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Work and Pensions Committee

Defined benefit pensions with Liability Driven Investments

Seventh Report of Session 2022–23

Report, together with formal minutes relating to the report

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Work and Pensions Committee

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Contacts

All correspondence should be addressed to the Clerk of the Work and Pensions Committee, House of Commons, London SW1A 0AA. The telephone number for general enquiries is 020 7219 8976; the Committee's email address is workpencom@parliament.uk

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Contents

Summary

Liability Driven Investment (LDI) has been in use for about twenty years as a tool which defined benefit (DB) pension schemes use for managing volatility in their funding levels. It involves investing in assets whose value moves in the same direction as that of their liabilities. The intention is to reduce volatility in the scheme's funding level, giving employers greater predictability about the level of their contributions.

For pension schemes in deficit (where the value of assets is less than the liabilities), using leveraged LDI enables them to do this in a more capital efficient way, allowing them also to invest in return seeking assets to reduce their deficits over time. However, leveraged LDI funds need to post collateral as security to the bank counterparties. Increases in gilt yields can give rise to the demand for additional collateral to be posted.

LDI played a role in helping schemes to improve their funding level when interest rates were low and scheme deficits high. However, we are concerned that this was funded by leverage (borrowing), the inherent risks of which did not get sufficient attention until a crisis hit. This happened in September 2022, due to the economic turbulence which followed the 'mini-Budget', when sharp rises in gilt yields, unprecedented in their speed and scale, resulted in LDI funds being required to post additional collateral at short notice. To meet collateral calls, and reduce leverage, LDI funds had to rebalance by selling liquid assets or asking their DB pension scheme investors to provide more collateral. When this rebalancing could not be achieved quickly enough, LDI funds were forced to sell gilts into an illiquid market. This risked reinforcing the downward pressure on gilt prices, creating a downward spiral which the Bank of England had to intervene to stop.

The Bank's intervention allowed LDI funds to rebalance and rebuild their resilience to manage future moves in the market. The Pensions Regulator (TPR) said in April 2023 that most pension schemes had improved funding levels through a combination of investment performance and a significant rise in gilt yields (which has the effect of reducing the present value of liabilities). However, for a minority, funding levels fell due to the market disruption and such schemes may face challenges in restoring their position, for example, because of the costs of the measures to improve resilience in LDI funds, or because of the way in which their asset allocation has been disrupted. External analysis raises questions as to how confident we can be about these improvements in funding levels. As part of ensuring the right lessons are learned from the LDI episode, we think that the Department for Work and Pensions (DWP) and TPR should look at how many pension schemes lost out, by how much and what role LDI strategies played in this.

DB scheme regulation

There are two lines of defence to enable pension schemes to manage risk: firstly, the trustees, who are responsible for investment decisions; secondly, The Pensions Regulator (TPR) with its statutory objective to improve the way workplace pension schemes are run. The events of September 2022 revealed significant weaknesses in both lines of defence.

TPR has had concerns about governance standards, particularly in small and medium sized schemes, for some years. In 2016, for example, it noted that challenges included investment decisions and engaging with advisers. Following the events of September, TPR's then Chief Executive, Charles Counsell, told us it was a "fair question…about the degree to which smaller schemes really understood the implications of the investments they were taking." He also acknowledged that the information currently being collected on LDI was "not sufficiently detailed" for it to assess whether its guidance is being followed across pension schemes. Given this, we think TPR should have focused earlier on the risks of encouraging schemes to use such complex financial products.

The Financial Policy Committee (FPC) recommended that TPR: i) specify the minimum levels of resilience for LDI arrangements in which pension schemes invest; and ii) work with other regulators, to ensure that LDI funds maintain the resilience that has been built up. We recommend that, DWP and TPR explain how they intend to deliver on these recommendations. The challenge to doing so is that TPR can issue guidance but still has no means to check the extent to which it is being followed across DB schemes.

A consistent theme of this Report is that more systematic, regular and comprehensive collection of data on LDI is needed. We recommend that TPR should consider requiring trustees to report regularly on their use of LDI and that it should develop a strategy for engaging more closely with schemes based on the results. More broadly, we welcome TPR's commitment to become a more digitally enabled and data-led organisation. The events of September 2022 demonstrate the importance of driving this forward. We recommend that DWP and TPR report back to us on a timeline and plans to resource it.

Another consistent theme is the need to improve governance throughout the investment chain. Asked about plans to improve governance standards in pension schemes, TPR said that scheme consolidation will bring economies of scale but that consolidation needed to be into a safe vehicle, which would need a statutory framework. DWP consulted on DB consolidation in 2018. As a first step to improving governance, we recommend that it publishes its response to this consultation by the end of October 2023. It should then work with TPR as a priority to improve the regulation of trustees and standards of governance, as it has said it intends to do. Given the time it will take to consult on, legislate for, and implement measures to improve governance, DWP should consider whether the use of LDI could be restricted, for example, based on a test related to a trustee boards' ability to understand and manage the risks involved.

The ability of pension scheme trustees to ensure they get good advice was cited as an area of weakness. We heard, including from the Financial Conduct Authority (FCA), that in some cases investment consultants were giving standardised advice, rather than thinking through what is best for the pension fund. We recommend that the Government bring forward plans for investment consultants to be brought within the FCA's regulatory perimeter.

Managing systemic risk

We question whether TPR had understood the 'doom loop' risks inherent in LDI products. In 2018, the Bank of England assessed the risks associated with leverage, noting that it could expose non-banks (including pension schemes) to "sudden demands for high-quality collateral, which could result in forced sales of potentially illiquid assets." It identified the need "for more comprehensive and consistent monitoring by authorities…to keep this under review." Following this, TPR conducted a survey in 2019.

The work done at this time was a missed opportunity in two respects. Firstly, it focused on large schemes and the conclusion was that they had arrangements in place to manage the risk. In fact, in September 2022, it was the pooled LDI funds, in which small pension schemes were invested, which came under particular pressure. The second missed opportunity was that no system for collecting data on LDI from pension schemes was put in place after the survey. As a result, the use of leverage grew in a way that was not visible to the regulators until the crisis hit in September. Given the concentration of DB schemes' investments in the gilts market, more should have been done to follow up on the problem identified in 2018. The reason this did not happen appears to be gaps in the arrangements for managing systemic risk.

In March 2023, the Bank of England's Financial Policy Committee (FPC) recommended that TPR should have the remit to take account of financial stability considerations on a continuing basis. We tend to agree, although it depends what it means. One option would be for TPR to be a key source of information on DB scheme investments, able to identify potential risks proactively in the workplace pensions sector, but working with other regulators to analyse the implications.

The LDI episode has also raised wider questions about how pension scheme funding works and whether the way liabilities are calculated is always appropriate. DWP and TPR are proposing to introduce a new funding regime in April 2024. We have two concerns about this. Firstly, we are not convinced there is sufficient flexibility to enable open pension schemes to thrive. This is an issue we will return to in our wider inquiry into defined benefit pension schemes. Secondly, there is a risk of increased 'herding' in pension scheme investments, with even more pension schemes being encouraged to act in the same way. In light of the FPC's recommendation for TPR to take account of financial stability, DWP and TPR should halt their existing plans for a new funding regime, at least until they have produced a full impact assessment for the proposals, including the impact on financial stability and on open DB schemes.

1 Introduction

1. The economic uncertainty experienced in the UK in September 2022 brought to the fore risks associated with the use of Liability Driven Investment (LDI) strategies by pension schemes. LDI strategies aim to reduce volatility in scheme funding levels by investing in assets whose value moves in the same direction as that of the scheme's liabilities. Leverage allows schemes to do this in a capital efficient way, freeing up capital that they can invest in ways more likely to generate a higher return. However, leveraged LDI funds need to post collateral as security to the bank counterparties. Increases in gilt yields can give rise to the demand for additional collateral to be posted.

2. Sharp rises in gilt yields in September 2022, resulted in LDI funds having to rebalance by selling liquid assets or asking their DB pension scheme investors to provide more collateral. Where this could not be achieved quickly enough, LDI funds were forced to sell gilts into an illiquid market. This risked reinforcing the downward pressure in gilt prices. The Bank of England explained that "this downward spiral risked spilling over to broader market dysfunction, leading to an unwarranted tightening of financing conditions for businesses and households." The intervention stabilised the gilts market, giving LDI funds time to rebuild their resilience.[1]

3. As a result of the events in September, we launched our inquiry into this matter on 24 October 2022, calling for evidence on:

- The impact of the events of September on DB schemes and their members;
- Whether The Pensions Regulator has taken the right approach to regulating and monitoring the use of LDI;
- Whether DB schemes had adequate governance arrangements in place;
- Whether LDI is still essentially 'fit for purpose'; and
- Whether the experience suggested other policy or governance changes were needed, for example to DB funding rules.

4. Since we announced our inquiry, much work has been done by regulators and policymakers to understand the causes of the problem and steps have been taken to build resilience for the future. We launched a second call for evidence in February 2023, asking for views on the recommendations in the Bank of England's Financial Stability Report published on 13 December 2022 and the further consultation on The Pensions Regulator's (TPR's) draft funding code launched on 16 December 2022. After we held our last oral evidence session as part of this inquiry in March 2023, the Financial Policy Committee made further recommendations to increase the resilience of LDI funds; the Financial Conduct Authority (FCA) and The Pensions Regulator (TPR) published further guidance; and TPR published its annual funding statement.

5. The episode brought a number of significant issues into sharp focus. It raised questions about the adequacy of the regulatory framework when it comes to managing systemic risks, as well as about the implications of encouraging DB schemes, to invest using complex financial instruments, given the many small and medium sized schemes,

1 Bank staff paper: LDI minimum resilience – recommendation and explainer', March 2023

some of which faced challenges in understanding and managing the risks. The large number of such schemes, and the lack of a system for collecting data, meant The Pensions Regulator did not have direct sight of what was happening.

6. This Report concentrates on the September 2022 episode affecting pension funds invested in leveraged LDI. Wider issues affecting DB schemes will be considered in a further inquiry on DB, which we launched earlier this year.

7. We have published more than 75 written evidence submissions and held five oral evidence sessions, hearing from investors, fund managers and professional bodies, as well as The Pensions Regulator, The Financial Conduct Authority, the Bank of England, the Economic Secretary to the Treasury, Andrew Griffith MP, and the Minister for Pensions, Laura Trott MBE MP. We are grateful to all of those who contributed to our inquiry.

8. In this Report we look at:

- Chapter 2: How and why leveraged LDI developed and the role played by The Pensions Regulator (TPR);
- Chapter 3: What happened during the LDI episode and what steps were taken and recommendations made to improve resilience;
- Chapter 4: The role of LDI in the past and what role it should play in the future in managing scheme funding;
- Chapter 5: How well-placed trustees were to play their role as the first line of defence and proposals to improve standards of governance; and
- Chapter 6: What needs to be done to regulate systemic risk better in future.

We have annexed a glossary with the key technical terms we use throughout this Report.

2 How and why LDI developed

9. This Chapter starts by looking at the Defined Benefit (DB) pensions landscape in which LDI emerged. It goes on to look at how LDI works, why DB schemes use it and how this has developed over the last twenty years.

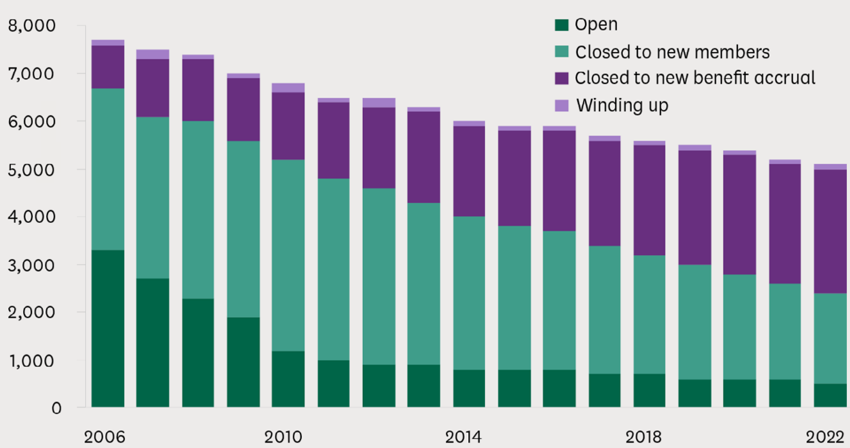
Background: the DB landscape

10. DB pension schemes promise to pay pension benefits based on salary and length of service. They have been in decline in the private sector for the last 30 years. Analysing the reasons for this in 2005, the Pensions Commission pointed to the growth in costs as legislation was passed to remove inequality (equal access for part-time workers, rights for early leavers and defined survivors' benefits) and reduce discretion (the introduction of limited indexation requirements). The resulting decline in provision had started slowly, due to delayed appreciation of life expectancy increases and exceptional equity returns in the 1980s and 1990s. However, "when the fool's paradise came to an end, companies adjusted rapidly, closing DB schemes to new members." The Pensions Commission concluded that it was "difficult to see private sector DB provision, certainly final salary in form, playing more than a minimal role in the future UK pensions system."[2]

11. The decline has continued. As shown in Chart 1, the number of DB schemes fell from 7,751 in 2006, down to 5,131 in 2022, a 34% reduction. The proportion of schemes that are closed to new benefit accrual increased from around 12% in 2006 to 51% in 2022. This is the first time the majority of DB schemes provide no accrual of benefits.

Distribution of defined benefit schemes by scheme status

United Kingdom



Source: Chart produced by House of Commons Library from PPF 7800 index.

2 A New Pension Settlement for the Twenty-First Century. The Second Report of the Pensions Commission, December 2005, p38

12. Nonetheless, DB schemes remain a significant part of the pensions landscape, with 9.6 million members relying on them for a substantial proportion of their (expected) retirement income. They are significant in size, with around £1.4 trillion assets under management.[3] This compares to £213 billion for defined contribution (DC) schemes in the third quarter of 2022.[4]

Background: the objectives and implementation of LDI

Objectives

13. The aim of LDI is to provide stability in a pension scheme's funding level by investing in assets, whose value moves in the same direction as the scheme's liabilities in response to interest rate changes. This has the advantage of making the amounts employers are required to contribute more predictable.[5] Supporters of LDI argue that the use of leverage has allowed schemes to do this in a way that is capital efficient, freeing up capital that they can invest in ways more likely to generate a higher return. This has helped schemes reduce their deficits over time.[6]

How pension schemes calculate their liabilities

14. The motivation for LDI has its roots in the way DB schemes calculate the present value of liabilities (the future payments they will have to make to meet the pension promises they have made to members) for accounting purposes and in the regular valuations they are required to conduct.

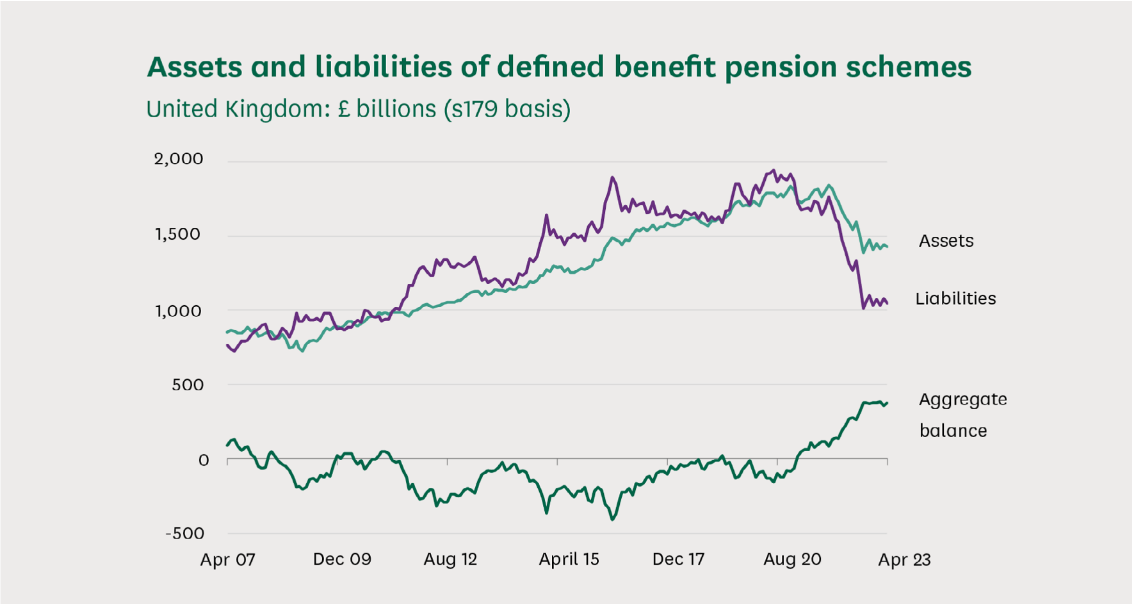
15. Accounting standards FRS 17 and IAS 19, as introduced in the early 2000s, required pension scheme deficits to be reported on company balance sheets. They also required liabilities to be valued as a single figure using a discount rate based on the yield of bonds with at least an AA credit rating. A discount rate is a figure used to calculate the present-day costs of a future stream of payments. The future stream of payments is discounted by a rate reflecting the estimated cost of meeting them. For example, to pay £100 in ten years' time, if you are confident that you can earn 4% interest each year, you need to invest around £67 now to do this.[7]

16. The use of discount rates to calculate a present value of liabilities is also a feature of the valuations DB schemes are required to conduct at least every three years to check whether they are holding sufficient assets to meet their pension promises. If not, the trustees must prepare a 'recovery plan' (often including a schedule of contributions from the employer to reduce the deficit in the fund) and submit this to The Pensions Regulator (TPR).[8] As part of the valuation, the trustees are required to calculate the present value of

3 PPF 7800 index, June 2023 update
4 Funded occupational pension schemes in the UK, ONS, private sector DC, line 43
5 The Investment Association (LDI0028)
6 The Pensions Regulator (LDI0047)
7 For more detail on accounting standards and how they have changed over time, see An unreal number, Pensions Institute, January 2008
8 Pensions Act 2004, Part 3

the scheme's liabilities, using a discount rate that is chosen 'prudently,' taking account of the expected investment returns on the scheme's assets and/or the yield on government or other high-quality bonds.[9]

17. As most use a gilts-based discount rate, the value of DB liabilities is very sensitive to changes in the value of gilts.[10] When long-term interest rates fall—and gilt prices rise—the present value of DB pension schemes' liabilities also rises. Conversely, when long-term interest rates rise—and gilt prices fall—the present value of DB pension schemes' liabilities falls.[11] Chart 2 shows the level of assets, liabilities and aggregate funding for private sector DB schemes in the UK, based on data from the Pension Protection Fund's 7800 index:



Source: Chart produced by House of Commons Library from PPF 7800 index.

Between March 2006 (when the index began) and February 2021, the majority of schemes were in deficit. However, since March 2021 the majority of schemes have been in surplus each month. In April 2023, 87% of schemes were in surplus.

Matching assets and liabilities

18. Pension schemes are required to invest in a way that is appropriate to the nature of the payments they expect to make. To help with this, many hold assets that match their liabilities, so that changes which affect the value of one, affect the other in the same way. LDI strategies involve investing in gilts, or other financial instruments, whose value moves in the same direction as the present value of the scheme's liabilities.

9 Pensions Act 2004, s222; Occupational Pension Schemes (Scheme Funding) Regulations 2005 (SI 2005/3377), reg 5
10 Toby Nangle (Independent Economic and Markets Analyst) (LDI0043)
11 Bank of England, Financial Stability Report, December 2022, section 5.1

Box 1: Gilt yields

A gilt is a bond issued by the UK Government. Many pension schemes invest in long-dated gilts, with a term of, say, 30 years to maturity.

Gilt holders receive a fixed rate of interest over the life of the gilt (referred to as the 'coupon'), before receiving full repayment of their principal at maturity.

Gilts are tradeable instruments, whose prices change in response to future interest rate expectations and supply and demand.

The yield on a gilt is the annualised return an investor would make if it bought the bond at its current market price and held it until maturity. If the price of a gilt falls, its yield rises (because a buyer has to pay less to receive the same future income from the gilt and so gets a higher rate of return), and vice versa.

19. Some pension schemes manage their own LDI arrangements (sometimes referred to as 'bespoke'). However, many invest in funds, managed by an external asset manager (an LDI fund). These can be either pooled or segregated arrangements. In pooled funds, multiple (often smaller) pension schemes invest together and have limited liability to the fund in the event of losses. In segregated arrangements, the assets of a single pension scheme are invested separately, allowing the arrangement to be more tailored to meet the needs of that scheme.[12]

How leverage in LDI works

20. The LDI model does not necessarily involve leverage: it is a way of managing assets and liabilities. However, the way it is used has become more leveraged over time.[13] The reason is that between March 2006 and February 2021, most schemes were in deficit.[14] If a scheme was fully funded (i.e. its assets equalled the present value of its liabilities) it could simply invest fully in gilts to match the interest rate sensitivity of its liabilities. However, this is expensive.[15] As an example, the Bank of England pension fund, which is "conservatively managed, with limited leverage and inflation and interest rate risks substantially hedged"[16] has an employer contribution rate of 52.2%.[17]

21. A scheme in deficit can use leveraged LDI to do this in a more capital efficient way, freeing up capital to invest in return-seeking assets. The following, over-simplified example, is an attempt to illustrate this: a scheme with liabilities of £100 and £90 in assets, could invest £90 in gilts. However, this would leave the remaining £10 in liabilities exposed to movements in interest rates and the fixed (and relatively low) rate of return on gilts would allow little progress in closing its deficit. By investing £50 in an LDI fund with two times leverage, the pension scheme could 'hedge' the interest rate risk of the full amount of its liabilities and invest its remaining £40 in 'growth' assets to close its deficit over time.[18]

12 Risks from leverage: how did a small corner of the pensions industry threaten financial stability? - speech by Sarah Breeden, 7 November 2022

13 Oral evidence to Treasury Select Committee, 16 January 2023, Q279 [Andrew Bailey]; Scheme management detailed guidance/funding and investment detailed guidance/DB investment/matching DB assets, TPR (March 2017, updated September 2019)

14 See chart two.

15 Q32

16 Letter from David Roberts, Chair of the Court of the Bank of England, relating to Defined benefit pensions with Liability Driven Investments

17 Bank of England Pension Fund Report and Financial Statement, July 2022, p56

18 For a more detailed example, see Barnett Waddingham LLP (LDI0036), p4–5

How LDI funds use leverage

22. LDI funds can generate leverage using financial instruments such as derivatives or gilt repurchase and sale agreements (gilt repo):

- A derivative is an instrument, or contract, whose value is derived from the price of another instrument. In this case, the two parties to the contract (a pension fund and a bank) agree to exchange payments based on changes in the value of government gilts. If the value of gilts rises, the pension scheme receives a payment from the bank; if it falls, the pension scheme must make a payment to the bank.

- In gilt repo, the pension scheme agrees to sell gilts to a bank and buy them back at a specified later date, for a specified price. As the price is fixed at the start, the pension scheme remains exposed to changes in the gilts' value.

23. When derivative contracts are created, they are typically worth the same amount to both parties in the transaction. Over time, as there are changes in the underlying variable to which the contract is linked the contract becomes more valuable to one party. To protect against 'counterparty risk', there is a "regular exchange of collateral." Typically, this is posted by whichever party experiences a fall in the value of the contract. Standard market practice is to minimise risk by posting cash and/or gilts as collateral.[19] LDI strategies therefore require the fund manager to operate a collateral pool, from which cash is drawn in order to meet collateral calls from the bank counterparty. If this pool is reduced, the LDI fund will seek to rebalance it by calling on the pension scheme to provide additional capital. The Investment Association explained that arrangements should be in place to enable this:

> In raising cash for the collateral pool, DB schemes work with investment consultants, and often, their LDI managers to create a pre-defined 'waterfall' of assets that can be sold, with the most liquid assets being sold first. Plans are made for collateral to be raised in line with certain triggers, e.g., changes in the value of gilt yields and inflation that affect the value of schemes' derivative and repo exposures or predefined levels of leverage or cash amounts in the underlying collateral pools. The idea is that schemes have a pre-defined plan of where to raise cash from in the event of anticipated market moves that will require more collateral. It is important to note that such recapitalisation takes some time – typically more than a week to fully complete.[20]

24. The need to replenish collateral buffers means that leveraged LDI arrangements involve 'liquidity risk'. Liquidity refers to the "degree to which an asset or security can be quickly bought or sold in the market with minimum price disturbance."[21] If the pension scheme is unable to provide the capital in time, then the fund manager may be forced to sell gilts to bring the LDI fund back to its target leverage level.[22]

19 The Investment Association (LDI0028)
20 The Investment Association (LDI0028); Barnett Waddingham LLP (LDI0036)
21 DB Investment, TPR, March 2017 (updated September 2019)
22 Barnett Waddingham LLP (LDI0036)

How LDI is used

25. The Pensions Regulator (TPR) told us in October 2022 that LDI had been in use as a strategy for around 20 years. It estimated that by the end of 2021, around 60% (3,000) of private sector DB schemes had LDI. Around 60% of these were in pooled LDI funds and 40% in segregated agreements. In terms of assets under management, 15% were in pooled and 85% in segregated agreements.[23] Smaller pension schemes are more likely to invest in pooled LDI funds, larger schemes are more likely to be in segregated funds, or to run their own LDI strategies. Very small schemes—with fewer than 100 members—typically have simple asset allocations and do not use LDI.[24]

26. By the end of 2021, total hedging with LDI funds covered around £1.4 trillion of DB pension scheme liabilities, up from an estimated £1 trillion at the end of 2018.[25] The Bank of England said that there was over £1 trillion invested in LDI strategies in October 2022.[26]

27. Nikhil Rathi, Chief Executive of FCA drew attention to the relatively high levels of hedging and market concentration in DB pension scheme investments in the UK, compared to the Netherlands:

> [Dutch] pension funds were using LDI, but using it to manage about 50% of their interest-rate risk. It feels as though ours got to about 85% of interest-rate risk being managed, so there is the question of the right balance. The other thing that is different for the Dutch is that, ultimately, they get a larger bond market, because they are a smaller bit of the overall euro-denominated bond markets. We are one jurisdiction, so the liquidity at the longer end of their bond market, relative to their size, is obviously much larger, whereas 90% of the index-linked sterling bonds are held by defined benefit pensions.[27]

Why it developed

28. We heard that LDI developed as a response to an increased focus from corporate sponsors on the cost of meeting DB pension promises, combined with new accounting standards and pension scheme funding requirements:

- The Investment Association said LDI was developed as a strategy in response to rising deficits after the dot-com bubble and new accounting standards and scheme funding requirements introduced in the early 2000s. Combined, these factors placed "a greater emphasis on funding and closing deficits, in turn leading to a view of DB funding through the lens of risk management."[28]

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23 Correspondence with The Pensions Regulator Defined benefit pension schemes with liability driven investments, October 2022
24 Correspondence with The Pensions Regulator Defined benefit pension schemes with liability driven investments, January 2023
25 Correspondence with the Pensions Regulator Defined benefit pension schemes with liability driven investments, October 2022
26 Correspondence between Sir Jon Cunliffe Deputy Governor of the Bank of England and Rt Hon Mel Stride MP, Chair of Treasury Select Committee, 5 October 2022
27 Q204
28 The Investment Association (LDI0028)

- Independent economic and financial markets commentator, Toby Nangle, described LDI as a market response to accounting standards and pension scheme funding requirements overseen by TPR, with its objective to protect pension benefits and the Pension Protection Fund (PPF). These factors led schemes to seek to align assets with liabilities, and for less well-funded schemes, to use leverage so that they could have higher exposure to growth assets.[29]
- Professor David Blake said that accounting standards were "responsible for encouraging pension funds to hedge interest rates because they require pension schemes to report the present value of the pension liabilities using a recognised discount rate."[30]
- Dr Con Keating and Professor Iain Clacher said the motivation for LDI was the "advent of new accounting and regulatory requirements which tied discount rates to market yields."[31]
- Joe Dabrowski of the Pension and Lifetime Savings Association said pension schemes were mainly using LDI "to make sure that their assets and liabilities are largely matched as part of their portfolio, so you do not see this volatility on balance sheets that gets reported on company balance sheets in return."[32]

29. There was agreement that the approach to funding that DB schemes have pursued over the last 20 years—including asset and liability matching and leveraged LDI—has resulted in a shift in DB scheme investments from equities to bonds. In 2006, 61.1% of DB scheme assets were invested in equities and 28.3% in bonds. By 2022, the proportions were around 19.5% in equities and 71.5% in bonds.[33]

30. In a speech to the ABI in February 2023, Economic Secretary to the Treasury, Andrew Griffith MP, expressed concern that "the combination of overly prudent regulation and mark to market accounting standards mean far too much UK capital is trapped in short term, low yielding investments."[34] In evidence to our Committee, he said that one outcome of the investment of DB schemes in gilts had been that that the Government had had "good access to low-cost finance."[35]

31. Supporters argued that the use of LDI by DB schemes was "prudent and appropriate": it had helped to improve transparency in scheme funding and enabled many schemes to track progress towards their long-term objective of securing pension benefits with an insurance company.[36] We heard that it was "well-founded in financial economic theory", with index-linked gilts providing a cash-flow that matched the payments that a mature pension scheme would expect to make.[37]

29 Q210
30 Prof David Blake (Director at Pensions Institute, Bayes Business School) (LDI0067)
31 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018)
32 Q38
33 PPF Purple Book 2022, Figure 7.2
34 Economic Secretary speech at the Association of British Insurers' Annual Conference, 21 February 2023
35 Q285
36 Q98; Q116; Insight Investment (LDI0029)
37 Barnett Waddingham LLP (LDI0036). See also, Jonathan Camfield (Partner at LCP) (LDI0023)The Investment Association (LDI0028);

32. Those who were more critical said that making pension funds sensitive to movements in gilt markets, combined with the cautious approach TPR had taken to scheme funding, had contributed to the closure of DB schemes. They also argued that it had introduced volatility in funding levels, making pension schemes sensitive to changes in gilt yields when in fact these had no real impact on the stream of payments schemes would actually need to make to members.[38] However, Tom Josephs, Director of Private Pensions at DWP, countered that the "cost of servicing liabilities is lower when interest rates are higher."[39]

33. We also heard arguments for alternative approaches that could be adopted. Dr Keating and Professor Clacher proposed considering the cash flows of both assets and liabilities.[40] Professor David Blake said that the most useful information accounts could provide about a DB scheme's funding status was "the market, or fair value of its assets and the amounts, timing and uncertainty of its projected pension payments."[41] Other suggestions included allowing schemes to 'smooth' the estimated values of their assets and liabilities, reflecting market rates over a longer period, rather than a single point in time.[42] Also questioned was the basis for the discount rate pension schemes are required to use—which is different from that used by insurers, or by pension schemes in the United States.[43] Economic Secretary to the Treasury, Andrew Griffith MP, said he did not think we should depart from alignment with international accounting standards: as in other areas, the Government sought to "reduce friction between the UK and the rest of the world."[44] He added that no approach was risk free: in the past, "subjective assumptions about the expected value of assets" had led to the need for the Pension Protection Fund to protect pensioners.[45]

34. **Both accounting standards and pension scheme funding requirements contributed to the development of LDI. The requirement to calculate a present value of liabilities using a market-based discount rate resulted in liability levels being very sensitive to changes in interest rates. LDI was an attempt to manage the resulting volatility in funding levels. While this may be appropriate for mature schemes, it is not obviously so for open schemes, for example. One outcome has been a shift in DB scheme investments from equities to bonds—reducing an important source of capital for the UK economy. This must have contributed to recent difficulties in securing investment and growth in the economy. Whether more flexibility could be allowed in the calculation of liabilities is a complex issue to which we will return in our wider inquiry on DB pension schemes.**

The role of TPR

35. The Pensions Regulator (TPR) is responsible for regulating scheme funding, in line with its statutory objectives:

38 Prof David Blake (Director at Pensions Institute, Bayes Business School) (LDI0067); Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018); Pensions and Investment Research Consultants (PIRC) (LDI0063)

39 Q282. See also, Q218 [Toby Nangle]

40 Q5

41 Prof David Blake (Director at Pensions Institute, Bayes Business School) (LDI0067)

42 Toby Nangle (Independent Economic and Markets Analyst) (LDI0043)

43 Q217; Tim Bush (Head of Governance and Financial Analysis at Pensions and Investment Research Consultants (PIRC)) (LDI0069)

44 Q282

45 Q282

- to protect the benefits of members of DB schemes;
- to reduce the risk of calls on the Pension Protection Fund (PPF);
- to promote, and to improve understanding of, the good administration of schemes; and
- to minimise any adverse impact on the sustainable growth of an employer.[46]

36. TPR's guidance is that trustees' approach to funding should depend on the extent of the scheme's maturity, as estimated by an actuary.[47] TPR has proposed that a significantly mature scheme would have a duration of 12 to 14 years.[48] It is likely that such a scheme would have been closed to new members and future accrual for some years, have no contributions coming in and be paying out to an increasingly large number of pensioners. In contrast, a relatively immature scheme would be an open scheme, with active members building up new benefits. Such a scheme might be cash positive: with contributions on behalf of those members and investment returns exceeding the amount paid out to pensioners.

37. TPR encourages schemes to 'de-risk' as they mature i.e. to reduce their investment risk and therefore the likely need to call on the employer for additional contributions if returns are lower than expected.[49] As part of this, it encourages schemes to match assets and liabilities and notes that it is common practice to use derivatives to increase the level of matching achieved.[50] TPR's then Chief Executive, Charles Counsell, told us:

> […] we have been endeavouring to manage a balance of risks. We are managing the risk to employers of the contributions that they must make into their pension schemes. We also need to take into account the liabilities that the pension scheme has, and in particular to ensure that, at the point at which the members of that scheme retire, they have the best chance of getting the full benefits that they have been promised by their employer […] With those things in mind, what we have done is to encourage schemes to think about the risks that they face. That means we have encouraged them to think about how they might hedge. In hedging, we are looking for them to be able to match the liabilities […] which are, in effect, the payments that members will get in the future, but also to hedge in terms of what might happen with interest rates and inflation […] That is where LDIs have come in.[51]

He made the point that decisions on investments were for trustees, TPR's role was to produce clear guidance. Where it concluded that schemes were not following the guidance, it might well "encourage them more strongly."[52]

46 Pensions Act 2004, s5; The Pensions Regulator (LDI0047)
47 Draft DB funding code, TPR, December 2022, chapter 5
48 DB funding code consultation document, TPR, December 2022
49 Fast Track and our regulatory approach: consultation document, TPR, December 2022, section 13; Defined benefit funding code consultation, TPR March 2020, para 623
50 Scheme management detailed guidance/funding and investment detailed guidance/DB investment, TPR, March 2017 (updated September 2019)
51 Q124
52 Q126

38. Organisations such as the Pensions and Lifetime Savings Association (PLSA), supported the approach TPR had taken, saying that without LDI:

> over the last decade, schemes and their employers would most probably have seen further periods of volatility on their balance sheets - risks that would typically need to be borne by sponsors, and sometimes members, through higher and less predictable contribution rates.[53]

The 100 Group of Finance Directors said LDI had played an important role in enabling pension schemes to manage their risks, which along with the cash contributions made by sponsors, had "resulted in a steady improvement in the financial position of most DB Schemes."[54] The Association of Consulting Actuaries (ACA) said that TPR had "historically taken an appropriate and proportionate approach to regulating the use of LDI and investment in general for individual schemes."[55] The Investment Association said:

> While it is not appropriate or expected that the regulator would endorse any particular investment strategy, TPR's willingness to discuss the role of LDI strategies in its DB Code of Practice and associated trustee guidance, has helped to signal to the market that LDI is an orthodox and established approach that trustees can consider as part of their investment toolkit.[56]

39. Critics, such as Dr Con Keating and Professor Iain Clacher, called for TPR's objective to protect the PPF to be removed on the basis that it gave TPR an explicit incentive to use market-based valuations. They argued that it was appropriate to calculate the present value of a scheme's liabilities at the point of the sponsoring employer's insolvency, so that it could be assessed for the PPF. This was not the case for open schemes expecting to pay pension benefits over many years. For them, it had resulted in increasingly 'prudent' investment approaches and discount rates and higher costs to employers.[57]

40. Toby Nangle, on the other hand, indicated there was strong public support for pension scheme members to be protected in the event of a scheme winding up. In line with this, the Pension Protection Fund was set up, with TPR to protect it. TPR had focused on ensuring schemes were funded and bonds looked a lot like the cash payments schemes would need to make. He had a lot of sympathy with the individual measures, understanding the reasons for them, but agreed that, together with accounting standards, they had "killed private sector DB."[58]

41. **A second motivation for LDI has been The Pensions Regulator's approach to regulating scheme funding in line with its statutory objectives to protect member benefits and the Pension Protection Fund. We will return to the question of what is needed for open DB schemes to thrive in our inquiry on DB schemes.**

53 Pensions and Lifetime Savings Association (LDI0035); See also BT Pension Scheme Management (LDI0037)
54 The 100 Group Pensions Committee (LDI0062)
55 Association of Consulting Actuaries (LDI0026)
56 The Investment Association (LDI0028)
57 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018)
58 Q217; Toby Nangle (Independent Economic and Markets Analyst) (LDI0043)

Debate on the role of leverage

42. Witnesses were sharply divided on whether leveraged LDI should be allowed under pensions legislation. The UK Government took an explicit decision, when transposing the Institutions of Occupational Retirement Provision (IORP) Directive, into UK law in 2005 to do so in a way that would permit the use of derivatives and gilt repo. Baroness Bowles of Berkhamsted, a member of the House of Lords Industry and Regulators Committee, pointed to differences in wording. The Directive contained a general prohibition on borrowing by pension schemes and allowed the use of derivatives for limited purposes only (reducing investment risk or facilitating effective portfolio management). In transposing it, the UK Government limited the prohibition to borrowing money, and allowed the use of derivatives for the purpose of generating "additional capital or income with an acceptable level of risk."[59] The current Chair of our Committee was Pensions Minister at the time those regulations were made.[60]

43. The Minister for Pensions, Laura Trott MBE MP, told us in December 2022, that the Department's approach to transposition had been "based on feedback from industry in which they expressed concern that gilt repurchase schemes and various other types of legitimate investment may be inadvertently restricted."[61] David Fairs, the then Executive Director of Regulatory Policy, Analysis and Advice at TPR, said there was a clear Government intent to allow those investments.[62]

44. Dr Keating and Professor Clacher said leveraged LDI had introduced risk, exposing pension schemes to short-term market changes:

> […] the extensive use of derivatives, such as interest rates swaps, where the scheme receives the long-term fixed rate (the yield on the gilt) and pays the short rate, fundamentally alters the risk bearing capacity of a scheme. Through this process, DB schemes have moved from being stable long-term institutions with the highest risk-bearing capacity of any financial institution, to being among those with the shortest horizons and highest sensitivity to short-term financial market performance.[63]

This, they said, had introduced "potential death spiral risks into the pension scheme which wait for the right circumstances to arise."[64] They questioned whether TPR understood the risk involved in "borrowing short and buying long."[65]

59 Baroness Bowles of Berkhamsted (LDI0060)

60 Q277; Q216; Occupational Pension Schemes (Investment) Regulations 2004 (SI 2005/3378). See Formal Minutes of the Committee for Session 2022–23, 1 February and 22 March 2023.

61 Correspondence with Minister for Pensions relating to the defined benefit pensions with Liability Driven investments inquiry; HC Deb 4 May 2004 c888

62 Q132

63 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018); Q10

64 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018); See also Baroness Bowles of Berkhamsted (LDI0060)

65 'In a typical leverage strategy, management acquires short or immediate-term wholesale funds or borrowing and invests those funds in longer term bonds. Prior to implementing a leverage strategy, management should have the skills to understand, measure, and manage the risks." Manual of Examination Policies of US Federal Deposit Insurance Corporation on duration mismatch (section 7.1)

45. Sarah Breeden of the Bank of England told us that she viewed gilt repo as borrowing in economic terms because "as the price of the asset changes, you need to make good on it and make a payment to reduce the credit exposure." Leverage could be a good thing. The important thing was that the risk was managed and that "when signing up to an LDI strategy trustees know what the risks they are taking on are." The trustees were the first line of defence in this respect, TPR the second.[66]

46. **The European Directive on the Institute for Occupational Retirement Provision (IORP) contained restrictions on borrowing. In 2005, the UK Government took the decision to transpose it into law in a way that allowed existing investment practices, including the use of derivatives and gilt repo, to continue. Supporters of leveraged LDI argue that it helped improve scheme funding levels. However, it introduced new risks, making pension funding levels very sensitive to changes in gilt yields. These risks needed to be understood, with adequate arrangements in place throughout the investment chain to manage them. Deficiencies in this became evident in the LDI episode in September 2022.**

66 Q254–5; Q240

3 The LDI episode

47. In this Chapter, we explore the events of September 2022 and how defined benefit pension schemes were affected.

The events of September 2022

48. Sharp increases in gilt yields after the 'mini-Budget' on 23 September 2022 placed pressure on LDI funds, leading to the Bank of England having to intervene on financial stability grounds.[67] The timeline of this intervention is available in Box 2.

Box 2: Timeline of the Bank of England's intervention

Friday 23 September: Announcement of the Government's Growth Plan ('mini-Budget').[68] Long-term gilt yields rise by 30 basis points (bps). LDI fund managers reported concerns to the Bank of England about the implications if these trends continued.

Monday 26 September: Yields on 30-year gilts rise by 50 basis points. LDI fund managers reported that if conditions continued to worsen, this could force them to sell large quantities of long-term gilts.

Tuesday 27 September: Although 30-year gilt yields initially fell by 20 bps, by the evening they had risen by 67 points compared to that morning. The Bank was informed that at these levels, multiple LDI funds were likely to fall into negative asset values and would have to begin the process of winding up the following morning. This was likely to result in the banks who had lent to LDI funds, selling a large quantity of the gilts they were holding as collateral. The Bank of England said this risked "driving a potentially self-reinforcing spiral and threatening severe disruption of core funding markets and consequent widespread financial stability."

Late on the morning of Wednesday 28 September: The Bank announced a temporary emergency bond buying programme.[69] The intention was to protect financial stability, giving affected LDI funds time to put their positions on a sustainable footing.[70]

10 and 11 October: The Bank of England widened the scope of its temporary gilt-buying programme before it ended as planned on **14 October.**

In total, the Bank of England purchased £19.3 billion of gilts over the period of its intervention. By 12 January 2023, it had resold them at a profit of £3.8 billion.[71] Its intervention gave LDI funds time to restore their levels of resilience.[72]

The Bank's analysis of the causes of the problem

49. Sir Jon Cunliffe, the Bank of England's Deputy Governor for Financial Stability, told the Treasury Select Committee on 5 October, that the "scale and speed" of changes in gilt yields leading up to Wednesday 28 September had "far exceeded historical moves,

67 Gilt Market Operations - Market Notice 28 September 2022, Bank of England
68 HM Treasury, The Growth Plan, 23 September 2023; Sir Jon Cunliffe, Letters to Treasury Select Committee, 5 October 2022
69 Gilt Market Operations - Market Notice 28 September 2022, Bank of England
70 Sir Jon Cunliffe, Letters to Treasury Select Committee, 5 October 2022 and 18 October 2022
71 Bank of England completes unwind of recent financial stability gilt purchases, 12 January 2023; Oral evidence to Treasury Select Committee, 16 January 2023, Q286
72 Bank of England, Financial Stability Report - December 2022, p10

and therefore exceeded price moves that are likely to have been part of risk management practices." When the Financial Policy Committee had looked at the issue in 2018, it had assessed the capacity of the biggest derivative users among UK pension funds to respond to a rise in gilt yields of 100 basis points.[73]

50. Giving evidence to the Treasury Select Committee on 16 January 2023, the Governor of the Bank of England, Andrew Bailey, said that three things had come together in the LDI episode: a very abrupt movement in rates; leverage; and structural problems that became exacerbated by the first two factors, so that "pooled funds in particular became forced sellers" of gilts.[74]

51. Economic Secretary to the Treasury, Andrew Griffith MP, told us that the speed of market moves had been a factor:

> It is very difficult to sort of cleanse our minds with the benefit of hindsight. The collateral buffer is the key thing, but also the speed of response. Had this played out on a longer-time horizon—a really significant move in how the gilt markets hitherto operated—you could have seen a different outcome.[75]

52. In an earlier speech on 7 November 2022, Sarah Breeden, Executive Director of Financial Stability Strategy and Risk at the Bank of England, explained that the root cause of the problem had been "poorly managed leverage." The collateral buffers in place had proved insufficient to the rise in gilt yields. Pension schemes had been asked to provide more capital, but these resources could take time to mobilise. The issue had been particularly acute for 'pooled funds', in which limited liability meant investors could decide not to provide additional capital. As a result, pooled funds became 'forced sellers' of gilts at a rate that would not have been absorbed in normal trading conditions, let alone during the stress period.[76]

53. In its Financial Stability Report in December 2022, the Bank of England said it was "important that shortcomings from this episode are identified and action taken to ensure financial stability risks can be avoided in future." It identified four areas of weakness in particular:

- LDI funds and pension schemes lacked resilience to shocks, having not adequately adjusted resilience levels in response to changes in gilt yields through the year. There had been deficiencies in internal stress testing, for example "in failing to account for extreme shocks to the gilt market, and the correlated responses of other market participants to stress episodes."

- The replenishment of LDI funds' liquidity buffers had been "hindered by firms' operational arrangements, and in some cases by the governance processes at pension schemes, exacerbating their liquidity issues and need to sell assets in stressed conditions."

73 Sir Jon Cunliffe, Letters to Treasury Select Committee, 5 October 2022; Margin requirements are a vital part of the financial system to manage counterparty credit risk
74 Oral evidence to TSC 16 January 2023, Q279
75 Q290
76 Risks from leverage: how did a small corner of the pensions industry threaten financial stability? Speech by Sarah Breeden, 7 November 2022

- Banks who had lent to LDI funds were exposed to the risk of loss in the event of LDI funds failing to meet collateral calls needed when markets changed. The episode highlighted shortcomings in how banks monitored and managed risks with respect to LDI funds.
- Assessing and monitoring risks in the LDI fund sector was hampered by a lack of data, exacerbated by a complex and fragmented regulatory regime.[77]

The arrangements that banks have in place to monitor the risks associated with LDI do not fall within our remit. The evidence we received on the other three points and the FPC's recommendations to address them are discussed in Chapters four to six.

54. **Sharp rises in gilt yields which LDI funds lacked the resilience to manage, led to the Bank of England having to intervene in September 2022 to protect financial stability. DB pension scheme investments must not be allowed to jeopardise the UK economy again.**

Impact on pension schemes

55. TPR has reported improvement in scheme funding levels (i.e., assets as a proportion of scheme liabilities). In December 2022, its then Chief Executive, Charles Counsell, told us that the aggregate funding level in DB schemes had improved since the beginning of the year.[78] The Pension Protection Fund told us in April 2023 it estimated that the funding ratio had improved:

> by over 20 percentage points between 31 March 2022 and 31 March 2023—with the aggregate surplus of schemes increasing from £193.0 billion to £358.3 billion in the same period.[79]

56. The PPF told us that a "minority of schemes may have seen their funding position deteriorate following the events of September 2022." However, there were some reasons for which schemes may have been negatively affected that would not have been captured by its estimate.[80]

57. Reporting on analysis of 350 schemes in May 2023, Dr Con Keating and Professor Iain Clacher said that their results, if representative, suggested that funding ratios had not improved by as much as had been asserted by TPR and others. Almost a third of their sample saw their funding ratio deteriorate. Just over one in five (22%) of their sample was in deficit, compared to a PPF estimate of 13.4%. In contrast, their estimate of the proportion of deficit in December 2021 (41.5%) is very similar to that estimated by the PPF.[81]

77 Bank of England - Financial Stability Report, December 2022, section 5.3
78 Q124; The level of funding on a 'PPF basis' refers to the estimated cost of securing PPF compensation levels under Pensions Act 2004, s179. This is less than the amount that would be needed to pay for full scheme benefits to be insured
79 Correspondence with Pension Protection Fund on Defined Benefit Pension Schemes with Liability Driven Investments
80 Correspondence with Pension Protection Fund on Defined Benefit Pension Schemes with Liability Driven Investments
81 DB Scheme Funding: Some Empirical Results and Consideration, Iain Clacher and Con Keating, 13 May 2023

58. They also drew attention to the reduction in the value of assets held by DB schemes. PPF data showed this fell from £1.8 billion at the end of 2021 to £1.4 billion at the end of 2022.[82] This called into question whether schemes would be able to earn the higher rates of return they would need in future.[83] If further contributions were required to replace the lost assets, this would attract tax relief, at a cost to the Exchequer.[84] Charles Counsell questioned the significance of the loss of assets, arguing that what mattered was the funding level: the present value of liabilities had reduced by more.[85]

59. However, the liability figure, in particular, can exhibit a degree of volatility. For example, between 2007 and 2023, the biggest aggregate deficit was £412 billion (funding ratio: 78%) in August 2016, but three months later this had almost halved to £224 billion in November 2016 (funding ratio: 87%).[86]

60. We asked DWP whether TPR and the PPF had the information needed to provide detailed information on the extent to which individual schemes 'lost out' as a result of the events of September 2022.[87] The Minister's letter in response did not address this point.[88] This is most regrettable.

Reasons schemes might have lost out

61. TPR explained that those schemes that experienced a deterioration in their funding levels included some invested in pooled funds and others who had been unable to meet collateral calls from LDI funds when gilt yields spiked in 2022.[89]

62. Analysis by Lane, Clark & Peacock suggests it may be important to understand the reasons for a deterioration in funding level due to the events of September. One might relate to a loss of its hedge and the timing of that: for example, if it lost it and then reinstated it at a higher rate; or did not reinstate it and then saw its liabilities rise as gilt yields fell again. A larger number of schemes would have had their asset allocation disrupted: some may have sold assets to meet collateral calls at depressed prices or incurred higher than usual trading costs; others may have taken out a loan from the sponsoring employer to meet collateral calls; some with meaningful allocations to illiquid assets may have seen this rise as a proportion of their total, above what they had targeted, which could take time to rebalance, following the events after the 'mini-Budget'.[90]

63. Dr Con Keating and Professor Iain Clacher drew attention to differential outcomes for schemes depending on their funding level in 2021: those in deficit were far more prone to experience deteriorations in their 2022 funding ratio, whereas those in surplus, improved further. They said this was "a direct challenge to the wisdom of fully hedging the interest rate sensitivity when schemes are in deficit."[91]

82 PPF 7800 Index, January 2022; PPF 7800 Index, January 2023
83 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018)
84 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair of the Bond Commission at European Federation of Financial Analysts Societies) (LDI0077)
85 Q172; Q218
86 Source: House of Commons Library from PPF 7800 index - for an illustration, see Chart 2 in Chapter 2
87 Q303
88 Letter from the Minister for Pensions and the Economic Secretary to the Treasury to Chair, 20 April 2023
89 Annual Funding Statement 2023, TPR
90 Lane Clark and Peacock (LDI0049)
91 DB Scheme Funding: Some Empirical Results and Consideration, Iain Clacher and Con Keating, 13 May 2023

64. The Eumaeus Project (a blog post run by Dean Buckner, a former Bank of England valuation specialist, and Professor Kevin Dowd) were concerned that the impact of the events in September had yet to be assessed. They had asked for information from the Pension Protection Fund, which had been unable to tell them whether LDI hedging strategies had reduced or increased funding levels.[92]

65. **According to TPR the majority of pension schemes emerged from 2022 with improved funding levels. However, external analysis raises questions as to how confident we can be about these improvements. We are concerned that some schemes had their funding levels negatively affected as a result of the events of September 2022. In addition, the aggregate value of scheme assets, according to the PPF, was £400 billion less at the end of 2022 than it was at the beginning. It is important that we understand what the impact was and what led to these results so that the system can work better in the future.** ***DWP should work with TPR and the PPF to produce, by the end of 2023, a detailed account of the impact on pension schemes of the LDI episode. This should:***

i) ***look at the impact on funding levels, detailing how the value of their assets and liabilities changed, showing the results disaggregated by whether the fund used LDI and, if so, whether in a pooled, segregated or bespoke arrangement; and***

ii) ***include analysis of the factors which contributed to scheme funding improving or deteriorating, including the role played by LDI strategies.***

92 LDI002 [Eumaeus]

4 Future use of LDI

66. This Chapter considers what has been done to improve the resilience of LDI funds since the events of September and what this means for the use of LDI as a useful risk management tool.

Recommendations from the regulator to improve resilience

67. The Bank of England's intervention gave LDI funds the opportunity to improve their resilience to changes in gilt yields. On 30 November 2022, the regulators in Ireland and Luxembourg, where most pooled LDI funds are based, said yield buffer levels had increased since September 2022 and the funds were now able to manage a change in gilt yields of between 300 and 400 basis points. They did not think any reduction in buffer levels was appropriate at that point.[93] TPR acknowledged this expectation and said the same should apply to segregated funds and single-client funds as they faced the same market risks and operational challenges.[94]

68. In its December 2022 Financial Stability Report, the Financial Policy Committee (FPC) welcomed these statements and recommended regulatory action to ensure LDI funds retained that level of resilience.[95] In March 2023, it said that LDI funds should be resilient to "severe but plausible stresses" taking account of historic volatility in gilt yields, and the potential for forced sales to amplify market stress and disrupt gilt market functioning. It judged that this meant that LDI funds should be resilient to a yield shock of around 250 basis points (bps), at a minimum.[96] In addition, there should be a buffer for managing day-to-day movements in yields. If this was set at 100 bps, and the market stress buffer at 250 bps, a total of 350 bps would be needed.[97] In terms of the assets that could be held for this purpose:

> Liquid assets held to ensure resilience in the event of such a shock should be unencumbered and immediately available. Fund managers should have scope to consider additional assets, which investors had authorised them to use to meet collateral demands. Managers should apply appropriate prudence in doing this, for example by applying suitable haircuts.[98]

The minimum level of resilience should be maintained in normal times but could be drawn down in periods of stress. If it was used, pension schemes should be "expected to deliver collateral to their LDI vehicles within five days." Schemes unable to do this would be expected to maintain higher buffers.[99]

93 Letter from the Central Bank of Ireland, 30 November 2022; The competent authority in Luxembourg is the Commission due Surveillance du Secteur Financier
94 Maintaining liability-driven investment resilience, TPR, 30 November 2022
95 Bank of England, Financial Stability Report - December 2022, section 5.4
96 Bank staff paper: LDI minimum resilience - recommendation and explainer, March 2023
97 Using leveraged liability driven investment, TPR, 24 April 2023
98 Financial Policy Summary and Record - March 2023
99 Bank staff paper: LDI minimum resilience - recommendation and explainer, March 2023

69. The Minister for Pensions and Economic Secretary to the Treasury told us that the framework put in place by the FPC aimed to:

> create additional headroom for funds to continue to operate during large market moves and provide a longer timeline for them to recapitalise in any orderly manner. In this respect, the FPC's recommendation should reduce financial stability risks around recapitalisation.[100]

70. The FPC's recommendation for the minimum level of steady state resilience reflects what was put in place by LDI funds after the events of September 2022. Professor David Blake said there needed to be an appropriate stress test for leveraged LDI products, taking account of the "systemic consequences of a large number of funds trying to de-lever their positions at the same time, taking into account daily market liquidity."[101] Others called for a targeted approach, depending on the nature of the LDI arrangement.[102]

71. The Bank of England has said it intends to conduct an "exploratory stress test around non-bank risks" which would aim to improve understanding of how different participants would respond in a variety of scenarios.[103]

72. **The objective of the latest Financial Policy Committee (FPC) guidance, to protect financial stability is welcome. We look forward to seeing the results of the Bank of England's planned stress tests, made more pressing by recent rises in gilt yields.**

How pension schemes might use LDI in future

73. Many respondents to our call for evidence in October 2022, said they thought LDI was still fit for purpose, subject to some changes being made in light of the turbulence of September 2022.[104]

74. The changes made since that time have changed the calculations schemes will need to make in deciding whether and how to use LDI. TPR said the need for leveraged LDI was likely to decline over time, due to the increasing maturity of DB schemes and improvements in funding levels.[105] However, it thought LDI still played an important role in improving scheme funding and had encouraged schemes to consider how they managed risks involved.[106] Many witnesses agreed with this.[107] Some made the point that there was a trade-off between the resilience of the system and DB schemes being able to match their assets and liabilities in a cost efficient way.[108]

75. A further factor is that the environment has changed, with interest rates rising. TPR told us that LDI "typically [had] been used to protect schemes from adverse movements

100 Correspondence with the Minister for Pensions and the Economic Secretary to the Treasury (defined benefit pensions with Liability Driven Investments) April 2023
101 Prof David Blake (Director at Pensions Institute, Bayes Business School) (LDI0067)
102 Q40; Cardano (LDI0072)
103 Correspondence with the Minister for Pensions and the Economic Secretary to the Treasury (defined benefit pensions with Liability Driven Investments) April 2023
104 Lane Clark and Peacock (LDI0049)
105 Correspondence with the Pensions Regulator (defined benefit pensions with Liability Driven Investments), January 2023; Dalriada Trustees Limited (LDI0073)
106 The Pensions Regulator (LDI0047)
107 Lane Clark and Peacock (LDI0049)
108 The Investment Association (LDI0081); Insight Investment (LDI0076)

in interest rates" and to "reduce the impact on funding levels when interest rates fall."[109] Minister for Pensions, Laura Trott MBE MP told us that LDI strategies had "played a useful role over the last couple of decades":

> In a time of falling interest rates, which as we all know are difficult for DB schemes, LDI allowed scheme performance to improve [...] broadly my opinion is they have had their place. However, the events of last year have shown there are a number of deficiencies in the way they were managed and governed, particularly in the collateral that they were asked to hold, in data and in overall resilience of the financial system.[110]

76. The Government Actuary expected LDI to "continue to have an important role for schemes" but noted that measures to increase the resilience of LDI funds might "result in a lower allocation to leveraged LDI or reduced allocations to non-bond assets, which could increase funding risk or reduce expected return, lengthening the time it takes a scheme to reach its objective."[111]

77. When interest rates started to rise, the strategies involved required pension schemes to provide additional capital to the LDI funds, whereas in the past they had received them. Professor David Blake told us that existing strategies should have been unwound once it was clear from Bank of England announcements that interest rates would rise: "had they been reversed, then pension funds would have received collateral payments, not paid them." That this did not happen was "a very serious error of judgement by those advising pension scheme trustees."[112] Some of the actuaries that gave evidence disagreed, saying that schemes were "trying to avoid taking a position on interest rates by entering into LDI contracts." It was like people fixing a mortgage at a rate they could afford.[113] Some critics argued strongly that LDI had never been "fit for purpose" and still gave rise to potential for systemic risk.[114]

78. Views differed on whether leverage could or should be banned. Tim Bush, Head of Governance and Financial Analysis at Pensions and Investment Research Consultants, said leveraged LDI should "probably be prohibited." He did not think getting pension funds to hold more collateral would be an effective "work around", as it might create a new form of "herd behaviour."[115]

79. Toby Nangle cautioned against banning leverage, one of the impacts of which would be "a huge divestment of growth assets." There was still an impetus for schemes to reduce the mismatch between assets and liabilities. Removing the ability to use leverage would "simply mean that you need to have a lot more invested in physical bonds and a lot less invested in things that might be illiquid, such as infrastructure, venture capital or equity and these sorts of things."[116] Leah Evans of the Institute and Faculty of Actuaries cautioned

109 Correspondence with the Pensions Regulator about the impact on defined benefit pension schemes of movements in financial markets
110 Q280; Q281
111 Correspondence with the Government's Actuary Department about the LDI inquiry
112 Prof David Blake (LDI0053); Correspondence with the Pensions Regulator about the impact on defined benefit pension schemes of movements in financial markets
113 Q40; Q48
114 Q10; Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair at Bond Commission of the European Federation of Financial Analysts Societies) (LDI0018)
115 Q216
116 Q216

against a "knee-jerk approach", such as banning levels of leverage, and recommended an approach targeted at the cause of the problem, such as more guidance around the use of leverage.[117] TPR issued new guidance on the use of LDI in April 2023.[118]

80. John Ralfe suggested that: "rather than an outright legal ban—not easy to draft or enforce without unintended consequences", it would be possible to achieve a "soft" ban, through "tougher supervision by TPR and more transparent accounting."[119] Sarah Breeden thought that if some pension schemes were unable to meet the new requirements for resilience it was "reasonable to ask whether an LDI strategy is appropriate for them."[120]

81. **Leverage may have worked relatively well for pension schemes during a long period of low and volatile interest rates. However, it exposed them to additional liquidity risk and requirements, as collateral demands can change over short periods when interest rates change. With the imposition of much higher capital buffers, the cost of LDI has risen. For schemes in deficit who use these strategies, this may mean it takes longer to reach their long-term objective. Trustee boards will continue to have complex decisions to make about whether and how to use LDI. The experience of September 2022 indicates some will face challenges doing so.** ***TPR should require trustees to report certain data on their use of LDI and should develop a strategy for engaging with schemes based on the results more closely.***

117 Q40
118 Using leveraged liability-driven investment, TPR, 24 April 2023
119 John Ralfe Consulting (LDI0065)
120 Q253

5 Governance of LDI risks

82. This Chapter looks at the responsibility of trustees in managing the risks of LDI and the challenges some have faced. It looks at the steps TPR has taken to improve standards of governance in some schemes.

The role of trustees

83. As discussed in Chapter 2, the Government took the decision in 2004–05 to allow pension schemes to continue the existing practice of using derivatives as part of their investment strategies. It did not want to "impose major restrictions on trustees' ability to manage their scheme's investments." Trustees would decide what was "in the best interests of scheme members to ensure that returns are maximised."[121]

84. TPR told us that pension scheme trustees were the "first line of defence and have a duty to act in members' best interests. They are responsible for setting their scheme's investment strategy and for carrying it out."[122] Sarah Breeden of the Bank of England agreed, saying that it was for trustees to " understand the strategies that they are taking on and the liquidity risk that they run as a result of taking on that leverage."[123]

85. The second line of defence is TPR, which has a statutory responsibility for improving the administration of workplace pensions. It issues guidance on how to exercise their responsibilities including a funding code of practice. This sets the context within which trustees make investment decisions, independently exercising their fiduciary duties.[124] Independent trustee firm, Dalriada, said the "behaviour of pension schemes as regards investments and hedging in particular are heavily influenced by the prevailing funding regime."[125]

86. Lane, Clark & Peacock did not think governance and understanding were key drivers of the LDI episode. In their view, it was "the unexpected speed and magnitude of gilt yield rises that cause challenges."[126] Nonetheless, it is clear that some schemes were better prepared to respond than others. Evan Guppy, Director of Investments at the Pensions Protection Fund (PPF), told us how they operated LDI:

> […] we manage a lot of our assets in-house. We have a full-time professional investment team who look after the portfolio on a day-to-day basis. We are able to react very quickly. If we got into a situation where we did need to raise more cash for our LDI portfolio, we would have been able to do so in a matter of days.[127]

87. David Fogarty of independent trustee firm, Dalriada, said well-governed schemes would typically have stress-tested the ability of the scheme to withstand interest rate changes in the region of 2% (higher than the 1% modelled by the Bank of England in

121 HC Deb 4 May 2004 c888 [Chris Pond]
122 LDI0047 [The Pensions Regulator]; Funding and investment: detailed guidance, The Pensions Regulator (updated September 2019)
123 Q236; See also Bank of England, Financial Stability Report Press Conference, December 2022
124 The Investment Association (LDI0028)
125 Dalriada Trustees Limited (LDI0073)
126 Lane Clark and Peacock (LDI0049)
127 Q135

2018).[128] However, this experience was not universal. Some trustees only seemed to have understood the nature of what they had invested in during the period of the episode itself:

> If you look at many of the situations where there were failures, the trustee did not appreciate that the particular pool, the LDI fund or whatever, only dealt once a week. They did not appreciate that the other assets they sold might have had that frequency or even less frequency, so they did not appreciate the challenges to get cash to support the strategic position that they had.[129]

88. The then Chief Executive of TPR, Charles Counsell, acknowledged that there was a fair question about "the degree to which smaller schemes really understood the implications of the investments they were taking."[130]

89. Chief Executive of the Financial Conduct Authority, Nikhil Rathi, told us that given the complexity of LDI products, the "financial acumen of some of the trustees" was an issue. There was a question for the FCA about "whether having several thousand of these schemes, rather than a significantly smaller number that are highly professionalised" was delivering the right economic outcome.[131] He also noted that pension schemes in the UK used LDI to hedge a relatively high proportion of interest rate risk (85% compared to 50% in the Netherlands), and that at the same time, their investments were relatively concentrated (Dutch pension funds were a "smaller bit of the overall euro-denominated bond market", whereas "90% of the index-linked sterling bonds are held by defined benefit pensions"). There was a question of "the right balance."[132]

90. Economic Secretary to the Treasury, Andrew Griffith MP, said one of the lessons to be learned from the LDI episode was "making sure…that trustees and those responsible are "fully apprised of the risks they take with whatever instrument they use."[133] It was important to enable trustees to be better advised, better able to understand the risks and more confident in exercising judgments about those risks.[134]

91. **TPR encouraged pension scheme trustees to use leveraged LDI, which involves complex financial instruments. It continued to rely on them as the first line of defence to manage the risks, despite its longstanding concerns about governance standards in some schemes, particularly smaller ones which do not benefit from economies of scale. As the regulator, with responsibility for standards of governance in workplace pension schemes, TPR was the second line of defence. It issued guidance on managing the risks of LDI but was not able to monitor whether that was being followed. It should have focused earlier on the risks of encouraging trustees to use such complex financial products and worked with DWP to consider what further action was needed to mitigate the risk.**

128 Q85
129 Q71
130 Q138
131 Q198
132 Q204
133 Q281; Q284
134 Q284

Proposals to improve governance

92. TPR have been pointing to weaknesses in scheme governance for some years, saying that while there were many good trustees, there were also many "(particularly in small and medium sized schemes) who are still not making the grade."[135] In a discussion paper in July 2016, it said that its ongoing surveys and engagement had shown that "not all trustee boards are meeting the standards of governance and administration we expect, or are finding it challenging to do so."[136] It noted that some trustees appeared to have difficulty engaging with their advisers and service providers, with areas of weakness including key investment and administration activities, and managing conflicts of interest.[137]

93. Charles Counsell told us that one way to improve governance was to reduce the number of small schemes through consolidation vehicles, such as superfunds, which would need to be put on a statutory footing:

> I am not saying that all small schemes are badly managed or badly governed, but it is true that across the board, they are more typically badly managed. The question, then, is how we move to consolidate the smaller schemes. For that, we need consolidation vehicles. In the DC world, we have that through master trusts. In the DB world, it would be through super-funds. You will be aware that we have an interim regime for super-funds, but we believe that should be put on a statutory footing to make them safe, because ultimately, if there is going to be consolidation, we must consolidate into safe vehicles.[138]

94. A possible second approach was to have a professional trustee on each board but there were challenges to this:

> We have said for some time that we believe that schemes should have a professional trustee sitting on their board, but the reality is that the capacity of the professional trustee market does not match the number of schemes, so you cannot get there immediately; that goes back to consolidation. Equally, once we have got to a point where we can get professional trustees on all trustee boards, that will improve governance.[139]

95. A further question was whether there should be an "authorisation regime or regulation around professional trustees." There was an existing accreditation process, but TPR could not insist on trustees doing it.[140]

96. Our Report, *Pension Stewardship and COP 26*, noted some of the challenges facing small schemes and welcomed the intent of DWP and TPR to encourage pension scheme consolidation.[141] DWP consulted on proposals for DB consolidation in December 2018 but has still not responded to this.[142]

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135 21st century trusteeship – why standards need to rise, TPR blog post, 05 October 2017
136 21st Century Trusteeship and Governance. Discussion Paper, TPR, July 2016
137 21st Century Trusteeship and Governance. Discussion paper response, December 2016; 21st century trusteeship and governance, TPR archived webpage September 2017
138 Q166
139 Q166
140 Q167
141 Pensions stewardship and COP 26, Work and Pensions Committee, September 2021, Summary
142 Defined benefit pension scheme consolidation, DWP, December 2018

97. Minister for Pensions, Laura Trott MBE MP, told us that the Government considered consolidation to be "generally a positive thing for scheme members." It was looking at work in this area but had nothing to bring forward at this point.[143]

98. The FPC said it was essential, given potential risks to financial stability, that the Government continued to implement a "broader strategy to ensure that DB schemes in the UK were sustainable, well-governed and that scheme members achieved better outcomes."[144]

99. **TPR told us that scheme consolidation would help improve scheme governance, by reducing the number of small schemes. However, consolidation needs to be into a safe vehicle, which requires legislation. DWP consulted on DB consolidation in 2018 but has still not responded to this. Another long-standing question has been whether to require some form of qualification for at least some trustees.** ***As a first step to improving governance, DWP should respond to its consultation on DB consolidation no later than the end of October 2023. It should then work with TPR as a priority to improve the regulation of trustees and standards of governance, as it has said it intends to do. Given the time it will take to consult on, legislate for, and implement measures to improve governance, DWP should consider whether the use of LDI could be restricted, for example, based on a test related to a trustee board's ability to understand and manage the risks involved.***

Investment consultants

100. There is a statutory requirement on trustees to "obtain and consider proper advice" in relation to their investments.[145] The Investment Association said consultants had a critical role to play in helping ensure trustees were aware of the benefits and risks of LDI.[146]

101. David Fogarty of Dalriada, described the abilities of some schemes to get good advice as an "obvious weakness in the system":

> […] it is for the trustees to insist and ensure that they get good advice. To do that, the trustees have to be equipped, they have to have the skills and the expertise. They have, to some extent, to be able to talk the same language as the consultants.[147]

He told us that smaller, less well-governed schemes might not have understood the risks. Advisers might have explained LDI as a tool to manage the potential for interest rates to fall. However, "if you looked back, you will find that very few of those presentations [from advisers] were exploring the "outcome of rates potentially rising materially."[148] The UK Shareholders' Association said that "anecdotally, trustees were not properly apprised of the risks…For example, we have heard that the term 'leverage' was not used."[149]

102. Dr Keating and Professor Clacher spoke to many investment consultants after the gilts crisis and were concerned at the quality of the responses:

143 Q293
144 Financial Policy Summary and Record - March 2023
145 Pensions Act 1995, s36(3); Occupational Pension Schemes (Investment) Regulations 2005 (SI 2005/3378), reg 2
146 LDI0028 Investment Association
147 Q67
148 Q85
149 UK Shareholders' Association (LDI0013)

> In all too many cases our questions are answered with generalities, and these are all too often incorrect. There is a marked reluctance to admit that they do not know the answer to a question and will attempt to gloss over this. Worryingly, there are many consultants who appear to have only a fleeting acquaintance with the detail of the plumbing of the financial system, or in many cases even to understand that those operational minutiae are critically important.[150]

103. The FCA called for investment consultants to be brought within its remit.[151] It Chief Executive, Nikhil Rathi, told us that one reason was a sense that "at times, they were giving standardised advice—templated advice—to a range of different clients, rather than really thinking through in depth and detail what might be the right thing for each pension fund."[152] This was a concern shared by Dalriada, which was "concerned about the transparency of the financial models on which advice to invest in LDI products is often based." These models underpinned much of the advice given and Dalriada had reservations as to whether "all firms operating in the industry have the resources and sophistication to develop and maintain best in class models."[153]

104. The Financial Policy Committee supported bringing investment consultants within the FPC's regulatory perimeter.[154] Economic Secretary to the Treasury, Andrew Griffith MP, told us that this was "the direction of travel" and said he would be interested to hear whether this was needed to address deficiencies in the advice given.[155]

105. **We heard, including from the FCA itself, that in some cases investment consultants were giving standardised advice, rather than thinking through what was best for the individual pension fund. Given the complexity of the decisions trustees are required to make, this is a concern.** ***The Government should bring forward plans for investment consultants to be brought within the FCA's regulatory perimeter before the end of this Parliament.***

LDI funds

106. We heard that due to the volatility in gilt yields, pension funds were having to make significant decisions at speed about how to respond to calls for additional capital. In some cases, they were hindered in doing so because of difficulty getting the information they needed from advisers and LDI funds.[156] In some cases, the trustees were "required to make quick decisions on imperfect and incomplete information." This was because, "the LDI managers were overloaded and in some cases were unable to respond in a timely manner to queries from their clients (or their advisors)" and "the investment advisory market was stretched by the volume of the advice required and the volume of asset transfers to arrange."[157] Further, the way in which pooled funds worked meant that schemes invested in them (typically the smaller ones) had less flexibility and were more likely to have decisions to reduce hedging made on their behalf.[158]

150 LDI 0018 Con Keating and Iain Clacher
151 Letter from FCA to Lords Industry and Regulators and Economic Affairs Committees, October 2022
152 Q204
153 Dalriada Trustees Limited (LDI0024)
154 Bank of England, Financial Stability Report, December 2022, p 99
155 Q294
156 Dalriada Trustees Limited (LDI0024)
157 Barnett Waddingham LLP (LDI0036)
158 Q86

107. Given the operational challenges that had been experienced in September, we wrote to LDI fund managers to ask how they operated collateral buffers and how frequently they communicated with pension schemes and their advisers. Their responses suggested that there was variation in what is being provided systematically. In some cases, information was provided weekly, in others quarterly and data lags varied between one and 25 business days. Some, but not all, operated a red-amber-green framework to signal to clients their status and what action was required from them.[159] Practice may have changed, since the FCA issued recommendations to LDI fund managers in April 2023, including on communication. For example, it expected managers now to "inform clients clearly both what they need to do if the identified circumstances arise and the consequences if clients are unable or unwilling to take these actions."[160] The Financial Policy Committee had made the point in March that "it was important that trustees had a simple mechanism for monitoring, and LDI funds disclosing, levels of resilience in dynamic markets.[161]

108. **To play their part in monitoring LDI, trustees need timely and accurate information from LDI funds and advisers. We welcome the fact that the FCA issued guidance on this in April. *TPR should work with the FCA to review whether the guidance the FCA issued to LDI funds in April has been implemented effectively and is providing trustees with the simple mechanism for monitoring LDI that the FPC said was needed.***

159 Legal & General Group Plc (LDI0075)Insight Investment (LDI0076)Schroders (LDI0082)Columbia Threadneedle Investments (LDI0086)BlackRock (LDI0085)
160 Further guidance on enhancing resilience in Liability Driven Investment, FCA, 24 April 2023
161 Bank of England, Financial Policy Summary and Record of the Financial Policy Committee meeting on 23 March 2023

6 Managing systemic risks

109. This Chapter looks at the current framework for managing LDI and how it has managed systemic risks.

Data and monitoring

110. The December 2022 Financial Stability Report identified a lack of data on the LDI sector, exacerbated by a "complex and fragmented regulatory regime" as shortcomings highlighted by the LDI episode.[162]

111. In 2018, the Bank of England had highlighted concerns about the "risks associated with leverage from the use of derivatives in the non-bank financial system." It was not clear whether pension funds paid sufficient attention to the "liquidity risks" arising from LDI. It said it would work with regulators (including TPR) to "enhance the monitoring of the potential liquidity demands and losses generated by non-bank leverage."[163]

112. In 2019, TPR published a survey on the use of LDI by schemes. This looked at the extent to which schemes were using leveraged LDI and how this was increasing. It also asked about the maximum amount of leverage allowed in the LDI funds in which they were investing and what arrangements were in place to monitor whether the capital buffers in place were sufficient.[164] The Bank of England's December 2019 Financial Stability Report noted that the survey had "confirmed that pension funds manage collateral to meet […] margin calls [and] use a variety of measures to assess potential collateral needs under stress."[165]

113. Andrew Bailey, Governor of the Bank of England, told the Treasury Select Committee that:

> I think we must hold our hand up at this point and say that, by looking at the 85%, the 15% remained relatively obscure, and the fact that this legal structure was sort of buried in there was also somewhat obscure.[166]

114. In a letter to us in October 2022, TPR said it did "not record in-depth data on the scale of collateral or leverage agreed to by DB schemes and we do not ask every scheme to provide this data."[167] Then Chief Executive, Charles Counsell, told us in December that:

> I think it is fair to say that we were not collecting systematic data around this before this happened. In retrospect, maybe we should have; certainly, going forward, we will.[168]

162 Bank of England, Financial Stability Report - December 2022, p97
163 Bank of England, Financial Stability Report, Bank of England, November 2018
164 TPR, DB Pension Scheme Leverage and Liquidity Survey, December 2019
165 Bank of England, Financial Stability Report. December 2019, p68
166 Oral evidence to the Treasury Select Committee 16 January 2023, Q307
167 Impact on DB schemes of movements in financial markets, Letter from Charles Counsell to Sir Stephen Timms, 10 October 2022
168 Q151

115. One result was that leverage grew over time in a way that, for the Bank of England, was "hard to spot."[169] Sarah Breeden of the Bank of England told us that the main information gap for managing systemic risk was:

> The complete absence of data on leverage in the sector…We do not have basic data, whether it is about the size of funds, the assets held, their exposure or leverage and how that associates with the scheme's growth assets. That data is just not routinely available and will need to be.[170]

116. Lane, Clark & Peacock told us that, through the annual scheme returns process, TPR had "the best dataset on how DB pension schemes are allocating their assets and how their assets perform in stressed environments." However, it was clear that this data was "lacking the information that really matters when it comes to LDI—namely reliable and up to date information on leverage. "[171]

117. Other witnesses told us they were concerned at the lack of transparency at the individual scheme level. Independent pensions consultant, John Ralfe, said the problem was "hidden leverage": you could not see what was going on by looking at the report and accounts of the sponsoring employer and could see only part of it in the pension scheme's report and accounts.[172] There was nothing on this in the Pension Protection Fund Purple Book (an annual report of data and analysis of the UK DB pensions landscape.)[173] The UK Shareholders' Association was concerned that the risk that schemes might be called on to supply additional capital to the LDI fund "was never spelled out in the accounts of companies that our members invest in, and that the risk of such falls was not accounted for in stress testing."[174]

Who needs to collect what data

118. Sarah Breeden told us that the FPC's view was that it was appropriate for micro-prudential and sectoral regulators, including TPR, to collect data from the schemes and firms they regulated. She acknowledged that the "benefits of additional data will need to be balanced against the burden to schemes and funds in providing this data."[175] The Investment Association said regulators should work together with industry to agree what was needed:

> The various regulators should work together with the pensions and investment management industries to define the necessary dataset and then ensure that between them, they have access to this information. Any information-gathering should be proportionate, decision-useful and not duplicated across regulators. As well as benefitting the industry through proportionate data requirements, a consistent set of data points will ensure there is no regulatory arbitrage between different regulators and regimes.[176]

169 Evidence to Treasury Select Committee 16 January 2023, Q275 [Andrew Bailey]
170 Q261
171 Lane Clark and Peacock (LDI0049)
172 Q3
173 Q18; Pension Protection Fund, The Purple Book
174 UK Shareholders' Association (LDI0013)
175 Correspondence with the Bank of England relating to Defined benefit pensions with LDI (follow up to evidence session)
176 The Investment Association (LDI0081)

119. The FPC said TPR would need the ability to employ effective monitoring tools and to enforce as appropriate in cases of non-compliance with this resilience level. It asked TPR to report back on how it intended to implement the recommendation (but did not specify a date by which this was expected).[177]

120. This built on a recommendation the FPC made in December 2022.[178] We wrote to TPR at that point, asking whether it had the information and powers it needed to meet the FPC's recommendations. The response from the then Chief Executive, Charles Counsell, indicated that it did not:

> Our normal approach to monitoring behaviour is either directly where schemes are in relationship supervision or through specific regulatory initiatives across a large number of schemes in a particular area. For schemes outside these groups, the information being collected on LDI is not sufficiently detailed for us to fully assess whether the guidance is being followed or any engagement is necessary with those schemes.[179]

121. Charles Counsell told us TPR was working to become much more of a data-led organisation but had a long way to go:

> About a year ago, I announced that we were putting in place a digital data and technology directorate, whose focus is to help us to become much more of a data-led organisation. We have a long way to go. Have I got a line of sight to all the funds that we need, if we are to be able to do that? Honestly, no, not at the moment. How we do this is complex. In a way, to really get to where you need to, you need something in real time. There is the question of whether that would be appropriate, given the burden it would place on schemes, but we are certainly a long way away from being able to do that.[180]

122. In January 2023, TPR explained that it was "actively considering how to expand our collection of data on LDI arrangements and consequent liquidity buffers." To do this, it needed to identify first the right combination of data to collect and then the appropriate channels and infrastructure through which to collect it. It was considering a requirement on schemes to notify it of a reduction in resilience below the recommended minimum:

> This may require an overhaul of our current data-sharing infrastructure (which is geared towards annual collection, and thus may not be suitable for these purposes), or collaboration with our regulatory partners (who may be better placed to collect information about systemic risks relevant beyond the pensions industry) or a system where schemes notify us where they are unable to maintain a minimum buffer level—this may be through the notifiable events process.[181]

177 Financial Policy Summary and Record of the Financial Policy Committee meeting on 23 March 2023, page 25
178 Bank of England, Financial Stability Report - December 2022
179 Correspondence with TPR on defined benefit schemes with LDI, January 2023
180 Q152
181 Correspondence with TPR on defined benefit schemes with LDI, January 2023

123. If it was to go down that route, it would encourage schemes to comply on a voluntary basis until legislation was in place.[182] Sarah Breeden told us that, from the Bank of England's perspective, notification would need to be "sufficiently early so that action can happen as a result of it."[183]

124. **TPR is working to become a more digitally enabled and data-led organisation but has a long way to go to achieve this. We support the Financial Policy Committee's recommendation that TPR should specify minimum levels of resilience for the LDI arrangements in which pension schemes may invest and work with other regulators to ensure these are maintained. TPR does not have the data to check whether its guidance is being followed.** ***DWP and TPR should report back to us by the end of October 2023 on how they plan to monitor whether LDI resilience is being maintained. They should also set out a timeline for TPR's commitment to become a more digitally enabled and data-led organisation, with plans to resource it.***

125. While real-time data is clearly important for monitoring resilience, we heard that requiring regular reporting of data could also play a role. The Government Actuary told us that, while the guidance issued by TPR on maintaining resilience in LDI was comprehensive, consideration might also be given to requiring disclosure, for example, in the annual report or investment strategy about their governance and management of investment and associated operational risks." Consideration might "also be given to requiring schemes to perform and report on the results of investment stress tests." Such requirements could be "very effective nudges to further embed good practice." Improved data would also help trustees to "appropriately challenge their advisers and LDI managers and to make judgements on the potential benefits of using LDI relative to the complexity and risks it can introduce."[184]

126. The Investment Association recommended that the various regulators work together with the pensions and investment management industries to "define the necessary dataset and then ensure that between them, they have access to this information." It suggested collecting data on:

> - DB pension asset allocation (growth and matching assets)
>
> - LDI strategies: aggregate value and composition of physical assets, derivative and repo exposures.
>
> - LDI reporting should be split by pooled funds and segregated portfolios
>
> - Headroom (yield increase) to asset exhaustion in collateral pools supporting LDI strategies.[185]

Sarah Breeden referred to the need for basic data on the size of LDI funds, the assets held, their exposure or leverage and how that associates with the scheme's growth assets.[186]

127. ***In addition to putting in place mechanisms to provide real-time warning of reductions in LDI resilience, the Department for Work and Pensions and The Pensions***

182 As above
183 Q263
184 Correspondence with the Government's Actuary Department about the LDI inquiry
185 The Investment Association (LDI0081)
186 Q261

Regulator should consult on whether introducing disclosure requirements on pension schemes relating the use of LDI through the annual report or investment statement, would help improve standards of governance. They should consult with stakeholders on the data it is appropriate to collect. We suggest that consideration is given to: the maximum leverage allowed in the LDI funds in which the scheme is invested; the type of LDI they invest in; compliance with minimum resilience levels; and data on the pension schemes' asset allocations, by growth and matching assets. If they conclude that requiring pensions schemes to report regularly on their use of LDI would place an undue burden on some schemes, TPR and DWP should explain the basis for allowing such schemes to continue to use leveraged LDI.

Managing systemic risks

128. The current responsibilities of the different regulators are that:

- TPR is responsible for regulating DB pension schemes. Its objectives include protecting pension benefits and the Pension Protection Fund;
- LDI funds are typically located overseas—Ireland or Luxembourg—under the oversight of the local regulator. The funds' risk management is overseen by an alternative investment fund manager (AIFM) who is approved by the regulator of that fund;
- The FCA is responsible for regulating Alternative Investment Fund Managers (AIFM) and portfolio managers where they undertake a regulated activity in the UK. In the context of LDI strategies, typically only the portfolio manager is located in the UK and under the FCA's regulatory remit;
- UK banks which lend to LDI funds or their derivative counterparties are regulated by the FCA for conduct issues, and by the Prudential Regulation Authority (PRA) for prudential matters; and
- The Bank of England, and in particular the Financial Policy Committee, has an overarching mandate in relation to financial stability.[187]

129. The Bank of England's Financial Policy Committee concluded that assessing and monitoring risks in the LDI fund sector had been "considerably hampered" by a lack of data, "exacerbated by a complex and fragmented regulatory regime."[188]

130. We heard concerns about gaps in the oversight of systemic risk, in particular. John Ralfe told us that "everybody thinks somebody else is lying awake at night worrying about it."[189] David Blake made the point that pension funding was "complex and multi-disciplinary in nature," involving experts in their own fields who had limited knowledge and understanding of others. The same applied to regulation, where there were multiple regulators. No-one had overall oversight of the systemic implications. Better co-ordination was needed, starting with better information.[190]

187 Financial Conduct Authority (LDI0054)
188 Bank of England Financial Stability Report, December 2022
189 Q33
190 Prof David Blake (LDI0053)

131. Toby Nangle said there was not an "appropriate level of system-wide oversight of leverage used by pension funds." Referring to the work done by the Bank of England and TPR in 2018 and 2019, he said it was "not clear whether the notion that large numbers of small schemes could potentially become triggered by the same market stimuli to move in a near-identical way was considered." Furthermore, it was not clear whether this risk (to financial stability) was one for TPR or the Bank of England.[191]

132. The Bank of England has acknowledged that the work done at that point concentrated on large schemes, whereas the most acute problems in September 2022 were experienced by smaller schemes invested in pooled funds.[192] The conclusion, according to the then TPR Chief Executive, Charles Counsell, was that the system was robust to reasonably plausible movements in gilt yields (a movement of 100 basis points). He said that what happened at the end of September went "way beyond that."[193] Sarah Breeden told us that the Bank had judged the system resilient based on the test applied at the time. In practice, there had been other factors: "the shock was bigger. The liquidity buffers that had been used through the summer and the pooled funds created a dynamic."[194]

133. What appears to have been underestimated is the role LDI funds played in increasing gilt yields further once they started to rise. David Blake argued that "leveraged LDI products were responsible for the systemic crisis" in September 2022. Although the Bank of England decision to raise interest rates on 21 September and the 'mini-Budget' on 22 September, led to a small increase in interest rates, the "subsequent spike in rates was triggered by leveraged LDI providers using gilt repos and interest rate swaps as part of their hedging strategy." Once you had big trades in an illiquid market, this was the inevitable consequence. Another factor was excess leverage:

> Throughout history, all banking crises are caused by excess leverage and now we have our sleepy little pension funds classified as shadow banks and they have been responsible for this particular issue as a result of these LDIs.[195]

Stephen Pugh, an adviser to trustees, gave an example, that may serve to illustrate a gap in oversight of systemic risk. He contacted TPR to ask how inflation risk was protected given that there was a greater supply of inflation swaps than of index linked gilts. The response from TPR was that it recognised the situation he described—that there "could be unmatched positions and thus potential instability in the financial system"—but that its guidance to schemes was "written on the basis that our regulatory colleagues at the Bank of England will be successful in their remit of maintaining monetary and financial stability in the UK".[196]

134. Toby Nangle said there was a structural problem, describing LDI funds as a "tuna in a paddling pool: any swivelling of the tail will destroy the whole structure":

> If they all invested in the same way, they can unsettle the market in a way that is unavoidable, simply because the size of them is so large that there is no counterbalance. They can't be counterbalanced. There are not enough gilts out there.[197]

191 Toby Nangle (Independent Economic and Markets Analyst) (LDI0043)
192 Evidence to Treasury Select Committee 16 January 2023, Q307 [Andrew Bailey]
193 Q128 and Q131
194 Q241
195 Q213
196 Mr Stephen Pugh (Trustee Pension Adviser at Adnams PLC) (LDI0001)
197 Q213

135. The Investment Association argued that "concentrated ownership of long-dated and index-linked gilts by DB schemes most likely did exacerbate the issues caused by the September 23rd fiscal event."[198]

136. Richard Britton, writing in a personal capacity, said that "extreme concentration of ownership of long-dated index-linked gilts" had been identified at least as long ago as 2016 and asked why "no-one in authority was paying attention to the growing systemic risk."[199] Some external commentators had been pointing to these risks. For example, in 2017, Next plc reported concerns that higher interest rates could lead to liquidity issues for LDI funds that may lead to forced sales of a range of assets.[200] Dr Con Keating and Professor Iain Clacher told us they had been talking about the "endogenous risk spiral" in LDI for seven years.[201] In June 2022, they wrote that "as interest rates rise and more and more collateral has to be posted, this raises the question: will there be a major pension fund failure?"[202]

137. **Given the extent of leverage and the concentration of DB investments, more should have been done to follow up on the risks identified in 2018 by the Bank of England.** ***Collecting better data on LDI is part of what is needed to improve management of systemic risks in future. It will also be essential that DWP and TPR work with other regulators and the Bank of England to analyse its implications. DWP and TPR should report back by the end of October 2023 on how they intend to ensure this happens.***

Requiring TPR to take account of financial stability

138. The FPC recommended that TPR should have the remit to take into account financial stability considerations:

> TPR should have the remit to take into account financial stability considerations on a continuing basis. This might be achieved, for example, by including a requirement to have regard to financial stability in its objectives, which should be given equal weight alongside other factors to which TPR is required to have regard. The FPC noted that in order to achieve this, TPR would need appropriate capacity and capability.[203]

139. The Pensions Minister, Laura Trott MBE MP, told us that the Government was looking into this.[204] Economic Secretary to the Treasury, Andrew Griffith MP, said TPR needed to become part of the framework of managing non-bank financial risk:

> The contrast I would draw to bring that to life is the very tight working between the PRA, the FCA and the Bank of England, so without prejudicing what currently happens or what the Minister for Pensions decides, the more TPR can be part of those frameworks and very closely aligned as we collectively seek to manage the non-bank financial risk, the better.[205]

198 The Investment Association (LDI0081)
199 Richard Britton (LDI0074)
200 Sir Jon Cunliffe, letter to Treasury Select Committee, 5 October 2022; Next chief Simon Wolfson says he flagged LDI concerns to Bank of England, Financial Times, 29 September 2022 (£)
201 Q7
202 Risks from leverage: how did a small corner of the pensions industry threaten financial stability? - speech by Sarah Breeden, 7 November 2022
203 Financial Policy Summary and Record, 29 March 2023
204 Correspondence with the Bank of England relating to Defined benefit pensions with LDI (follow up to evidence session)
205 Q302

140. **When the LDI episode arose, the Bank of England had to intervene to prevent financial instability. The regulatory framework was complex and fragmentary, and not fit for purpose when it came to managing systemic risks. The Financial Policy Committee recommended that TPR should have the remit to take into account financial stability considerations. Given the events of September 2022, we tend to agree, although it depends on what it means. One possible model would be for TPR to be a source of key information, able to proactively identify potential risks in the sector and then work with other regulators to analyse the implications.** ***DWP should report back to us by the end of January 2024 on how it proposes to take forward the FPC's recommendation that TPR be given a remit to take account of financial stability considerations and how it plans to ensure that TPR has the capacity and capability to deliver on this.***

New scheme funding code

141. The Government legislated for a new approach to pension scheme funding in the Pension Schemes Act 2021, requiring schemes to determine a funding and investment strategy, supported by a written statement setting out whether they were on track and how they proposed to mitigate key risks. It strengthened TPR's power to take action if trustees failed to comply with their new duties.[206] The Government's motivation was that best practice was not universal. Its intention was to have "better, and clearer funding standards, but not to move away from the strengths of a flexible scheme specific approach."[207]

142. In March 2020, TPR consulted on a revised DB funding code of practice. It proposed a 'fast track' approach for trustees who could demonstrate that their valuation met the guidelines, and for those who could not, a 'bespoke approach.'[208] A key factor in the fast track approach would be a scheme's maturity.[209] A scheme that was "significantly mature" should take a "low dependency" approach, which meant being in a position where it could provide member benefits with very limited future support from the employer.[210] It should also have investments that were highly resilient to risk: for example, with the majority of assets invested in gilts and LDI, and only a small proportion in growth assets.[211] The rationale was that a mature scheme that was underfunded had limited time to improve its position through investment performance.[212]

143. In July 2022, DWP consulted on draft regulations setting out the approach trustees would need to take in relation to scheme funding:

> a key principle the trustees or managers must follow when determining or revising their scheme's funding and investment strategy is a requirement for schemes to be in, at least, a state of low dependency on their sponsoring employer by the time they are significantly mature. This would require scheme assets to be invested in a low dependency investment allocation

206 Pension Schemes Act 2021, s123 and Sch 10
207 Consultation document: The draft Occupational Pension Schemes (Funding and Investment Strategy and Amendment) Regulations 2023, DWP, Updated 29 July 2022
208 Defined benefit funding code of practice consultation, TPR, March 2020
209 Factors determining a scheme's maturity include the length of time it expects to continue paying out pension benefits and its cashflow (the balance between any contributions from active scheme members and payments out to pensioners. Defined benefit funding code of practice consultation, TPR, March 2020, para 260–8
210 Defined benefit funding code of practice consultation, TPR, March 2020, para 100, 238 and 273
211 Defined benefit funding code of practice consultation, TPR, March 2020, para 259
212 Defined benefit funding Code of Practice consultation, March 2020, para 160–2

> and be fully funded on a low dependency funding basis.[213]

It aimed to ensure that the regulations worked in a way that did:

> not prevent appropriate open schemes from investing in riskier investments when there are potentially higher returns, as long as the risks being taken can be supported and members' benefits are effectively protected.[214]

144. In response to our first call for evidence, some witnesses expressed concern that the effect of the draft regulations could give rise to systemic risks and exacerbate existing trends for scheme closures and difficulties supporting the Government's growth agenda.[215] The PLSA called on TPR to consider the 'lessons learnt' from the events of September, in particular relating to the "risk of encouraging herding behaviour, which could exacerbate systemic risks."[216] The Association of Consulting Actuaries also shared concerns about herding.[217]

145. We wrote to TPR on 7 December, asking it to postpone the launch of its consultation on the new funding code until we had reported. However, TPR said this would push back its commencement from October 2023 to October 2024. It would consider a further consultation if responses suggested that was needed.[218] The then Executive Director of Regulatory Policy at TPR, David Fairs, told us they had looked at elements of the Code in light of the events of September and made changes, strengthening the guidance on governance and operational management, buffer statements and stress test.[219] TPR launched its further consultation and a draft of its proposed funding code in December 2022.[220] On 27 April 2023, it announced that it now expected the new regulations and Funding Code to come into force in April 2024.[221]

146. Responses to our second call for evidence, issued in February 2023, suggested that concerns had not been dispelled by the new consultation and proposed Code.[222] Independent trustee firm, Dalriada, said that "investment behaviour was heavily influenced by the prevailing funding regime" and that it was "clear that gilts-based funding measures are going to continue to be favoured":

> It is also quite clear that once a pension scheme has attained a level of funding that is deemed satisfactory in terms of the 'fast track' principles that it will be deemed most prudent to set a relatively high level of hedging against that measure.[223]

213 Consultation document: The draft Occupational Pension Schemes (Funding and Investment Strategy and Amendment) Regulations 2023, Updated 29 July 2022
214 Consultation document: The draft Occupational Pension Schemes (Funding and Investment Strategy and Amendment) Regulations 2023, Updated 29 July 2022
215 LDI0012 [Railway Pension Scheme Trustee Corporation Ltd]
216 LDI0035 [PLSA]
217 LDI0047 [TPR]
218 Correspondence with The Pensions Regulator (defined benefit pensions with Liability Driven Investments) December 2022
219 Q177
220 Consultation published by TPR on new DB funding code, Friday 16 December 2022
221 Annual Funding Statement 2023, TPR, 27 April 2023
222 Call for evidence: Defined benefit pensions with liability driven investments, Work and Pensions Committee, February 2023
223 Dalriada Trustees Limited (LDI0073)

147. Dr Keating and Professor Clacher were concerned that people were being asked to reach a judgement on complex matters without seeing the final text of the regulations and in the absence of "any meaningful impact assessments" or any reliable estimate of the costs of the "overall cost of the crisis." They said it appeared that TPR had "learned very little as to the economic consequences of the past decade and more of their regulatory emphasis on funding over covenant, nor have they learned anything from the resultant crisis in LDI."[224]

148. XPS Pensions Group called for TPR to be less specific over how to meet the legal requirements for a "low dependence investment allocation", and to allow scope for other investment approaches, while managing overall risk levels within defined bounds. They said this "would allow trade-offs to be made across different markets avoiding price insensitive demand in a concentrated market that could lead to bubbles." It was concerned that, if unamended, the proposals would result in mature schemes in deficit being required to match a high proportion of their liabilities and thereby to employ more leverage than they were comfortable with.[225] Pensions Minister, Laura Trott MBE MP, told us that the Government wanted to take account of our recommendations before bringing forward the regulations.[226]

149. **There are two fundamental concerns with the new funding regime. One is that the approach is not sufficient to allow open schemes to thrive. This is an issue to which we will return in our wider inquiry on defined benefit pension schemes. The second is that it will result in greater 'herding' in investment decisions.** ***In light of the FPC's recommendation for TPR to take account of financial stability, DWP and TPR should halt their existing plans for a new funding regime, at least until it has produced a full impact assessment for the proposals, including the impact on financial stability and on open DB schemes.***

Conclusion

150. **The September 2022 episode demonstrated the potential for the investment strategies used by DB schemes to give rise to systemic risks. While action has been taken to address some of the weaknesses which were exposed in this episode, there is still more work to be done. In this Report we have therefore set out some key areas for change that should be taken forward principally by DWP and TPR. We look forward to seeing their responses to our proposals.**

224 Professor Iain Clacher (Professor of Pensions and Finance at University of Leeds); Dr Con Keating (Chair of the Bond Commission at European Federation of Financial Analysts Societies) (LDI0077)
225 XPS Pensions Group (LDI0079)
226 Q304

Annex: Glossary

Technical terms used throughout this Report

- Basis points (bps)—one hundredth of a percentage point (0.01pp). So, 300 basis points equals 3%.
- Bond—a debt instrument whereby the issuer (which can be a company or government) has borrowed a sum of money (the principal) in return for which they pay the bond holder interest over the life of the bond before repaying the principal at its maturity.
- Collateral—an asset provided as security for a debt.
- Counterparty—a party to a transaction. In the LDI context, the counterparties will typically be a pension scheme and a bank.
- Defined benefit (DB) pension scheme—a pension scheme that provides a defined income on retirement, based on salary and length of service.
- Derivative—an instrument or contract, the value of which is derived from the price movement of another asset or instrument.
- Discount rate—the interest rate used to determine the estimated present value of future liabilities (the stream of pension payments due to be paid out in the future).
- Equity—the value of an investor's stake in a company.
- Exposure—the amount an investor stands to lose in an investment if it fails.
- Funding level—the relationship between a DB pension scheme's assets and liabilities at a specified date (often expressed as a 'funding ratio').
- Gilt—a bond issued by the UK Government. Pension funds often invest in gilts issued with a maturity date well in the future (for example 30 years) to match their long-term obligations.
- Gilt yield—the return an investor would make if it bought the bond at its current market price and held it to maturity
- Gilt repo—short for a gilt sale and repurchase agreement, i.e., an agreement to sell gilts to a counterparty and simultaneously agreeing to buy back these gilts on a particular date in the future and at a specified price.
- Hedge—to undertake transactions in a way that aims to offset the risk of price changes in another asset.
- LDI fund—a fund managed by an asset manager which delivers liability driven investment strategies for DB pension schemes.
- Leveraged fund—a fund that has greater exposure to assets than the value of its capital.

- Liabilities—the future pay-outs resulting from pension commitments made by a pension scheme's sponsoring employer.
- Liability cashflows—a schedule of future payments that the pension scheme is expected to make over its lifetime.
- Liquidity risk—the risk that a company or individual will not have the cash needed to meet its financial obligations as they fall due.
- Pension Protection Fund (PPF)—the organisation set up under the Pensions Act 2004 to provide compensation to members of DB schemes that wind up underfunded on the insolvency of the sponsoring employer.
- Pooled LDI fund—a pot of assets managed for multiple pension fund clients who have limited liability in the face of losses.
- Present value—today's value of a future liability, calculated by discounting the future liability at an appropriate rate of interest.
- Segregated LDI solution—the LDI strategy followed by a single investor tailored to the investor's specific requirements.
- Swap— an arrangement by which one type of income stream is swapped for another (for example, an income stream with a variable rate of interest can be swapped for one with a fixed rate of interest).
- The Pensions Regulator (TPR)—the regulator of workplace pensions set up under the Pensions Act 2004, with statutory objectives which include protecting the PPF.

Conclusions and recommendations

How and why LDI developed

1. Both accounting standards and pension scheme funding requirements contributed to the development of LDI. The requirement to calculate a present value of liabilities using a market-based discount rate resulted in liability levels being very sensitive to changes in interest rates. LDI was an attempt to manage the resulting volatility in funding levels. While this may be appropriate for mature schemes, it is not obviously so for open schemes, for example. One outcome has been a shift in DB scheme investments from equities to bonds—reducing an important source of capital for the UK economy. This must have contributed to recent difficulties in securing investment and growth in the economy. Whether more flexibility could be allowed in the calculation of liabilities is a complex issue to which we will return in our wider inquiry on DB pension schemes. (Paragraph 34)

2. A second motivation for LDI has been The Pensions Regulator's approach to regulating scheme funding in line with its statutory objectives to protect member benefits and the Pension Protection Fund. We will return to the question of what is needed for open DB schemes to thrive in our inquiry on DB schemes. (Paragraph 41)

3. The European Directive on the Institute for Occupational Retirement Provision (IORP) contained restrictions on borrowing. In 2005, the UK Government took the decision to transpose it into law in a way that allowed existing investment practices, including the use of derivatives and gilt repo, to continue. Supporters of leveraged LDI argue that it helped improve scheme funding levels. However, it introduced new risks, making pension funding levels very sensitive to changes in gilt yields. These risks needed to be understood, with adequate arrangements in place throughout the investment chain to manage them. Deficiencies in this became evident in the LDI episode in September 2022. (Paragraph 46)

The LDI episode

4. Sharp rises in gilt yields which LDI funds lacked the resilience to manage, led to the Bank of England having to intervene in September 2022 to protect financial stability. DB pension scheme investments must not be allowed to jeopardise the UK economy again. (Paragraph 54)

5. According to TPR the majority of pension schemes emerged from 2022 with improved funding levels. However, external analysis raises questions as to how confident we can be about these improvements. We are concerned that some schemes had their funding levels negatively affected as a result of the events of September 2022. In addition, the aggregate value of scheme assets, according to the PPF, was £400 billion less at the end of 2022 than it was at the beginning. It is important that we understand what the impact was and what led to these results so that the system can work better in the future. *DWP should work with TPR and the PPF to produce, by the end of 2023, a detailed account of the impact on pension schemes of the LDI episode. This should:*

i) *look at the impact on funding levels, detailing how the value of their assets and liabilities changed, showing the results disaggregated by whether the fund used LDI and, if so, whether in a pooled, segregated or bespoke arrangement; and*

ii) *include analysis of the factors which contributed to scheme funding improving or deteriorating, including the role played by LDI strategies.* (Paragraph 65)

Future use of LDI

6. The objective of the latest Financial Policy Committee (FPC) guidance, to protect financial stability is welcome. We look forward to seeing the results of the Bank of England's planned stress tests, made more pressing by recent rises in gilt yields. (Paragraph 72)

7. Leverage may have worked relatively well for pension schemes during a long period of low and volatile interest rates. However, it exposed them to additional liquidity risk and requirements, as collateral demands can change over short periods when interest rates change. With the imposition of much higher capital buffers, the cost of LDI has risen. For schemes in deficit who use these strategies, this may mean it takes longer to reach their long-term objective. Trustee boards will continue to have complex decisions to make about whether and how to use LDI. The experience of September 2022 indicates some will face challenges doing so. *TPR should require trustees to report certain data on their use of LDI and should develop a strategy for engaging with schemes based on the results more closely.* (Paragraph 81)

Governance of LDI risks

8. TPR encouraged pension scheme trustees to use leveraged LDI, which involves complex financial instruments. It continued to rely on them as the first line of defence to manage the risks, despite its longstanding concerns about governance standards in some schemes, particularly smaller ones which do not benefit from economies of scale. As the regulator, with responsibility for standards of governance in workplace pension schemes, TPR was the second line of defence. It issued guidance on managing the risks of LDI but was not able to monitor whether that was being followed. It should have focused earlier on the risks of encouraging trustees to use such complex financial products and worked with DWP to consider what further action was needed to mitigate the risk. (Paragraph 91)

9. TPR told us that scheme consolidation would help improve scheme governance, by reducing the number of small schemes. However, consolidation needs to be into a safe vehicle, which requires legislation. DWP consulted on DB consolidation in 2018 but has still not responded to this. Another long-standing question has been whether to require some form of qualification for at least some trustees. *As a first step to improving governance, DWP should respond to its consultation on DB consolidation no later than the end of October 2023. It should then work with TPR as a priority to improve the regulation of trustees and standards of governance, as it has said it intends to do. Given the time it will take to consult on, legislate for, and*

implement measures to improve governance, DWP should consider whether the use of LDI could be restricted, for example, based on a test related to a trustee boards' ability to understand and manage the risks involved. (Paragraph 99)

10. We heard, including from the FCA itself, that in some cases investment consultants were giving standardised advice, rather than thinking through what was best for the individual pension fund. Given the complexity of the decisions trustees are required to make, this is a concern. *The Government should bring forward plans for investment consultants to be brought within the FCA's regulatory perimeter before the end of this Parliament.* (Paragraph 105)

11. To play their part in monitoring LDI, trustees need timely and accurate information from LDI funds and advisers. We welcome the fact that the FCA issued guidance on this in April. *TPR should work with the FCA to review whether the guidance the FCA issued to LDI funds in April has been implemented effectively and is providing trustees with the simple mechanism for monitoring LDI that the FPC said was needed.* (Paragraph 108)

Managing system risks

12. TPR is working to become a more digitally enabled and data-led organisation but has a long way to go to achieve this. We support the Financial Policy Committee's recommendation that TPR should specify minimum levels of resilience for the LDI arrangements in which pension schemes may invest and work with other regulators to ensure these are maintained. TPR does not have the data to check whether its guidance is being followed. *DWP and TPR should report back to us by the end of October 2023 on how they plan to monitor whether LDI resilience is being maintained. They should also set out a timeline for TPR's commitment to become a more digitally enabled and data-led organisation, with plans to resource it.* (Paragraph 124)

13. *In addition to putting in place mechanisms to provide real-time warning of reductions in LDI resilience, the Department for Work and Pensions and The Pensions Regulator should consult on whether introducing disclosure requirements on pension schemes relating the use of LDI through the annual report or investment statement, would help improve standards of governance. They should consult with stakeholders on the data it is appropriate to collect. We suggest that consideration is given to: the maximum leverage allowed in the LDI funds in which the scheme is invested; the type of LDI they invest in; compliance with minimum resilience levels; and data on the pension schemes' asset allocations, by growth and matching assets. If they conclude that requiring pensions schemes to report regularly on their use of LDI would place an undue burden on some schemes, TPR and DWP should explain the basis for allowing such schemes to continue to use leveraged LDI.* (Paragraph 127)

14. Given the extent of leverage and the concentration of DB investments, more should have been done to follow up on the risks identified in 2018 by the Bank of England. *Collecting better data on LDI is part of what is needed to improve management of systemic risks in future. It will also be essential that DWP and TPR work with other regulators and the Bank of England to analyse its implications. DWP and TPR should report back by the end of October 2023 on how they intend to ensure this happens.* (Paragraph 137)

15. When the LDI episode arose, the Bank of England had to intervene to prevent financial instability. The regulatory framework was complex and fragmentary, and not fit for purpose when it came to managing systemic risks. The Financial Policy Committee recommended that TPR should have the remit to take into account financial stability considerations. Given the events of September 2022, we tend to agree, although it depends on what it means. One possible model would be for TPR to be a source of key information, able to proactively identify potential risks in the sector and then work with other regulators to analyse the implications. *DWP should report back to us by the end of January 2024 on how it proposes to take forward the FPC's recommendation that TPR be given a remit to take account of financial stability considerations and how it plans to ensure that TPR has the capacity and capability to deliver on this.* (Paragraph 140)

16. There are two fundamental concerns with the new funding regime. One is that the approach is not sufficient to allow open schemes to thrive. This is an issue to which we will return in our wider inquiry on defined benefit pension schemes. The second is that it will result in greater 'herding' in investment decisions. *In light of the FPC's recommendation for TPR to take account of financial stability, DWP and TPR should halt their existing plans for a new funding regime, at least until it has produced a full impact assessment for the proposals, including the impact on financial stability and on open DB schemes.* (Paragraph 149)

17. The September 2022 episode demonstrated the potential for the investment strategies used by DB schemes to give rise to systemic risks. While action has been taken to address some of the weaknesses which were exposed in this episode, there is still more work to be done. In this Report we have therefore set out some key areas for change that should be taken forward principally by DWP and TPR. We look forward to seeing their responses to our proposals. (Paragraph 150)

Formal minutes

Wednesday 14 June 2023

Members present

Sir Stephen Timms, in the Chair

Debbie Abrahams

Siobhan Baillie

David Linden

Steve McCabe

Nigel Mills

Selaine Saxby

Sir Desmond Swayne

Defined benefit pensions with Liability Driven Investments

Draft Report (*Defined benefit pensions with Liability Driven Investments*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 150 read and agreed to.

Annex and Summary agreed to.

Resolved, That the Report be the Seventh Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available (Standing Order No. 134).

Adjournment

Adjourned till Wednesday 21 June 2023 at 9.15 am

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the inquiry publications page of the Committee's website.

Wednesday 23 November 2022

Mr Henry Tapper, Executive Chair, Agewage; **John Ralfe**, Independent Consultant, John Ralfe Consulting; **Professor Iain Clacher**, Professor, Leeds Business School; **Dr Con Keating**, Head of Research, Brighton Rock Group Q1–36

Mr Steven Taylor, Chair, Association of Consulting Actuaries; **Leah Evans**, Chair of IFoA Pensions Board, Institute and Faculty of Actuaries; **Joe Dabrowski**, Deputy Director, Policy, Pension and Lifetime Savings Association; **Jonathan Camfield**, Partner, Lane, Clark & Peacock Q35–64

Wednesday 7 December 2022

David Fogarty, Director, Dalriada Trustees Limited; **Harus Rai**, Chair, Association of Professional Pension Trustees; **Rod Goodyer**, Head of Investment Consulting, Barnett Waddingham LLP Q65–96

Abdallah Nauphal, CEO, Insight Investment; **Kerrin Rosenberg**, CEO, Cardano Investment; **Charles Prideaux**, Group Head of Strategy and Solutions and Chief Executive, Schroders Investment Management Ltd; **Dr Jonathan Lipkin**, Director of Policy, Strategy and Innovation, Investment Association Q97–122

Wednesday 14 December 2022

Oliver Morley, Chief Executive, Pension Protection Fund; **Evan Guppy**, Head of LDI and Credit, Pension Protection Fund; **Charles Counsell**, Chief Executive, The Pensions Regulator; **David Fairs**, Executive Director of Regulatory Policy, Analysis and Advice, The Pensions Regulator Q123–185

Nikhil Rathi, Chief Executive, Financial Conduct Authority; **Simon Walls**, Wholesale Director, Sell Side, Financial Conduct Authority Q186–208

Wednesday 1 February 2023

Tim Bush, Head of Governance and Financial Analysis, Pensions and Investment Research Consultants; **Professor David Blake**, Director, Pensions Institute, Bayes Business School; **Toby Nangle**, Independent Economic and Financial Markets Commentator Q209–234

Sarah Breeden, Executive Director, Financial Stability Strategy and Risk and member of the Financial Policy Committee, Bank of England Q235–276

Wednesday 22 March 2023

Laura Trott MP, Minister for Pensions, Department for Work and Pensions; **Tom Josephs**, Director, Private Pensions, Department for Work and Pensions; **Andrew Griffith MP**, Economic Secretary to the Treasury, HM Treasury; **Lowri Khan**, Director of Financial Stability, HM Treasury Q277–308

Published written evidence

The following written evidence was received and can be viewed on the inquiry publications page of the Committee's website.

LDI numbers are generated by the evidence processing system and so may not be complete.

1 AJ Bell (LDI0030)

2 Agewage (LDI0007)

3 Aon (LDI0025)

4 Ario Advisory (LDI0010)

5 Association of British Insurers (LDI0039) and (LDI0083)

6 Association of Consulting Actuaries (LDI0026)

7 Association of Professional Pension Trustees (LDI0078) and (LDI0027)

8 BT Pension Scheme Management (LDI0037)

9 Barnett Waddingham LLP (LDI0036)

10 Berkhamsted, Baroness Bowles of (LDI0060)

11 BlackRock (LDI0085)

12 Blake, Prof David (LDI0053) and (LDI0067)

13 Britton, Richard (LDI0074) and (LDI0005)

14 Brown, Mr Jeffrey (LDI0012)

15 Bush, Tim (Head of Governance and Financial Analysis, Pensions and Investment Research Consultants (PIRC)) (LDI0069)

16 Camfield, Jonathan (FIA Partner, Lane Clark and Peacock) (LDI0068), (LDI0023) and (LDI0050)

17 Cardano (LDI0061), (LDI0034) and (LDI0072)

18 Clacher, Professor Iain (Professor of Pensions and Finance, University of Leeds); and Dr Con Keating (Chair of the Bond Commission , European Federation of Financial Analysts Societies) (LDI0077), (LDI0018) and (LDI0056)

19 Columbia Threadneedle Investments (LDI0086) and (LDI0033)

20 Curtis, Rob (LDI0064)

21 DALBAR, Inc. (LDI0009)

22 Dalriada Trustees Limited (LDI0024)

23 Davies, Mr Mark; and Mr Masroor Ahmad (LDI0021)

24 Dixon International Group (LDI0055)

25 Eumaeus (LDI0002)

26 Financial Conduct Authority (LDI0054)

27 Hymans Robertson (LDI0032)

28 Insight Investment (LDI0076) and (LDI0029)

29 John Ralfe Consulting (LDI0020), (LDI0059), (LDI0051), (LDI0065) and (LDI0071)

30 Lane Clark and Peacock (LDI0049)

31 Legal & General Group Plc (LDI0075)

32 Limited, Dalriada Trustees (LDI0073)

33 Macpherson, Andrew (LDI0003)

34 Malcolm-Brown, Charles (Managing Director, Dixon International Group Ltd) (LDI0070)

35 Nangle, Toby (Economic and Markets Analyst, Independent) (LDI0043)

36 Pension Insurance Corporation plc (LDI0087)

37 Pension Protection Fund (LDI0031) and (LDI0088)

38 Pensions and Investment Research Consultants (PIRC) (LDI0063)

39 Pensions and Lifetime Savings Association (LDI0035)

40 Pugh, Mr Stephen (Trustee Pension Adviser, Adnams PLC) (LDI0001)

41 Railways Pension Trustee Company Limited (RPTCL) (LDI0015)

42 SOCial ECONomic RESearch, London and Frankfurt (LDI0052) and (LDI0008)

43 Schroders (LDI0041) and (LDI0082)

44 The 100 Group Pensions Committee (LDI0062)

45 The Institute and Faculty of Actuaries (LDI0046)

46 The Investment Association (LDI0081) and (LDI0028)

47 The Pensions Regulator (LDI0047)

48 Trade Union Congress (TUC) (LDI0048)

49 UK Shareholders' Association (LDI0013)

50 Vedanta Hedging Ltd (LDI0022)

51 WTW (LDI0084) and (LDI0038)

52 Willes, Mr Simon (Director, IRM Models Limited) (LDI0066) and (LDI0014)

53 XPS Pensions Group (LDI0079) and (LDI0040)

List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the publications page of the Committee's website.

Session 2022–23

Number	Title	Reference
1st	The appointment of Dominic Harris as the Pensions Ombudsman and the Pension Protection Fund Ombudsman	HC 465
2nd	The cost of living	HC 129
3rd	Protecting pension savers – five years on from the pension freedoms: Saving for later life	HC 126
4th	Universal Credit and childcare costs	HC 127
5th	Health assessments for benefits	HC 128
6th	Children in poverty: Child Maintenance Service	HC 272
1st Special	Children in poverty: No recourse to public funds: Government Response	HC 328
2nd Special	The Health and Safety Executive's approach to asbestos management: Government Response to the Committee's Sixth Report of Session 2021–22	HC 633
3rd Special	The cost of living: Government Response to the Committee's Second Report of Session 2022–23	HC 671
4th Special	Protecting pension savers—five years on from the pension freedoms: Saving for later life: Government, Financial Conduct Authority and Money and Pensions Service Responses to the Committee's Third Report of Session 2022–23	HC 1057
5th Special	Universal Credit and childcare costs: Government Response to the Committee's Fourth Report of Session 2022–23	HC 1266

Session 2021–22

Number	**Title**	**Reference**
1st	DWP's preparations for changes in the world of work	HC 216
2nd	Disability employment gap	HC 189
3rd	Children in poverty: Measurement and targets	HC 188
4th	Pension stewardship and COP26	HC 238
5th	Protecting pension savers—five years on from the Pension Freedoms: Accessing pension savings	HC 237
6th	The Health and Safety Executive's approach to asbestos management	HC 560

Number	Title	Reference
7th	Children in poverty: No recourse to public funds	HC 603

Session 2019–21

Number	Title	Reference
1st	DWP's response to the coronavirus outbreak	HC 178
2nd	The appointment of Dr Stephen Brien as the Chair of the Social Security Advisory Committee	HC 733
3rd	Universal Credit: the wait for a first payment	HC 204
4th	The temporary increase in Universal Credit and Working Tax Credit	HC 1193
5th	Protecting pension savers—five years on from the pension freedoms: Pension scams	HC 648
6th	The appointment of Sarah Smart as Chair of the Pensions Regulator	HC 1358