Statistical bulletin

Funded occupational pension schemes in the UK: April to September 2023

Financial Survey of Pension Schemes (FSPS) results including membership, income and expenditure, assets and liabilities of pension schemes.

Contact:
Financial Data Sources
financial.inquiries@ons.gov.uk
+44 1633 456249

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19 September 2024

Notice

21 March 2024

The frequency of this release has been changed from quarterly to every six months. Each statistical bulletin now publishes new estimates for two quarters. This decision gives us the opportunity to further develop the analysis of our data so that we continue to provide users with high-quality and relevant data and analysis. Please contact financial.inquiries@ons.gov.uk with any questions.

Table of contents

1 . Main points

- The market value of private sector defined benefit and hybrid pension schemes fell by £105 billion (9%) between 31 March and 30 September 2023, driven by falls in pooled investment vehicles, holdings of central government bonds, and cash and cash equivalents.

- The funding position of pension schemes depends on both the market value of their assets and the estimated present value of their future obligations, while the latter is not covered in this bulletin, it generally falls when gilt yields increase, as seen between 31 March and 30 September 2023.

- Private sector defined benefit and hybrid pension scheme deficit reduction contributions, which have been smaller since Quarter 2 (Apr to June) 2022, fell to their lowest level in the published time series in Quarter 3 (July to Sept) 2023, which may suggest these pension schemes required fewer contributions to make up for funding level shortfalls.

- Private sector pension scheme direct holdings of central government bonds and cash and cash equivalents fell by £38 billion (10%) and £9 billion (13%) respectively, between 31 March and 30 September 2023.

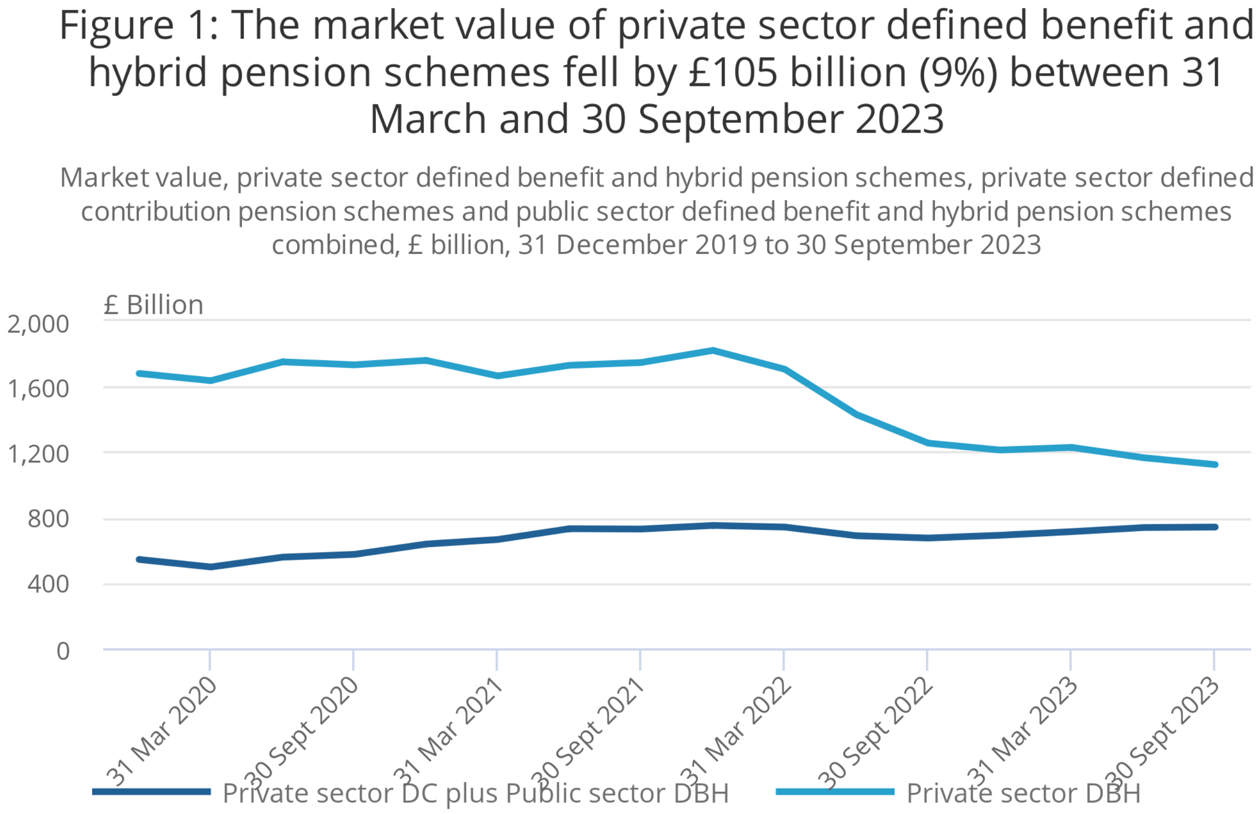
- Private sector d---efined benefit and hybrid pension scheme liability driven investment pooled holdings fell by £35 billion (20%) between 31 March and 30 September 2023.

2 . The market value of UK funded occupational pension schemes

The market value of pension schemes includes all assets, the net value of derivative contracts that schemes have invested in, and liabilities other than pension benefits owed to members.

Figure 1: The market value of private sector defined benefit and hybrid pension schemes fell by £105 billion (9%) between 31 March and 30 September 2023

Market value, private sector defined benefit and hybrid pension schemes, private sector defined contribution pension schemes and public sector defined benefit and hybrid pension schemes combined, £ billion, 31 December 2019 to 30 September 2023



Source: Financial Survey of Pension Schemes from the Office for National Statistics

Notes:

1. Private sector DBH equals private sector defined benefit and hybrid pension schemes.

2. Private sector DC plus public sector DBH equals private sector defined contribution pension schemes and public sector defined benefit and hybrid pension schemes combined.

Between 31 March and 30 September 2023, the market value of private sector defined benefit and hybrid (DBH) pension schemes fell by £105 billion (9%) from £1,228 billion to £1,123 billon, while the market value of private sector defined contribution (DC) and public sector DBH pension schemes increased by £28 billion (4%) from £713 billion to £741 billion.

The fall in private sector DBH pension schemes' market value was driven by a fall in pooled investment vehicles, holdings of central government bonds (including gilts), and cash and cash equivalents. Please see the Funded occupational pension schemes in the UK dataset for a full breakdown.

Between 31 March and 30 September 2023, gilt yields of all maturities increased (See the [Bank of England yield curve overview](#) for more information). Gilt yields hold an inverse relationship to their price, meaning a decrease in yield is also an increase in price. Increases in gilt yields have likely contributed to the fall in central government bond holdings.

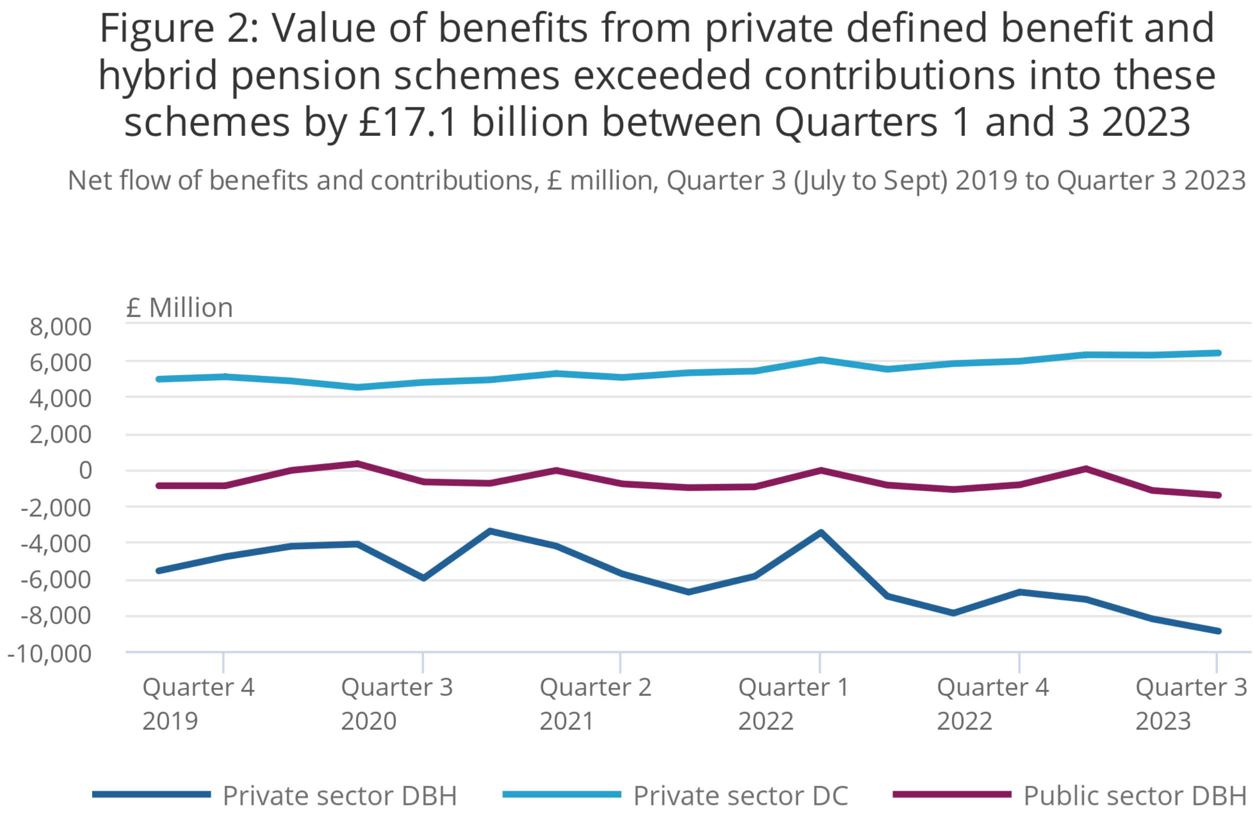
The increase in gilt yields is also likely to have caused a fall in private sector DBH pension entitlement liabilities (pension benefits owed to members), although this publication and dataset do not currently publish pension entitlement liabilities estimates. Pension entitlement liabilities are required in any calculation of the pension scheme funding position.

3 . Contributions

Changes in the market value of pension schemes were also driven by net flows of contributions into, and benefits from, pension schemes. Benefits include pension payments, income withdrawals, lump sum benefits and death benefits.

Figure 2: Value of benefits from private defined benefit and hybrid pension schemes exceeded contributions into these schemes by £17.1 billion between Quarters 1 and 3 2023

Net flow of benefits and contributions, £ million, Quarter 3 (July to Sept) 2019 to Quarter 3 2023



Source: Financial Survey of Pension Schemes from the Office for National Statistics

Notes:

1. Private sector DBH equals private sector defined benefit and hybrid pension schemes.
2. Private sector DC equals private sector defined contribution pension schemes.
3. Public sector DBH equals public sector defined benefit and hybrid pension schemes.
4. Quarter 1 equals January to March; Quarter 2 equals April to June; Quarter 3 equals July to September; Quarter 4 equals October to December.

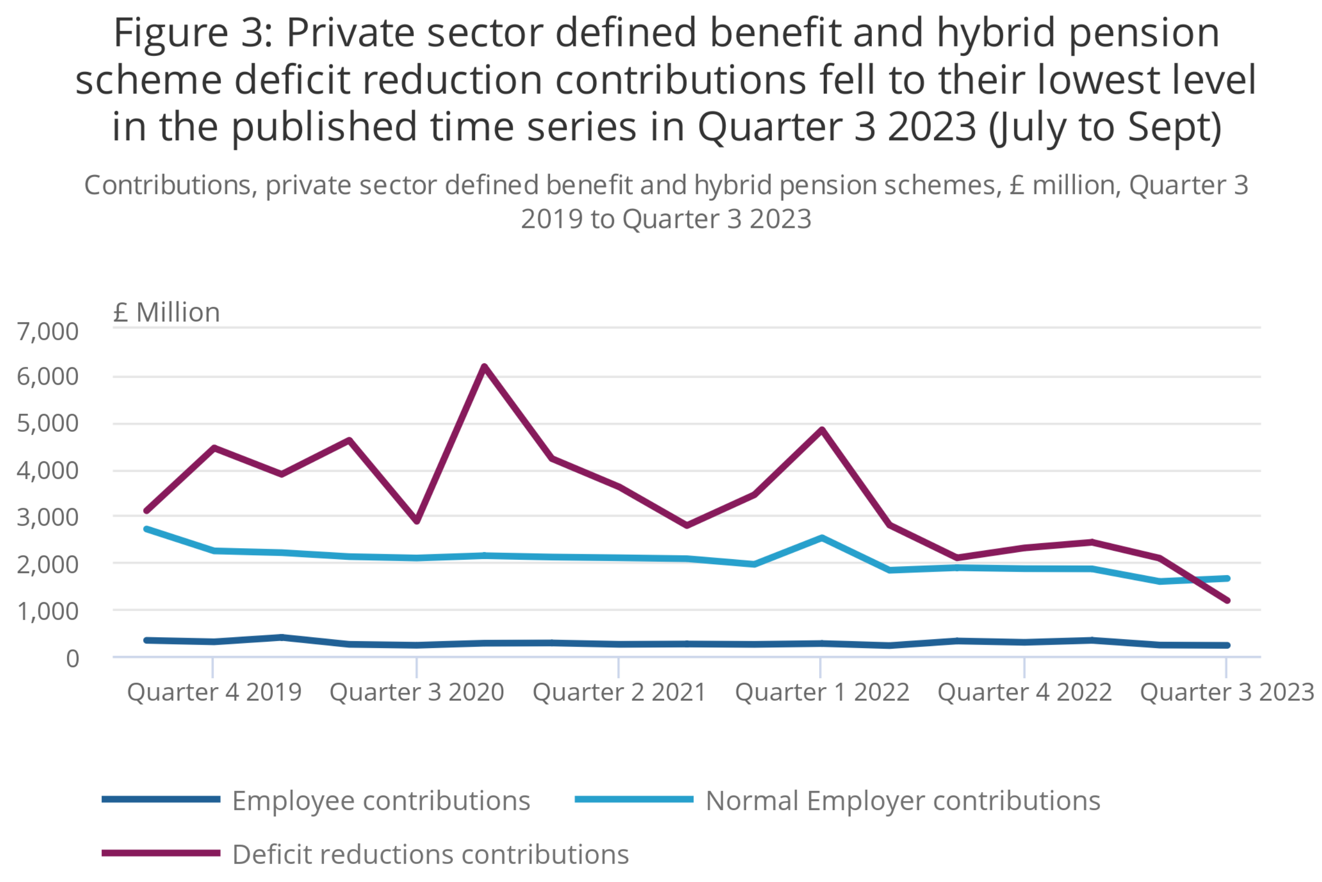
From Quarter 1 (Jan to Mar) to Quarter 3 (July to Sept) 2023, the value of benefits from private sector defined benefit and hybrid (DBH) pension schemes exceeded contributions into these schemes by £17.1 billion. This reflects the long-term trend within the UK pensions market whereby newly offered pension schemes in the private sector are increasingly likely to be defined contribution (DC) pension schemes. Many private sector DBH schemes are in a decumulation phase, where most members currently receive their pension benefits, and fewer schemes are open to new or existing members' contributions. Private sector DBH pension schemes will sell and use assets such as gilts, cash and cash equivalents and pooled investment vehicles to pay benefits owed to beneficiaries. Contributions into private sector DC pension schemes exceeded benefits by £12.7 billion during this period, while net flows into public sector DBH pension schemes were negative £2.6 billion.

As can be seen in Figure 2, net flows of contributions and benefits for private sector DBH pension schemes has gradually trended down across the entire time series. While benefits have increased gradually during this time, contributions have fallen more sharply and are the main determinant of the decrease in private sector DBH net flows of contributions and benefits. Please see the Funded occupational pension schemes in the UK dataset for a full breakdown.

Figure 3 presents contributions made to private sector DBH pension schemes between Quarter 3 2019 and Quarter 3 2023. These contributions are made up of employee contributions, employer normal contributions and employer deficit reduction contributions (DRCs).

Figure 3: Private sector defined benefit and hybrid pension scheme deficit reduction contributions fell to their lowest level in the published time series in Quarter 3 2023 (July to Sept)

Contributions, private sector defined benefit and hybrid pension schemes, £ million, Quarter 3 2019 to Quarter 3 2023



Source: Financial Survey of Pension Schemes from the Office for National Statistics

Notes:

1. Quarter 1 equals January to March; Quarter 2 equals April to June; Quarter 3 equals July to September; Quarter 4 equals October to December.

The purpose of DRCs is to make up shortfalls in a scheme’s funding position. Between Quarter 1 and Quarter 3 2023, private sector DBH pension scheme DRCs fell by £1.2 billion (51%). Employer DRC estimates from Quarter 2 (Apr to June) 2022 onwards were lower than all employer DRC estimates before Quarter 2 2022.

This may suggest an improvement in private sector DBH pension scheme funding positions in recent quarters. After increases in the interest rate during the first half of 2022, the market value of private sector DBH pension schemes fell (see Figure 1). However, a rise in the interest rate also causes the estimated present value of future pension entitlement liabilities (pension benefits owed to members) to fall. If the value of schemes’ pension entitlement liabilities falls by more than the market value of their assets, schemes’ funding positions improve, and they may pay less DRCs.

Please note, this series is volatile as DRCs tend to be paid infrequently rather than as regular, smooth contributions. Viewing the entire timeseries for DRCs, it is noticeable that there are large movements in previous quarters. These are influenced by large one-off DRCs by large schemes, which can cause a big change in the total level of DRCs. The volatility of DRCs is also the main determinant for the volatility of private sector DBH pension scheme net flows of contributions and benefits presented in Figure 2.

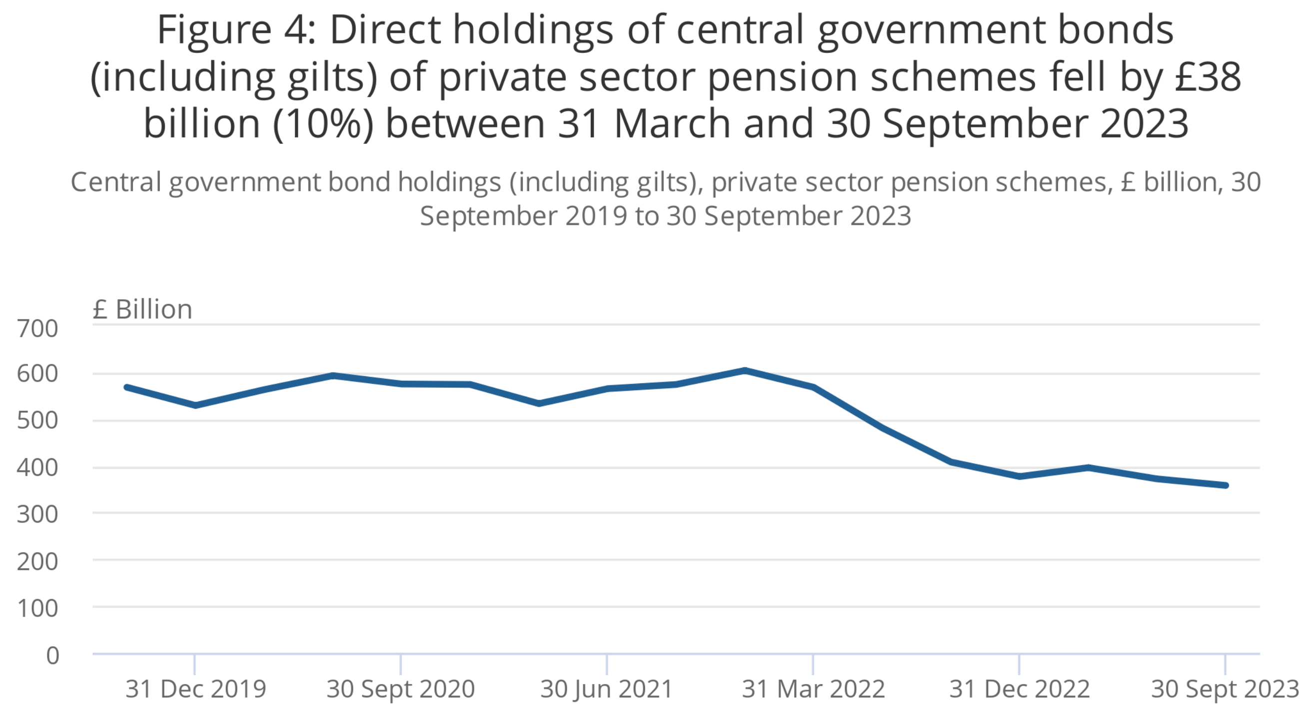
4 . Assets

The fall in private sector defined benefit and hybrid (DBH) pension schemes market value was driven by a fall in holdings of pooled investment vehicles (PIVs), central government bonds (including gilts) and cash and cash equivalents. Private sector PIV holdings fell by £49 billion (10%) between 31 March and 30 September 2023, driven by falls in money market funds and “other” funds. Other funds include cash, commodity and energy, structured products, unknown and with profits.

Figure 4 shows private sector direct holdings of central government bonds between 30 September 2019 and 30 September 2023. Private sector DBH pension schemes own most private sector central government bond holdings. Between 31 March and 30 September 2023, holdings of private sector central government bonds fell by £38 billion (10%), driven by the largest private sector DBH pension schemes.

Figure 4: Direct holdings of central government bonds (including gilts) of private sector pension schemes fell by £38 billion (10%) between 31 March and 30 September 2023

Central government bond holdings (including gilts), private sector pension schemes, £ billion, 30 September 2019 to 30 September 2023



Source: Financial Survey of Pension Schemes from the Office for National Statistics

Notes:

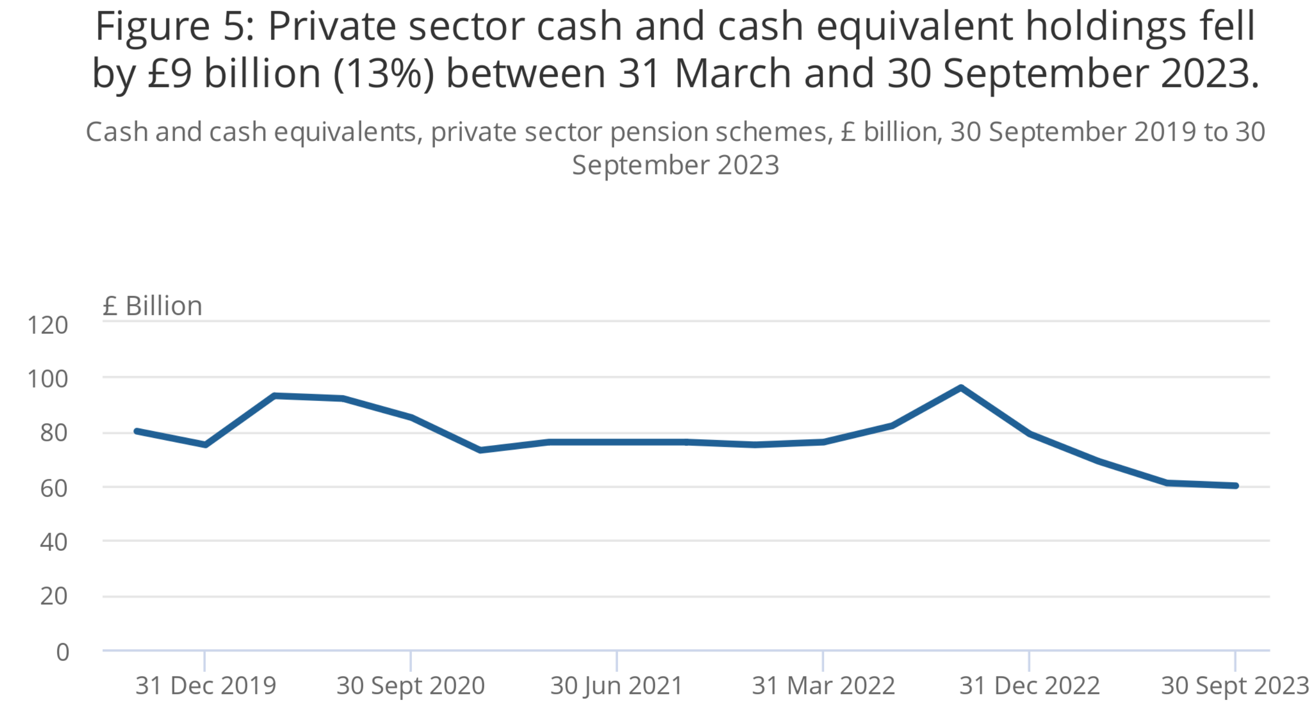
1. Private sector equals private sector defined benefit and hybrid and private sector defined contribution pension schemes.

The larger fall in private sector direct central government bond holdings between 31 March and 30 June 2023 (£24 billion) compared with the period between 30 June and 30 September 2023 (£14 billion) may have been at least partly because of the increase in gilt yields during Quarter 2 (Apr to June) 2023. For example, the UK 10-year overnight index swap (OIS) spot curve increased from 3.34% to 4.21% between 31 March and 30 June 2023, and to 4.26% as of 29 September 2023. Gilt yields hold an inverse relationship to their price. See the [Bank of England yield curve overview]() for more information.

Meanwhile, private sector pension scheme direct cash and cash equivalents decreased by £9 billion (13%) between 31 March and 30 September 2023. Most of the decrease in cash and cash equivalent holdings occurred between 31 March and 30 June 2023, during which time holdings fell by £8 billion (12%).

Figure 5: Private sector cash and cash equivalent holdings fell by £9 billion (13%) between 31 March and 30 September 2023.

Cash and cash equivalents, private sector pension schemes, £ billion, 30 September 2019 to 30 September 2023



Source: Financial Survey of Pension Schemes from the Office for National Statistics

Notes:

1. Private sector equals private sector defined benefit and hybrid and private sector defined contribution pension schemes.

Looking back to previous quarters, private sector cash and cash equivalent holdings increased between 30 June and 30 September 2022. This increase in cash holdings was related to the funding of collateral calls on liability driven investment (LDI) related assets, which was required after the events of late September 2022.

Following on from 30 September 2022, private sector cash and cash equivalent holdings have consistently decreased. This may reflect the completion of collateral call payments related to LDI assets, and in later quarters may reflect deleveraging in line with the reduction in repo liabilities.

Between 31 March and 30 June 2023, the fall of private sector cash and cash equivalent holdings came from a combination of private sector DBH pension schemes, including pension schemes that invest in pooled LDI funds. The fall in cash and cash equivalent holdings during this period may have been partly caused by deleveraging from schemes that follow pooled LDI. Pension schemes that follow pooled LDI which have reduced their cash holdings, have also reduced their pooled LDI holdings in the same period.

5 . Liability driven investment

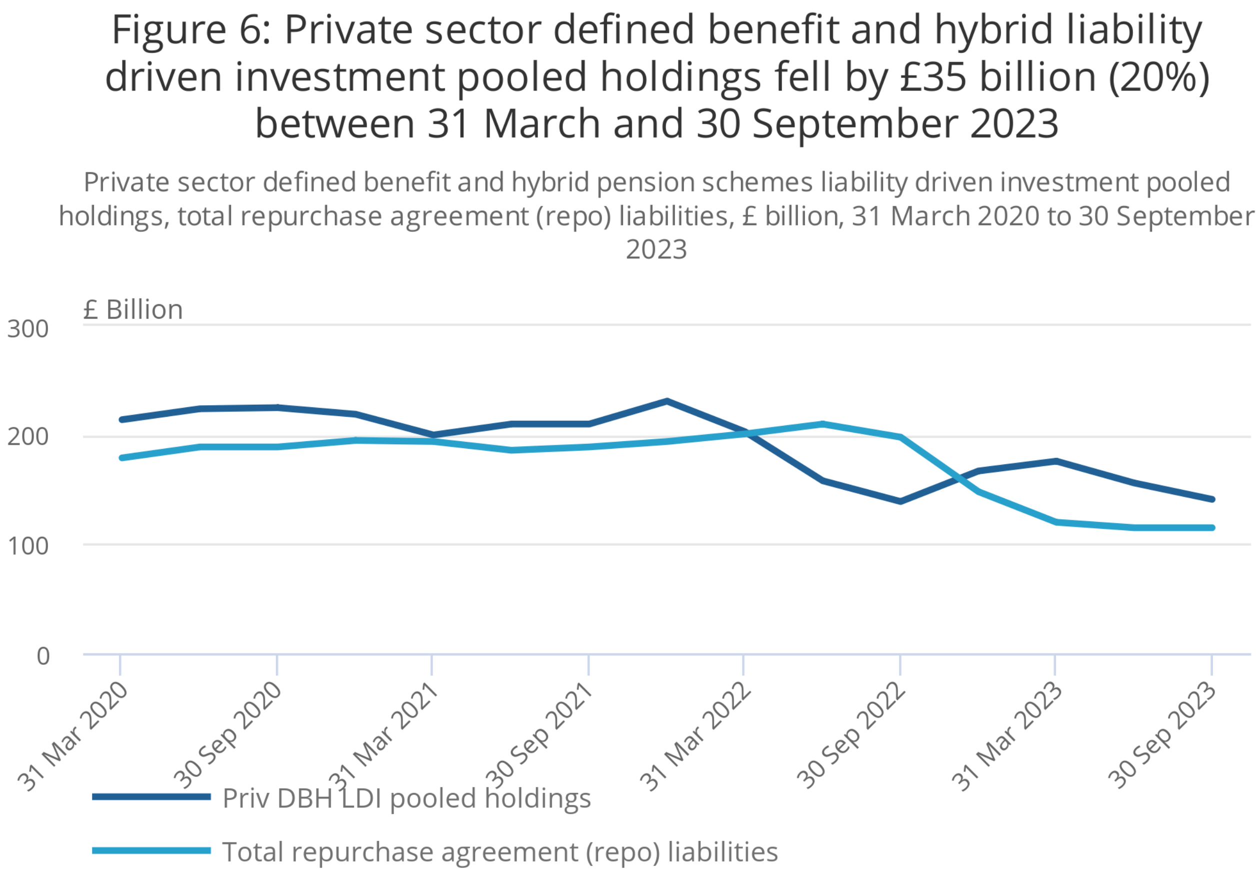
Liability driven investment (LDI) is an approach to investing pension scheme assets that is designed to match the scheme's pension liabilities, including managing uncertainty relating to interest rate and inflation risk. Pension schemes can do this as an individual scheme (segregated LDI strategy) or as part of a pooled fund. Repurchase agreements (repos) are predominantly used by large defined benefit and hybrid (DBH) pension schemes for borrowing in relation to segregated LDI.

Figure 6 illustrates private sector DBH pension scheme LDI pooled holdings alongside total repurchase agreement (repo) liabilities, allowing for a comparison between the two types of LDI (pooled and segregated). In general, larger private sector DBH schemes perform segregated LDI by using repos, while smaller pension schemes without the resources to perform segregated LDI, perform the strategy through LDI pooled funds.

Please note that [private sector DBH LDI pooled holding] estimates are calculated using a smaller pool of data and must be treated with caution.

Figure 6: Private sector defined benefit and hybrid liability driven investment pooled holdings fell by £35 billion (20%) between 31 March and 30 September 2023

Private sector defined benefit and hybrid pension schemes liability driven investment pooled holdings, total repurchase agreement (repo) liabilities, £ billion, 31 March 2020 to 30 September 2023



Source: Financial Survey of Pension Schemes from the Office for National Statistics

Between 31 March and 30 September 2023 repos remained relatively stable while LDI pooled holdings fell by £35 billion (20%). An increase in gilt yields between 31 March and 30 September 2023 is likely to have contributed to the fall in LDI pooled holdings for this period.

The decrease in both pooled LDI holdings and repo liabilities compared with levels across 2020 and 2021 may reflect that fewer LDI assets are now required to fully hedge pension entitlement liabilities compared to before 2022, when the interest rate was lower.

6 . Derivatives

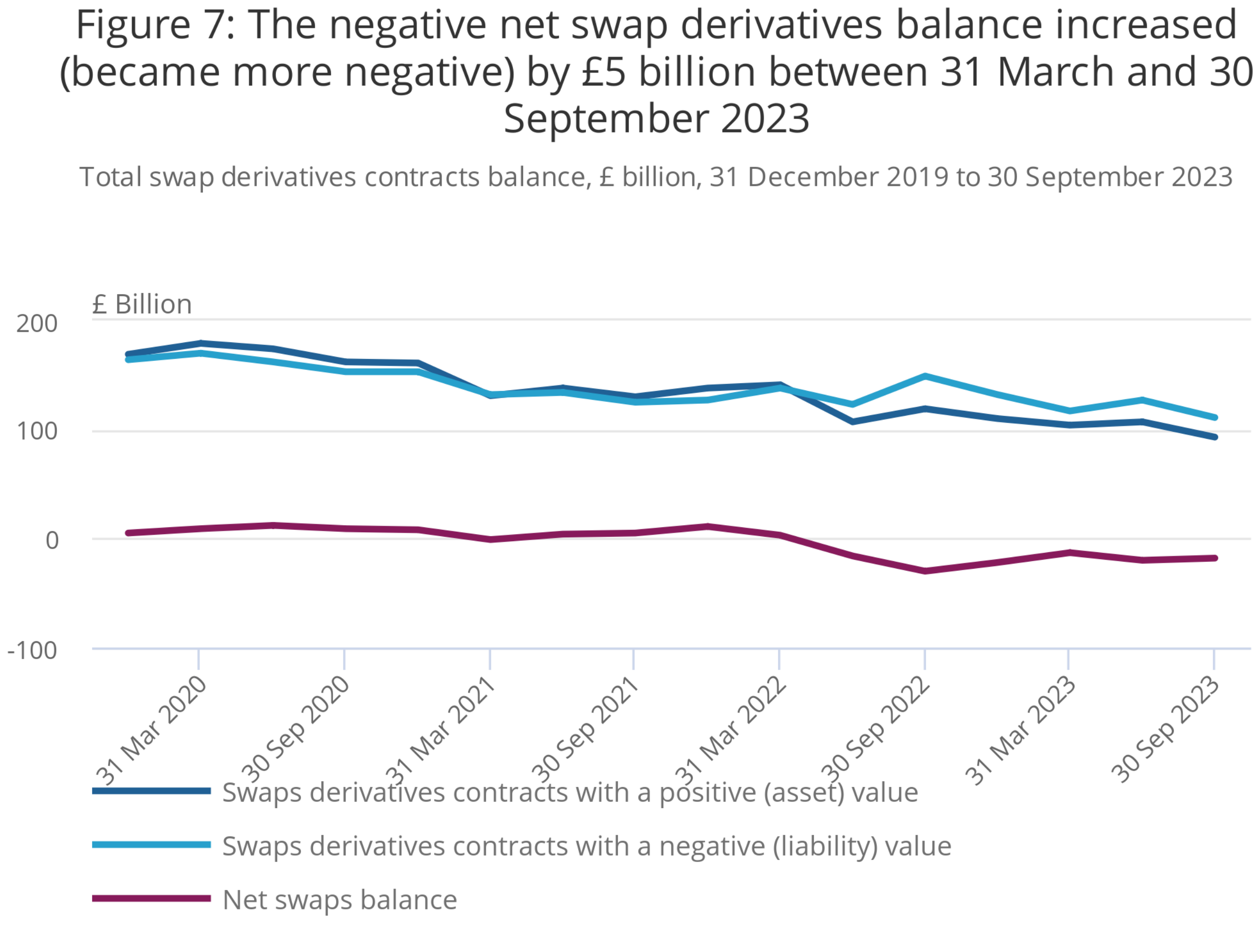
Pension schemes who use a segregated liability driven investment (LDI) strategy are likely to invest in swap derivatives contracts, alongside repo liabilities. Investing in swap derivatives contracts allows pension schemes to hedge against changes in interest rates and better match assets to pension entitlement liabilities. Most swap derivatives contracts are held by private defined benefit and hybrid (DBH) schemes.

Between 31 March and 30 September 2023, the value of swap derivatives with a positive value fell by £11 billion (11%) and those with a negative value fell by £6 billion (5%). The negative net swap derivatives balance increased (became more negative) by £5 billion between 31 March and 30 September 2023.

The net negative swap balance increase was driven by the movement between 31 March and 30 June 2023, where the value of negative swap derivatives rose more than the value of positive swap derivatives. This movement may be influenced by the increase in gilt yields during this period. If a pension scheme has entered a swap paying a floating rate in return for a fixed rate, a rise in bond yields may increase the variable amount of money owed to the counterparty, which therefore decreases the value of the derivatives swap contract.

Figure 7: The negative net swap derivatives balance increased (became more negative) by £5 billion between 31 March and 30 September 2023

Total swap derivatives contracts balance, £ billion, 31 December 2019 to 30 September 2023



Source: Total swap derivatives contracts balance, £ billion, 31 December 2019 to 30 September 2023

The reduction in both positive and negative derivatives contracts between 30 June and 30 September 2023 may suggest a drop in the overall value of swap contracts in place. Pension schemes may have closed derivatives contracts by settling the remaining balance and returning lower values for positive and negative swaps. A pension scheme looking to reduce its segregated LDI allocation may reduce its holdings of swap contracts. This is consistent with the trend in previous quarters and may follow a deleveraging investment strategy.

7 . Funded occupational pension schemes data

[Funded occupational pension schemes in the UK](#)
Dataset | Released 21 March 2023
Dataset including estimates on membership, contributions, benefits, assets (including overseas) and liabilities of UK funded occupational pension schemes from Quarter 3 (July to Sept) 2019 to Quarter 3 2023.

8 . Glossary

Active members

Members of pension schemes who are current employees and are either contributing to the scheme themselves or having contributions made on their behalf (for instance, by their employer).

Cash and cash equivalents

As per the guidance on the Financial Survey of Pension Schemes (FSPS) questionnaire, reporting within cash and cash equivalents includes the following categories:

- cash and deposits
- reverse repurchase agreements
- short-term loans
- long-term loans

Deferred members

Members of pension schemes who have accrued rights to pensions that will come into payment in future but who are no longer actively contributing (or having contributions paid ontheirbehalf) into the scheme. Also known as members with preserved pension entitlements.

Deficit reduction contributions (DRCs)

These are additional payments made by the sponsoring employer to reduce the shortfall of funding in a defined benefit and hybrid pension scheme. These payments to the pension scheme are additional to the regular ongoing funding contributions.

Defined benefit (DB)

These pension schemes are ones in which the rules of the scheme specify the rate of benefits to be paid. A common DB scheme is a final salary scheme in which the benefits are based on the number of years of pensionable service, the accrual rate, and the final salary. An alternative DB arrangement to the final salary scheme is the Career Average Revalued Earnings (CARE) scheme.

Defined contribution (DC)

Thesepension schemes are ones in which the benefits are determined by the contributions paid, the investment return on those contributions (less charges) and the type of annuity purchased upon retirement, if any. It is also known as a money purchase pension.

Deleverage

A reduction in debt through selling assets. For example, a pension scheme may have £100 million in assets and £20 million in liabilities (from borrowing that is left outstanding to pay). To fully deleverage, a scheme in this scenario would sell assets and use the cash to pay back all money borrowed. This would leave the scheme with no liabilities and £80 million in assets.

Discount rate

A rate of compound interest which is used to calculate the present value of a sum of money due in the future.

Drawdown

A method of taking money out of a pension pot in retirement where pension savings remain invested into a "drawdown" account as benefits are paid.

Funding position

The funding position of a scheme is how its current market value of assets compares with its liabilities. It can be expressed as a ratio of the scheme's assets and liabilities (known as the funding level) or as the difference between the assets and liabilities (referred to as a surplus or deficit).

Government managed pension schemes

Schemesclassifiedas having the "pension manager" in the Government sector (S.13) of the national accounts. In such cases, the Government sector (central and local government) is judged to be ultimately responsible for the schemes' pension obligations (the "pension manager") even if the Government sector is not responsible for scheme administration (the "pension administrator").

Liability driven investment (LDI)

Liability driven investment (LDI) is an approach to investing pension scheme assets that is designed to match the scheme's pension liabilities, including managing uncertainty relating to interest rate and inflation risk. Pension schemes can do this as an individual scheme (segregated LDI strategy) or as part of a pooled fund.

Liability driven investment (LDI) pooled fund

A leveraged fund centred around a LDI strategy in which there is more than one investor in the fund or underlying fund(s).

Market value

The market value of pension schemes includes all assets, the net value of derivative contracts that schemes have invested in, and liabilities other than pension benefits owed to members. The formula equals total assets excluding derivatives plus net derivatives balance minus total non-pension entitlement liabilities.

Pensioner members

Members of pension schemes who are receiving pensions or income withdrawals, sometimes known as beneficiaries.

Present value

The estimated value of a future entitlement in today's money, calculated using a discount rate.

Repurchase agreements (Repos)

A party (such as a pension scheme) sells the underlying security to a counterparty (such as a bank) in return for cash equal to the value of the underlying security. An agreement is in place to repurchase this security with interest at an agreed upon date. Typically used as a form of short-term borrowing, mainly in government securities.

UFPLS (uncrystallised funds pension lump sum)

A method of taking money out of a pension pot in retirement in lump sums directly from the pension investment account, with the remaining pot still with the pension scheme.

Afull glossaryof terms is available.

9 . Measuring the data

Weighting and estimation

Information on the sampling and weighting and estimation methods for the Financial Survey of Pension Schemes can be found in Section 5 of UK pension surveys: redevelopment and 2019 results article.

Revisions

Our National Accounts Revisions Policy is available to assist users with their understanding of the cycle and frequency of data revisions. You are strongly advised to read this policy before using these data for research or policy-related purposes.

Survey coverage

The Office for National Statistics (ONS) replaced the MQ5 "Investment by insurance companies, pension funds and trusts" with the Financial Survey of Pension Schemes (FSPS) from Quarter 2 (Apr to June) 2019. The FSPS is a quarterly survey that collects data on membership, income and expenditure, transactions, assets, and liabilities of UK funded occupational pension schemes.

In practice, this means that all occupational schemes for private sector employees are in the survey, but the survey does not include all occupational schemes for public sector employees: funded schemes for public sector employees such as the Local Government Pension Scheme (LGPS) are included, but unfunded schemes such as those for civil servants, teachers and NHS staff are not.

Breakdowns

We present results for pension schemes for private sector employees (including those covered by the Pension Protection Fund) versus those for public sector employees; and by defined benefit including hybrid pensions versus defined contribution pensions. We use the term "schemes for public sector employees" but strictly speaking, these are government managed pension schemes (see Section 8: Glossary from our UK pension surveys article).

There are no defined contribution funded occupational pension schemes for public sector employees. Therefore, we present three categories:

- public sector employee schemes (which are defined benefit and hybrid schemes)
- private sector employee defined benefit and hybrid schemes
- private sector employee defined contribution schemes

See Section 8: Glossary from our UK pension surveys article for the FSPS definitions of these categories.

Response rates

The response rate for Quarter 2 (Apr to June) and Quarter 3 (July to Sept) 2023 for the FSPS, for the latest results run, was 85% and 83% respectively. Please note that even though the response date has passed, it is possible for there to be revisions to submissions for previous quarters, and for late submissions to be provided. However, estimates up to and including Quarter 3 2022 will not be subject to further revisions.

10 . Related links

[Funded occupational pension schemes in the UK Quality and Methodology Information (QMI)]
QMI | Revised 20 March 2024
Quality and Methodology Information for the funded occupational pension schemes in the UK using data from the Financial Survey of Pension Schemes (FSPS), detailing the strengths and limitations of the data, methods used, and data uses and users.

[Financial Survey of Pension Schemes]
Survey | Updated 14 February 2024
A quarterly survey that gathers information about income and expenditure, transactions, assets and liabilities of UK-funded occupational pension schemes.

[Funded occupational pension schemes in the UK, current and upcoming work: January 2023]
Article | Released 11 January 2023
Updates on the development of funded occupational pension schemes statistics, including progress made against the requirements to be designated National Statistics.

[Employee workplace pensions in the UK]
Bulletin | Annual
Membership and contributions to workplace pension arrangements for UK employees by type, age, industry, public and private sector, occupation, and size of company. Compiled from the Annual Survey of Hours and Earnings (ASHE).

11 . Cite this statistical bulletin

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