government policy documents indicate that funds returned from DB schemes could be used for a range of purposes, including supporting DC contributions or wider employer investment.¹⁴³

This issue has become more salient as employer pension spending has shifted towards DC provision. WTW highlights that DC contributions were around twice the level of DB contributions in 2024, while overall pension spending declined as deficit repair contributions reduced.¹⁴⁴

In this context, the use of DB surplus to support DC provision could direct additional value towards current employees, particularly where DB schemes are closed to accrual and primarily cover pensioners and deferred members. However, it could also lead to substitution, where surplus replaces existing employer contributions rather than increasing overall support. In such cases, members whose past service generated the DB surplus may receive limited direct benefit from how those funds are used.

Member research suggests that many DB members prioritise benefit security and member-focused uses of surplus over employer-only outcomes.¹⁴⁵ This indicates that decisions about surplus allocation may carry reputational as well as financial implications for sponsors and trustees, particularly where the interests of different groups of members and employees may be affected in different ways. These considerations also connect to wider questions of intergenerational fairness, particularly where decisions about surplus release today may affect the resilience of schemes and the risks borne by future members or sponsors.

¹³⁹ WTW (2025)

¹⁴⁰ DWP (2025a) and DWP (2025b)

¹⁴¹ DWP (2025a)

¹⁴² DWP (2025a)

¹⁴³ DWP (2025a)

¹⁴⁴ WTW (2025)

¹⁴⁵ Hymans Robertson (2026)

Surplus reforms may widen strategic choices across the DB market rather than transform endgame outcomes cont.

Intergenerational fairness depends on both how surplus is distributed and how scheme resilience is maintained

Questions of intergenerational fairness arise because decisions about surplus distribution can affect both current stakeholders and the long-term resilience of pension schemes. Stakeholders also highlighted that defining intergenerational fairness in pensions policy can be challenging in practice. As one participant noted:

“People often talk about intergenerational fairness, but it is actually very difficult to define what that means in practice. For example, you could focus on maximising financial returns, but others argue that if the world people retire into is not liveable because of climate change, then a larger pension pot may not matter. Decisions that benefit one generation today may therefore involve trade-offs with outcomes for future generations.

— Senior pensions industry expert

At one level, the issue concerns how surplus is allocated between different groups, including pensioners, deferred members, active employees participating in DC schemes and sponsoring employers. At another level, it relates to whether releasing surplus reduces the financial buffer available to protect members if funding conditions deteriorate in future.

Some stakeholders emphasised that distributing surplus too quickly could shift risks onto future members or contributors:

“If you pay out surplus too quickly, it's future contributions that need to go up. So, in general, I would say most of the downside risk relative to the promise made to members is borne by younger generations of members.

— Director of valuation and funding

This perspective reflects a broader issue within debates about surplus use. Where surplus is released during periods of strong funding, but scheme finances later weaken, the costs of restoring funding may fall on future contributors, sponsoring employers or younger members whose outcomes depend on the remaining strength of the scheme and covenant.

Assessing intergenerational fairness therefore involves considering not only who benefits from surplus at the point of distribution, but also whether schemes retain sufficient funding headroom to protect members over time. Decisions about surplus release may therefore have implications beyond the immediate allocation of value, shaping how risks and resources are shared between current and future participants in the pension system.

Industry effects are likely to emerge gradually through differing scheme responses

Overall, surplus reform is likely to widen the range of viable strategic responses across the DB market rather than produce a uniform shift in behaviour. Buy-out is expected to remain the prevalent endgame for many schemes, but improved funding and greater surplus flexibility may encourage some schemes to delay risk transfer, run-on for longer periods, or explore shared-value models.

These changes could influence transaction timing in the buy-out market, reinforce differences between large and small schemes, and increase attention on how surplus should be shared between sponsors, DB members and active DC savers. They may also increase the policy relevance of consolidation and the role of the PPF within a more differentiated DB landscape.

Evidence to date suggests that any industry-wide change is likely to occur gradually. Scheme rules, trustee judgement, covenant strength and endgame strategy will continue to shape decisions. The most significant effect of surplus reform may therefore be greater strategic diversity across the DB universe rather than a single, uniform shift in market behaviour.

Conclusions

The potential contribution of DB surplus extraction to productive finance depends less on the size of aggregate surpluses and more on how those surpluses are managed within the pensions system. While estimates of industry-wide surpluses have attracted policy attention, the volume of surplus that may realistically be released is likely to be smaller and conditional on trustee decisions, scheme rules and endgame strategies.

The productive finance implications of surplus extraction therefore depend on how assets move through the system over time. Mature DB schemes typically invest retained assets in liability-matching portfolios designed to support funding stability and de-risking. Where surplus is returned to employers, it may in some cases support business investment, although the extent to which this leads to additional productive activity remains uncertain. More broadly, outcomes will depend on whether schemes continue to run on and retain investment capacity or progress towards buy-out, which transfers assets into insurer portfolios with different investment characteristics.

Key messages

- **The productive finance impact of DB surpluses depends on how surpluses are used, not simply on the size of aggregate surplus estimates.**
- **The volume of surplus that may actually be released is likely to be smaller than headline figures suggest, as decisions depend on trustee discretion, scheme rules and endgame strategies.**
- **Many mature DB schemes invest primarily in liability-matching portfolios, meaning retained assets are typically held in bond-heavy strategies aligned with de-risking.**
- **Where surplus is returned to employers, it may support business investment, although the extent to which this results in additional productive activity is uncertain.**
- **The long-term destination of DB assets matters. Schemes that run on may retain capacity to invest in return-seeking or long-term assets, while schemes that move to buy-out transfer assets to insurer portfolios focused on credit and cashflow-matching investments.**
- **Surplus reform is likely to widen strategic pathways across the DB landscape, rather than produce a single uniform outcome for productive finance.**



PENSIONS POLICY INSTITUTE

PPI

Glossary

This glossary is designed for readers without an actuarial or pensions-industry background.

Accrual (future accrual): The build-up of new pension benefits for active members through ongoing service. When a scheme is “closed to future accrual”, existing active members may remain members, but they no longer build up additional DB benefits.

Actuarial valuation: A formal assessment (usually by an actuary) of a pension scheme’s financial position, comparing assets with the estimated value of liabilities using a specified set of assumptions.

Asset allocation: How a scheme’s assets are invested across categories such as equities, bonds, property, private credit, infrastructure, cash, and other assets.

Assets: The investments held by a pension scheme (for example, gilts, corporate bonds, equities, property, private market holdings) which are intended to generate returns and pay benefits.

Authorised surplus payment: A type of surplus refund that is permitted under tax rules when paid from a pension scheme (typically to a sponsoring employer) and subject to specified conditions and a tax charge.

Best estimate vs prudence: “Best estimate” assumptions aim to reflect the most likely future outcome; “prudent” assumptions build in margins for adverse experience. Greater prudence increases the measured value of liabilities and reduces measured surplus.

Bonds: Debt investments where the investor lends money to a Government or company in exchange for regular interest payments and the repayment of the original amount invested (the principal) at maturity. DB schemes often hold bonds to match predictable future benefit payments.

Bulk purchase annuity (BPA) market: The market in which pension schemes buy annuity contracts from insurers to insure some or all of their pension liabilities (through buy-ins and buy-outs).

Buy-in: A transaction where a pension scheme purchases an insurance policy covering certain pension payments. The insurer takes on the financial risk of those benefits, but the policy remains an asset of the scheme and members continue to receive their pensions from the scheme rather than directly from the insurer.

Buy-out: A transaction where a pension scheme transfers liabilities to an insurer and members’ benefits become obligations of the insurer (rather than the pension trust). Buy-out is often the final “endgame” for many private sector DB schemes.

Buy-out basis / full buy-out basis: A way of valuing liabilities based on the estimated cost of purchasing insurance to secure benefits in full (i.e., the buy-out premium). This basis typically produces higher liabilities than trustee funding measures, because it reflects insurer pricing and regulatory capital costs.

Buy-out premium: The price charged by an insurer to take on a pension scheme’s liabilities. It reflects expected benefit payments plus the insurer’s costs (including capital requirements, expenses, and profit margin).

Cashflow matching: An investment approach that seeks to align the timing and amount of investment income and principal repayments with the timing and amount of pension payments.

Closed to new members: A scheme that does not accept new entrants. Most private sector DB schemes are now closed to new members.

Closed to future accrual: A scheme that no longer allows members to build up additional DB benefits, even if they remain members.

Collateral: Assets, usually cash or Government bonds, provided as security when using derivatives to ensure obligations can be met if the contract moves against one party. If market conditions change sharply, schemes may need to provide additional collateral at short notice.

Consolidation: Combining pension schemes or transferring liabilities into a consolidator to achieve scale, reduce costs, and potentially improve governance and funding resilience.

Continuous Mortality Investigation (CMI) models: Widely used actuarial models (produced by the CMI) that help schemes project future mortality rates and longevity improvements, supporting valuation and risk management.

Credit spread: The extra yield paid by corporate bonds over Government bonds, reflecting credit (default) risk and other factors. Changes in credit spreads can affect scheme assets and (depending on valuation approach) funding measures.

De-risking strategies: Steps taken to reduce the risk of a scheme’s funding position deteriorating (for example, moving from equities to bonds, increasing hedging, buying in annuities, or reducing leverage).

Deferred member: An individual who has previously built up pension benefits in a pension scheme but is no longer actively contributing, usually because they have left the employer sponsoring the scheme.

Deficit: When the value of a scheme’s liabilities is greater than the value of its assets on a specified funding basis.

Deficit recovery contributions: Additional payments made by the sponsoring employer (above normal ongoing contributions) to eliminate a funding deficit over an agreed period.

Defined Benefit (DB): A pension arrangement where benefits are determined by a formula (often linked to salary and service) and the employer bears most of the funding and investment risk.

Defined Contribution (DC): A pension arrangement where contributions are paid into an individual pot, which is invested. Benefits depend on contributions paid in and investment returns, so the member bears most investment risk.

Derivatives: Financial contracts whose value depends on an underlying asset or rate (for example, interest rates or inflation). DB schemes often use derivatives to hedge risks rather than to seek growth.

Discount rate: The interest rate used to convert future expected benefit payments into a present value today. A higher discount rate means future payments are valued less in today’s terms, which reduces measured liabilities. A lower discount rate increases the present value of those payments and therefore increases measured liabilities.

Endgame strategy: A scheme’s long-term plan for delivering benefits and managing risk. Common endgames include buy-out, long-term run-on, and consolidation.

Equities: Shares in companies. Equities can provide higher expected returns but are more volatile than bonds.

Economies of scale: Cost and capability advantages that larger schemes often have (for example, access to specialist advice, professional governance, and sophisticated investment strategies).

Funding level / funding ratio: A measure of scheme funding expressed as assets divided by liabilities on a stated basis. A ratio above 100% indicates a surplus on that basis; below 100% indicates a deficit.

Funding headroom (buffer): The amount by which a scheme’s assets exceed a threshold (for example, low dependency). Greater headroom generally provides more resilience to adverse experience.

Funding threshold: A specified level of funding that must be met before an action can take place (for example, before surplus is extractable under reforms).

Funded reinsurance: An arrangement where an insurer pays a reinsurer to take on some of its risks (for example, longevity or investment risks), with assets typically provided to support the obligations. Funded reinsurance can affect insurer capacity and pricing.

Glossary cont.

Gilt / gilts: UK Government bonds. Gilts are used in DB portfolios for liability matching and hedging interest rate risk.

Gilt yields: The interest rates implied by gilt prices. Rising gilt yields generally reduce the present value of liabilities (improving funding on many measures), while falling yields generally increase liabilities.

GMP equalisation: A process to address differences in pension outcomes between men and women arising from the way guaranteed minimum pensions (GMPs) were originally calculated. Historical rules used different State Pension ages and calculation factors for men and women. Schemes are required to adjust benefits to ensure comparable outcomes, which may lead to benefit adjustments and can increase scheme liabilities and administrative costs.

Governance “guardrails”: Rules or frameworks (for example, pre-agreed triggers, funding tests, or decision processes) that constrain how surplus can be used and aim to protect member security over time.

Hedge / hedging: Actions to reduce the impact of risk factors (for example, interest rates or inflation) on a scheme’s funding position, typically using bonds and/or derivatives.

Hedging strategies: The overall plan for how a scheme measures, implements, and maintains hedges (including hedge ratios, collateral policy, permitted instruments, and governance for rebalancing).

Illiquid assets: Investments that cannot be quickly sold for cash without potentially significant price impact (for example, some private credit, infrastructure, or property). These can offer higher expected returns but carry liquidity risk.

Inflation risk: The risk that inflation is higher than expected, increasing pension payments (for schemes with inflation-linked benefits) and therefore increasing liabilities.

Integrated risk management (IRM): A framework that considers funding risk, investment risk, and covenant (employer) risk together, rather than separately.

Intergenerational fairness: In pensions, concerns about whether decisions benefit one group (for example, DB members) at the expense of another (for example, current employees accruing DC benefits), particularly where resources are shared or trade-offs exist.

Legacy arrangements: Older scheme structures, benefit designs, or investment holdings that reflect past decisions and can shape today’s risk profile and flexibility.

Liabilities: The estimated value today of all future pension payments promised by the scheme, calculated using assumptions about discount rates, inflation, longevity, and other factors.

Liability-driven investment (LDI): An investment strategy used by pension schemes to manage the risks associated with their future benefit payments (liabilities). It typically uses bonds and derivatives to hedge interest rate and inflation risks, helping the value of scheme assets move more closely in line with the value of liabilities and reducing volatility in funding levels.

LDI crisis / 2022 gilt market crisis: A period of severe volatility in UK Government bond (gilt) markets in September–October 2022, following the UK Government’s “mini-budget”. Gilt yields rose sharply, causing the value of long-dated bonds to fall. This triggered large collateral calls on leveraged liability-driven investment (LDI) strategies used by some pension schemes. Some schemes were required to sell assets quickly to raise liquidity, contributing to further market stress and prompting intervention by the Bank of England to stabilise the gilt market.

Leverage (in LDI): Using borrowing or derivatives to increase the size of hedging exposures relative to cash assets. Leverage can improve hedge efficiency but increases collateral and liquidity risk.

Low dependency: A funding and investment position where a scheme is expected to be able to pay benefits with limited reliance on additional support from the sponsoring employer, supported by a low-risk, resilient investment strategy.

Longevity assumptions / longevity improvements: Assumptions about how long members will live (and how quickly life expectancy may improve). Longer expected lifespans increase liabilities because pensions are paid for longer.

Longevity hedging: Risk management (often via insurance or reinsurance structures) that reduces the scheme’s exposure to members living longer than expected.

Market volatility: The degree to which asset prices, interest rates, or inflation expectations fluctuate. Higher volatility increases uncertainty about future funding outcomes.

Matching adjustment (MA): A mechanism in UK insurance regulation (Solvency UK, previously Solvency II) that can allow insurers to recognise part of the return from holding qualifying long-term assets against predictable liabilities, subject to strict rules.

Matching Adjustment Investment Accelerator (MAIA): A regulatory process intended to speed up insurers’ ability to include certain new investments within the matching adjustment framework, aiming to support faster deployment of capital into eligible long-term assets.

Maturity (scheme maturity): How far a scheme has progressed towards having most members in retirement and paying out benefits. Mature schemes are typically cashflow negative and often invest more conservatively.

Member security: The degree of confidence that members will receive full promised benefits. Security depends on funding, investment risk, sponsor covenant, governance, and (if transferred) insurer protections.

Mortality trends: Patterns in death rates over time. Changes in mortality trends can alter longevity assumptions and therefore liabilities.

Over-leveraged LDI arrangements: LDI strategies with high leverage relative to available liquid assets, increasing exposure to collateral calls and forced selling in stressed markets.

PPF’s 7800 Index: A regularly updated index produced by the Pension Protection Fund (PPF) that estimates aggregate DB funding positions across a large sample of schemes.

PPF universe: The set of DB schemes that are eligible for PPF protection and are included in PPF datasets and analysis (such as the Purple Book).

Prudential regulation: Regulation focused on the safety and financial resilience of institutions (such as insurers), including capital requirements designed to reduce the probability of failure.

Productive finance: In policy debate, investment in assets associated with long-term economic growth or productive capacity.

Proposed public consolidator: A proposed consolidation vehicle (sometimes discussed in connection with the PPF) intended to enable smaller DB schemes to consolidate in a public-sector-backed structure, potentially improving outcomes through scale.

Reinsurance capacity: The ability and willingness of the reinsurance market to take on risks from insurers (for example, longevity risk), which can influence pricing and the supply of bulk annuities.

Residual basis risk: The risk that a hedging strategy does not perfectly match movements in pension scheme liabilities. This can occur when the financial instruments used for hedging, such as gilts or swaps, do not move exactly in line with the discount rates or assumptions used to value scheme liabilities.

Revised DB funding code: Updated regulatory expectations for DB scheme funding and investment strategy (including concepts such as low dependency), setting out how schemes should plan for long-term funding and risk management.

Risk margin: In insurance regulation, an additional amount intended to allow for the cost of transferring insurance obligations to another insurer. It can influence insurer pricing and balance-sheet metrics.

Risk transfer: Actions that transfer pension risks (for example, longevity, investment, inflation) from the scheme to another entity, most commonly an insurer through buy-ins/buy-outs.

Glossary cont.

Run-on: A strategy where a DB scheme continues operating and paying pensions over the long term rather than aiming to buy-out with an insurer in the near term, potentially using surplus to support resilience.

Section 179: A statutory valuation basis used in the PPF framework (often used in PPF datasets) which provides a standardised way to assess scheme funding relative to PPF-level benefits.

Section 251 of the Pensions Act 2004: Legislation governing aspects of surplus refunds to employers, historically including constraints (such as requirements linked to dates and scheme rules) that limited the practical ability of some schemes to refund surplus.

Section 37 of the Pensions Act 1995: Legislation relevant to scheme amendments and trustee duties, discussed in the report in relation to clarifying trustee decision-making around surplus.

Solvency II: The EU-derived prudential regulatory framework for insurers, aimed at ensuring insurers hold sufficient capital for the risks they take. In the UK context, it has been replaced/modified by “Solvency UK”, but the term is still used (including for legacy rules and concepts).

Solvency UK: The UK prudential regime for insurers (building on and amending Solvency II), overseen by the UK Prudential Regulation Authority (PRA). It shapes how insurers price bulk annuities because pricing must cover liabilities plus required capital and risk management costs.

Sponsor covenant: The financial strength and willingness of the sponsoring employer to support the pension scheme (for example, through contributions if funding deteriorates). A stronger covenant can support greater risk-taking; a weaker covenant increases the importance of funding buffers and low-risk strategy.

Statutory override: A legal power that allows certain changes to be made to scheme rules even if the scheme’s current rules would not otherwise permit them (subject to conditions). In this context, it relates to enabling rules for surplus payments.

Stochastic modelling: Modelling that uses randomness to simulate many possible future economic and demographic paths, generating a distribution of outcomes (rather than a single forecast).

Superfunds: Defined Benefit (DB) pension consolidators that allow schemes to transfer their liabilities to a specialist vehicle supported by a capital buffer. Superfunds pool the assets and liabilities of multiple schemes, aiming to improve member security through scale, professional governance and additional capital backing. Following a transfer, the scheme no longer relies on the original sponsoring employer for support, subject to regulatory oversight and approval.

Technical provisions: A measure of scheme liabilities used in statutory funding valuations, reflecting the actuary’s assessment of the funding target under prudent assumptions agreed for the scheme’s funding plan.

Trustee fiduciary duties: Legal duties requiring trustees to act in beneficiaries’ interests, manage conflicts, and make decisions prudently and in line with the scheme’s rules and purpose.

Valuation basis: The set of rules and assumptions used to calculate liabilities (and therefore surplus/deficit). Different bases (technical provisions, Section 179, buy-out, low dependency) can produce different surplus figures for the same scheme.

Volatility (funding volatility): The extent to which a scheme’s funding position is expected to move up and down due to market movements or experience changes. Higher volatility increases the chance that a surplus today becomes a deficit later and is therefore central to debates around safe surplus extraction.

Yield movements: Changes in interest rates (often reflected in gilt yields). Even small yield movements can materially affect liabilities and funding positions, particularly for mature schemes with long-duration liabilities.

Methodology appendix

A mixed-methods approach

This report adopts a mixed-methods approach to examine DB surpluses from multiple analytical perspectives. Quantitative data analysis, actuarial modelling and qualitative stakeholder evidence are triangulated to develop a more comprehensive understanding of how surpluses arise, how stable they may be, and how they may influence scheme behaviour.

Quantitative funding evidence is used to establish the scale and distribution of surpluses across the DB landscape. The analysis examines how funding outcomes differ across commonly used valuation measures, including trustee funding measures, Section 179 and buy-out estimates. This highlights how different metrics can present materially different pictures of scheme funding and why headline surplus figures should be interpreted with caution.

Forward-looking analysis is provided through actuarial and stochastic modelling. The modelling explores how funding positions may evolve under different economic conditions and scheme characteristics, examining how starting funding levels, scheme maturity and investment strategy affect the probability and timing of funding deterioration over time.

Qualitative evidence is drawn from stakeholder consultations through individual and across the DB ecosystem. To support the analysis, the researcher conducted consultations with 18 stakeholders across 9 stakeholder groups. These included representatives of DB pension schemes, investment consultants, actuarial advisers, pension risk transfer specialists and insurers, asset managers, pension administrators, legal advisers and policymakers. Among the scheme representatives consulted were both sole trustees and professional trustees, covering schemes of different sizes, sectors and membership profiles.

This engagement was used to capture a range of perspectives on how surplus is interpreted in practice and how potential reforms may influence scheme strategy. Stakeholders provided insights on issues including the practical constraints on surplus extraction, the interaction between surplus and scheme endgame decisions, the role of trustee governance and sponsor covenant, and how reforms may affect the timing of risk transfer and investment strategy.

Taken together, these strands allow the analysis to triangulate evidence across observed funding data, forward-looking modelling and real-world governance and market considerations. DB surpluses cannot be understood through a single approach due to the complex interaction of funding measures, investment strategy, scheme maturity, sponsor covenant and regulatory frameworks across a diverse DB universe.

Modelling appendix

A1.1 Overview

This appendix describes the modelling used to assess how Defined Benefit pension scheme funding levels may evolve under different starting funding positions, scheme types and asset allocations.

The analysis considers a set of stylised scheme types and applies a consistent modelling framework to each of them. For each scheme type, a valuation is carried out at a point in time and the scheme is then projected forward annually over a 25-year period. At each future year, the projected scheme position is used as the basis for a fresh valuation, and the resulting liability and asset values are compared to derive the funding level.

The opening asset value is set as a specified proportion of the initial liability value, so that the starting funding level is fixed by construction. Thereafter, assets are projected forward on a cashflow basis using the experience in the relevant scenario. The analysis is carried out under 2,000 stochastic economic scenarios generated using the KCL economic scenario generator. The principal outputs are the probability of the funding level falling below selected thresholds during the projection period and the average time taken to breach those thresholds.

A1.2 Assumptions

The modelling is based on a common set of economic, benefit, demographic, membership and asset assumptions. These assumptions determine both the valuation at each date and the way the scheme evolves through the projection.

A1.2.1 Economic assumptions

Economic assumptions are in line with Office for Budget Responsibility (OBR) projections.

The discount rate used in the valuation is based on the OBR long-term gilt rate. Inflation and salary growth are also in line with OBR projections.

The OBR does not provide long term total equity returns, so equity returns are assumed to be in line with OBR Gross Domestic Product (GDP) growth, plus equity dividend yield.

Measure	Rate	Source
Dividend Yield	3.01%	FTSE AllShare ¹⁴⁶
Nominal Earnings Growth	3.37%	Office for budget Responsibility ¹⁴⁷
Nominal GDP Growth	3.84%	Office for Budget Responsibility
CPI Growth	2.07%	Office for Budget Responsibility
Gilt Rate	4.83%	Office for Budget Responsibility
Bank rate	4.15%	Office for Budget Responsibility

A1.2.2 Benefit assumptions

Future service accrual is modelled on a career average revalued earnings basis. The accrual rate is 1.5% of pensionable pay in each year.

Accrued benefits before retirement are assumed to increase in line with CPI plus 0.5% a year. Deferred benefits are revalued on the same basis, and pensions in payment are assumed to increase in line with CPI.

Retirement is assumed to take place at age 66.

A1.2.3 Demographic and membership assumptions

Mortality is based on the ONS 2022 mortality projections. This is likely to imply heavier mortality than would typically be used in an actuarial valuation, but is publicly available data and acceptable for the comparative purposes of the analysis.

Withdrawals from active to deferred status are assumed to occur at a rate of 5% a year.

For schemes open to new entrants, new entrants are assumed to join at younger ages at rates sufficient to maintain a stable population profile.

Age-related earnings profiles are based on analysis of the Labour Force Survey. These profiles are used both in constructing accrued pension amounts for the initial scheme structures and in projecting future accrual for active members.

A1.2.4 Asset and scenario assumptions

The baseline asset allocation is 70% gilts, 20% equities and 10% cash. Alternative investment strategies are considered by varying the equity allocation.

The stochastic economic scenarios are generated using the KCL economic scenario generator. Central return assumptions over the projection period are based on Office for Budget Responsibility projections, while the volatility and covariance structure within the generator is calibrated using historical data.

A1.3 Scheme profiles

The analysis compares five scheme types chosen to illustrate the effects of openness to new entrants, openness to accrual and scheme maturity.

A1.3.1 Scheme profile methodology

The five scheme types considered are:

- a scheme starting from a stable membership profile, open to new entrants and future accrual
- a scheme starting from a stable membership profile, closed to new entrants but open to future accrual
- a scheme starting from a stable membership profile, closed to future accrual
- a run-on scheme with a more mature membership profile that remains open to future accrual
- a run-on scheme with a more mature membership profile that is closed to future accrual

The schemes starting from a stable membership profile means an equilibrium distribution of members by age and membership type. This is obtained by applying the membership transition factors iteratively until a structure emerges whose age and membership-type profile does not change over time. Once that structure has been obtained, accrued pension amounts are assigned by allowing members to build up benefits under the assumed scheme design using the model earnings profiles.

The two run-on schemes are derived from the same underlying structure by closing the scheme to new entrants and projecting it forward for 10 years to produce a more mature starting profile. That profile is then used as the starting point for two variants, one that remains open to future accrual and one that is closed to future accrual.

Modelling appendix cont.

Stable Scheme membership distribution by age and sex (1,000 total members)

Ages	Active		Deferred		Pensioner		Spouse	
	Men	Women	Men	Women	Men	Women	Men	Women
20 - 24	20.0	20.0	1.3	1.3	0.0	0.0	0.0	0.0
25 - 29	27.5	27.5	7.9	7.9	0.0	0.0	0.0	0.1
30 - 34	21.2	21.3	14.1	14.1	0.0	0.0	0.1	0.2
35 - 39	16.3	16.4	18.8	18.9	0.0	0.0	0.1	0.3
40 - 44	12.6	12.7	22.3	22.5	0.0	0.0	0.2	0.5
45 - 49	9.6	9.7	25.0	25.2	0.0	0.0	0.4	0.7
50 - 54	7.4	7.5	26.9	27.2	0.0	0.0	0.7	1.1
55 - 59	5.6	5.7	28.0	28.5	0.0	0.0	1.1	1.7
60 - 64	4.2	4.3	28.3	29.2	0.0	0.0	1.7	2.6
65 - 69	0.7	0.7	5.6	5.9	24.6	25.9	2.4	3.8
70 - 74	0.0	0.0	0.0	0.0	28.7	31.0	3.5	5.6
75 - 79	0.0	0.0	0.0	0.0	25.5	28.7	5.1	7.9
80 - 84	0.0	0.0	0.0	0.0	20.9	25.1	7.2	10.8
85 - 89	0.0	0.0	0.0	0.0	14.7	19.4	9.4	13.3
90 - 94	0.0	0.0	0.0	0.0	7.7	11.8	10.0	13.0
95 - 99	0.0	0.0	0.0	0.0	2.3	4.4	6.8	7.8
100 +	0.0	0.0	0.0	0.0	0.1	0.3	0.7	0.7

Run-on scheme membership distribution by age and sex (1,000 total members)

Ages	Active		Deferred		Pensioner		Spouse	
	Men	Women	Men	Women	Men	Women	Men	Women
20 - 24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25 - 29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30 - 34	15.4	15.5	12.0	12.0	0.0	0.0	0.0	0.0
35 - 39	21.2	21.3	24.4	24.5	0.0	0.0	0.0	0.1
40 - 44	16.3	16.4	29.0	29.2	0.0	0.0	0.1	0.2
45 - 49	12.5	12.6	32.4	32.7	0.0	0.0	0.2	0.4
50 - 54	9.5	9.7	34.7	35.2	0.0	0.0	0.3	0.6
55 - 59	7.2	7.4	36.1	36.9	0.0	0.0	0.5	0.9
60 - 64	5.4	5.6	36.4	37.7	0.0	0.0	0.8	1.3
65 - 69	0.9	0.9	7.2	7.6	31.8	33.5	1.3	2.0
70 - 74	0.0	0.0	0.0	0.0	37.0	40.0	1.9	3.1
75 - 79	0.0	0.0	0.0	0.0	32.4	36.5	2.5	4.2
80 - 84	0.0	0.0	0.0	0.0	26.0	31.4	3.2	5.6
85 - 89	0.0	0.0	0.0	0.0	17.8	23.8	3.5	6.5
90 - 94	0.0	0.0	0.0	0.0	8.8	13.7	2.9	5.8
95 - 99	0.0	0.0	0.0	0.0	2.5	4.8	1.5	3.1
100 +	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.3

Modelling appendix cont.

A1.4 Valuation

At each valuation date, the model places a value on the benefits accrued by members at that point and, where relevant, calculates the contribution required for future service accrual.

A1.4.1 Valuation methodology

Liabilities are calculated as the discounted expected present value of the future pension payments arising from the pensions accrued by members at the valuation date. This means projecting the future benefit payments expected to arise from those accrued pensions, allowing for the timing of retirement, pension increases and mortality, and discounting those expected payments back to the valuation date on the valuation basis.

The liability calculation is carried out using the accrued pension attached to the membership at the valuation date. For active members, this reflects the pension built up to that point. For deferred members and pensioners, it reflects the rights already accrued and their expected future development under the valuation assumptions. The result is a single liability value representing the present value of the future payments expected to arise from the benefits accrued at that date.

For schemes open to accrual, future service contributions are calculated at each valuation date using the same valuation basis and a one year projected unit method. These contributions represent the cost of benefit accrual over the following year.

At the initial valuation date, assets are set as a specified proportion of liabilities, so that the starting funding level is fixed directly. At each later projected year, a fresh valuation is carried out using the accrued pensions then in force, and the resulting liability value is compared with projected assets to determine the funding level.

A1.5 Projection of the scheme

The projection model rolls the scheme forward one year at a time over the 25-year horizon. At each step it updates the membership profile, the accrued pensions associated with that profile, and the cashflows arising over the year before the next valuation is carried out. Projection uses the scenarios from the economic scenario generator to define the experience over a given year

A1.5.1 Methodology

The scheme is projected forward annually over a 25-year period. Each projected year represents a new scheme position, reflecting how the membership, accrued pensions, contributions, benefit payments and assets have changed over the year using the output of the economic scenario generator.

Membership is projected by age and membership status, with members classified as active, deferred or pensioner. In each year, the profile is updated using the model transition structure together with the relevant experience in the scenario file. This determines how the number of members at each age and in each membership category evolves over time.

Alongside the projection of member numbers, the accrued pension associated with each age and membership group is also updated. The pension attached to any given members of a particular age and membership type in one year is derived from the corresponding position one year earlier, allowing for ageing, revaluation, pension increases, additional accrual where relevant, and movement between membership types. The accrued pension held at each future date therefore reflects the experience up to that point arising from the particular experience scenario.

For schemes open to accrual, active members build up additional pension during the year and future service contributions are received accordingly. For schemes closed to accrual, no further benefit build-up takes place and accrued pensions evolve through revaluation, pension increases, retirement and mortality.

At each future date, once the projected accrued pensions have been determined, a fresh valuation is carried out. The projection therefore determines the scheme position at each future date, while the valuation methodology is used to measure the liabilities associated with that position.

A1.6 Assets

The asset side of the model is anchored by the chosen starting funding level and then projected forward using annual cashflows and scenario-based investment returns.

A1.6.1 Methodology

The opening asset value is set as a specified proportion of liabilities, so that the starting funding level is fixed directly.

After the initial year, assets are projected forward on a cashflow basis. In each future year, the asset value is updated to reflect contributions, benefit payments and investment returns under the relevant scenario.

Benefit payments are determined from the projected membership and the accrued pensions associated with that membership. Contributions arise only in schemes open to accrual and are equal to the future service cost calculated on the valuation basis.

The projected asset value at each future date is then compared with the liability value at that date to derive the funding level.

A1.7 Model outputs

For each combination of scheme type, starting funding level and asset allocation, the model produces a distribution of annual funding levels over the 25-year projection period.

The results are summarised using two measures. The first is the probability that the funding level falls below a specified threshold at any point during the projection period. The second is the average time taken to breach that threshold, considering only those scenarios in which a breach occurs.

The funding thresholds considered in the analysis are 100%, 90%, 80% and 70%.

A1.8 Limitations

The model is intended to illustrate relative patterns in funding risk rather than to produce scheme-specific forecasts. In reality pension schemes would be required to take some remedial action if they were facing a shortfall in their assets compared to their liabilities. The schemes modelled are stylised and the assumptions are chosen to provide a consistent basis for comparison across different starting positions, scheme types and investment strategies. The results should therefore be interpreted as illustrative of broad relationships rather than as predictions for any individual pension scheme.

In particular, smaller schemes and larger schemes tend to have different investment opportunities and approaches, which could affect their ability to hedge risks and the level or risk of falling below a threshold.

The modelling does not directly take into account expenses. Expenses do not scale with size, smaller schemes are likely to have higher relative expenses compared larger schemes, increasing the financial burden of a smaller scheme, and therefore increasing the relative risk of falling below a threshold.

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