Office for National Statistics

Statistical bulletin

Funded occupational pension schemes in the UK: January to March 2023

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

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Correction

21 March 2024 10:30

We have corrected a minor error in our dataset affecting total long-term debt securities.

In the previous version, estimates of total long-term debt securities published in the overseas direct investment sheet of our dataset were underreported. This also meant that total direct investments in the overseas direct investment sheet were underreported.

We have corrected the error in our latest dataset. These data do not impact other estimates within the dataset.

Notice

21 September 2023

Going forward, we will be changing the frequency of this release from quarterly to every six months. 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.

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1 . Main points

- The movements in private sector defined benefit and hybrid pension scheme assets, liabilities, and derivatives between 31 December 2022 and 31 March 2023, suggest schemes continued to reduce borrowing (deleveraged), likely in response to the increases in gilt yields seen in late September to early October 2022.

- The value of repurchase agreement (repo) liabilities decreased by £27 billion (18%) between 31 December 2022 and 31 March 2023.

- Estimates suggest that there were fewer swaps contracts as at 31 March 2023 than 31 December 2022, that both negative and positive swaps derivative balances fell during this time, and the net swaps balance reduced (became less negative) by £9 billion.

- Private sector cash and cash equivalent holdings fell by £10 billion (12%) between 31 December 2022 and 31 March 2023; some of these holdings may have been used to pay off repo liabilities.

- Private sector defined benefit and hybrid liability driven investment (LDI) pooled fund holdings increased by £5 billion (3%) between 31 December 2022 and 31 March 2023.

2 . Non-pension entitlement liabilities

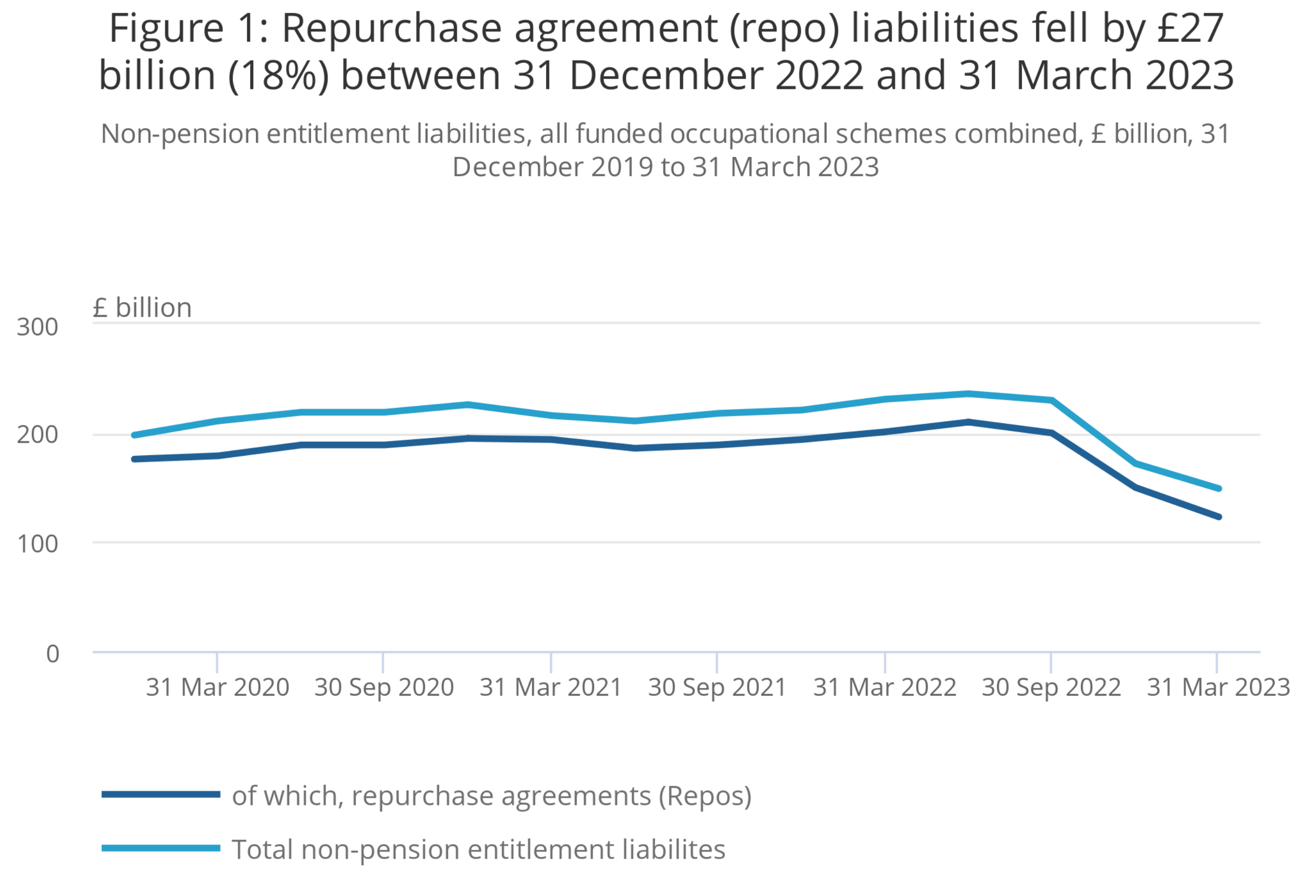
Figure 1 illustrates total non-pension entitlement liabilities (all liabilities apart from assets owed to members) and repurchase agreement (repos) from UK funded occupational pension schemes.

Repos are predominantly used by pension schemes for borrowing, with gilts typically used as the collateral for these transactions. Please see Section 7, Glossary for further definitions. Most of the repos shown in Figure 1 originate from private sector defined benefit and hybrid (DBH) schemes.

Non-pension entitlement liabilities fell by £23 billion between 31 December 2022 and 31 March 2023. Repurchase agreement (repo) liabilities, which comprise the majority of non-pension entitlement liabilities, fell by £27 billion during this time. Overall, non-pension entitlement liabilities fell by £87 billion between 30 June 2022 and 31 March 2023, driven by an £87 billion fall in repo liabilities.

Figure 1: Repurchase agreement (repo) liabilities fell by £27 billion (18%) between 31 December 2022 and 31 March 2023

Non-pension entitlement liabilities, all funded occupational schemes combined, £ billion, 31 December 2019 to 31 March 2023



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

In Quarter 1 (Jan to Mar) 2023, the decrease in repos was likely to be because of a reduction in borrowing by pension schemes given that changes in gilt prices would otherwise have been expected to increase repos over this period. For example, between 31 December 2022 and 31 March 2023, the 10-year gilt yield fell from 3.73% to 3.48%. Bond (gilt) yields hold an inverse relationship to their price, meaning a decrease in yield is also an increase in price. See the Bank of England yield curve overview for more information.

A reduction in borrowing is consistent with a strategy of deleveraging, defined as a reduction of debt by selling assets. The goal of deleveraging is to reduce the percentage of a pension scheme's investment portfolio that is funded by liabilities (borrowing).

The reduction in repos may be a response by pension schemes to the events of late September to early October 2022, where a sharp increase in gilt yields prompted short-notice collateral calls on liability driven investment (LDI) related investments held by schemes. Repos are used by schemes for borrowing in relation to LDI strategies. A deleveraging private sector DBH pension scheme may intend to lower the asset allocation dedicated towards LDI. See GOV.UK's Actuaries in government blog post for more information.

3 . Derivatives

A derivative asset is a financial contract, the value of which is derived from an underlying asset. UK funded occupational pension schemes mainly hold forward foreign currency contracts to hedge against exchange rate risk, and swaps contracts in relation to liability driven investment (LDI) strategies.

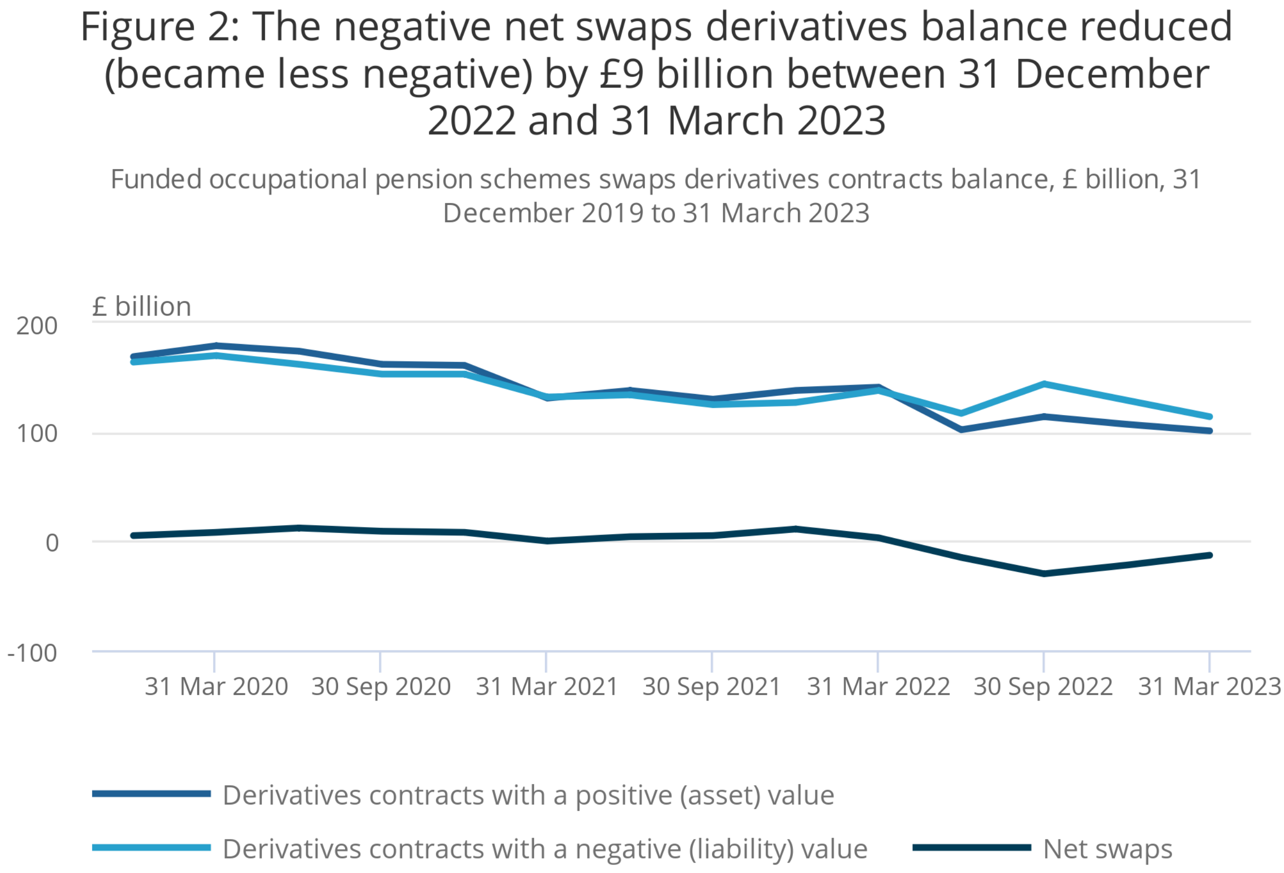
Swaps are one type of derivative contract held by a pension scheme wherein two parties decide to exchange liabilities or cash flows from separate financial instruments. For example, in an interest rate swap, a pension scheme would swap a stream of future interest payments for another based on a specified principal amount. Swaps contracts allow pension schemes to match pension entitlement liability movements using fewer current assets.

Each pension scheme sampled in the Financial Survey of Pension Schemes provides estimates of the summed value of all their “in the money” swaps contracts at the end of the quarter. These are swaps that have a positive balance and are therefore an asset to the scheme. Schemes also provide estimates for swaps that are “out of the money”. These are swaps that have a negative balance and are therefore a liability to the scheme. The difference between the sum of all “in the money” and all “out of the money” swaps is the net swaps balance.

Most of the swaps balances shown in Figure 2 originate from private sector defined benefit and hybrid (DBH) schemes.

Figure 2: The negative net swaps derivatives balance reduced (became less negative) by £9 billion between 31 December 2022 and 31 March 2023

Funded occupational pension schemes swaps derivatives contracts balance, £ billion, 31 December 2019 to 31 March 2023



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

The decrease in both positive and negative swaps balances between 31 December 2022 and 31 March 2023 suggests a drop in the overall value of swaps contracts in place. In Quarter 1 (Jan to Mar) 2023, pension schemes may have closed derivatives contracts by settling the remaining balance and returning lower values for "in the money" and "out of the money" swaps. A pension scheme looking to reduce its segregated LDI allocation may reduce holdings of swaps contracts, along with repo liabilities.

4 . Assets

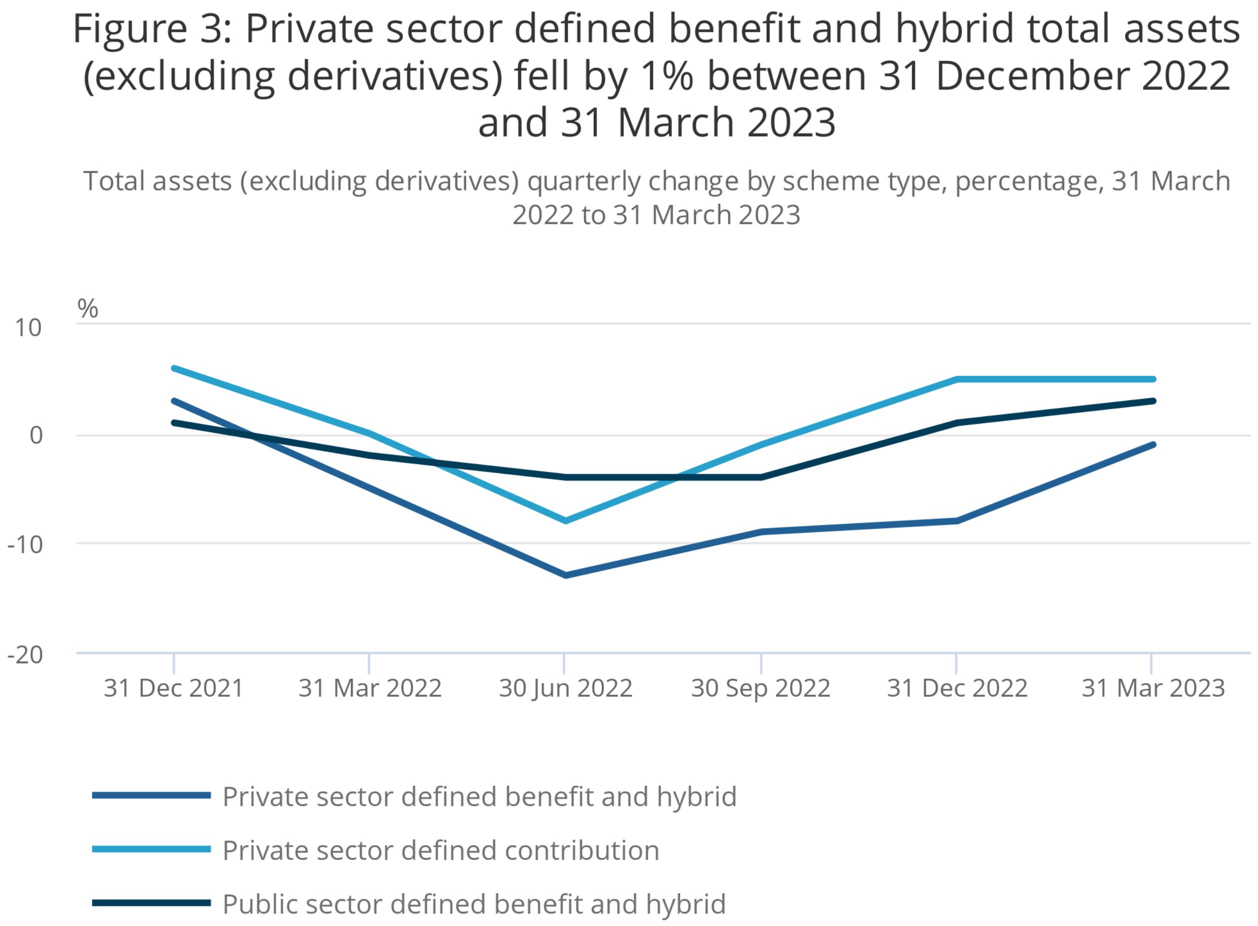
Figure 3 illustrates the quarterly change in total assets (excluding derivatives) for UK funded occupational pension schemes by scheme type between 31 December 2021 and 31 March 2023. Between 31 March 2022 and 30 September 2022, falls in the value of total assets for all scheme types were driven primarily by the impact of global interest rate rises.

Private sector defined benefit and hybrid (DBH) pension schemes have been particularly affected, as these schemes hold a higher proportion of assets that are more directly exposed to interest rate changes, such as bonds. Direct and indirect bond holding losses account for the largest proportion of decreased holdings for private sector DBH pension schemes between 31 March 2022 and 31 December 2022.

A fall in the value of equity holdings is another contributor to the overall fall in the value of total assets in recent quarters. Private sector scheme holdings of equities have fallen in each of the last five quarters since 31 December 2021. Between 31 March 2022 and 30 June 2022, equities markets performed particularly poorly, which also explains some of the fall in the value of total assets in Quarter 2 (Apr to June) 2022 for all scheme types. From 31 March 2022 to 30 June 2022 the FTSE all-share UK equity index fell by 6%, while the S&P 500 US equity index dropped by 16%.

Figure 3: Private sector defined benefit and hybrid total assets (excluding derivatives) fell by 1% between 31 December 2022 and 31 March 2023

Total assets (excluding derivatives) quarterly change by scheme type, percentage, 31 March 2022 to 31 March 2023



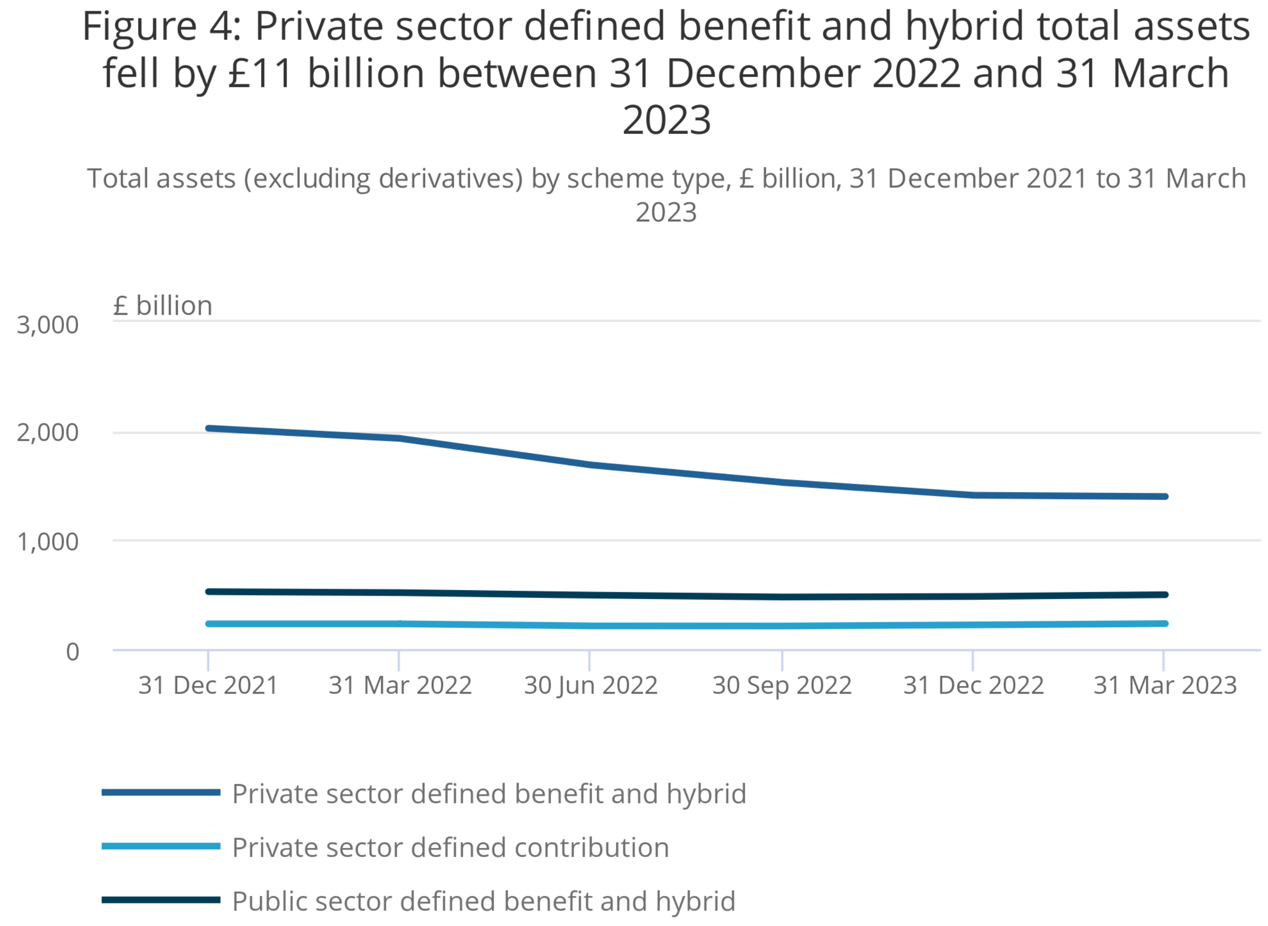
Source: Financial Survey of Pension Schemes from the Office for National Statistics

In the latest two quarters, private sector DBH scheme deleveraging is likely to have been a contributing factor towards the larger falls in total assets compared with private sector-defined contribution and public sector-defined DBH schemes. More liquid assets of private sector schemes, such as cash and cash equivalents and receivables (income due but not yet received), have decreased by £27 billion (28%) and £18 billion (62%), respectively, between 30 September 2022 and 31 March 2023 (please see dataset).

Between 31 December 2021 and 31 March 2023, private sector DBH total assets (excluding derivatives) fell by £626 billion (31%), from £2025 billion to £1399 billion, of which £11 billion was between 31 December 2022 and 31 March 2023.

Figure 4: Private sector defined benefit and hybrid total assets fell by £11 billion between 31 December 2022 and 31 March 2023

Total assets (excluding derivatives) by scheme type, £ billion, 31 December 2021 to 31 March 2023

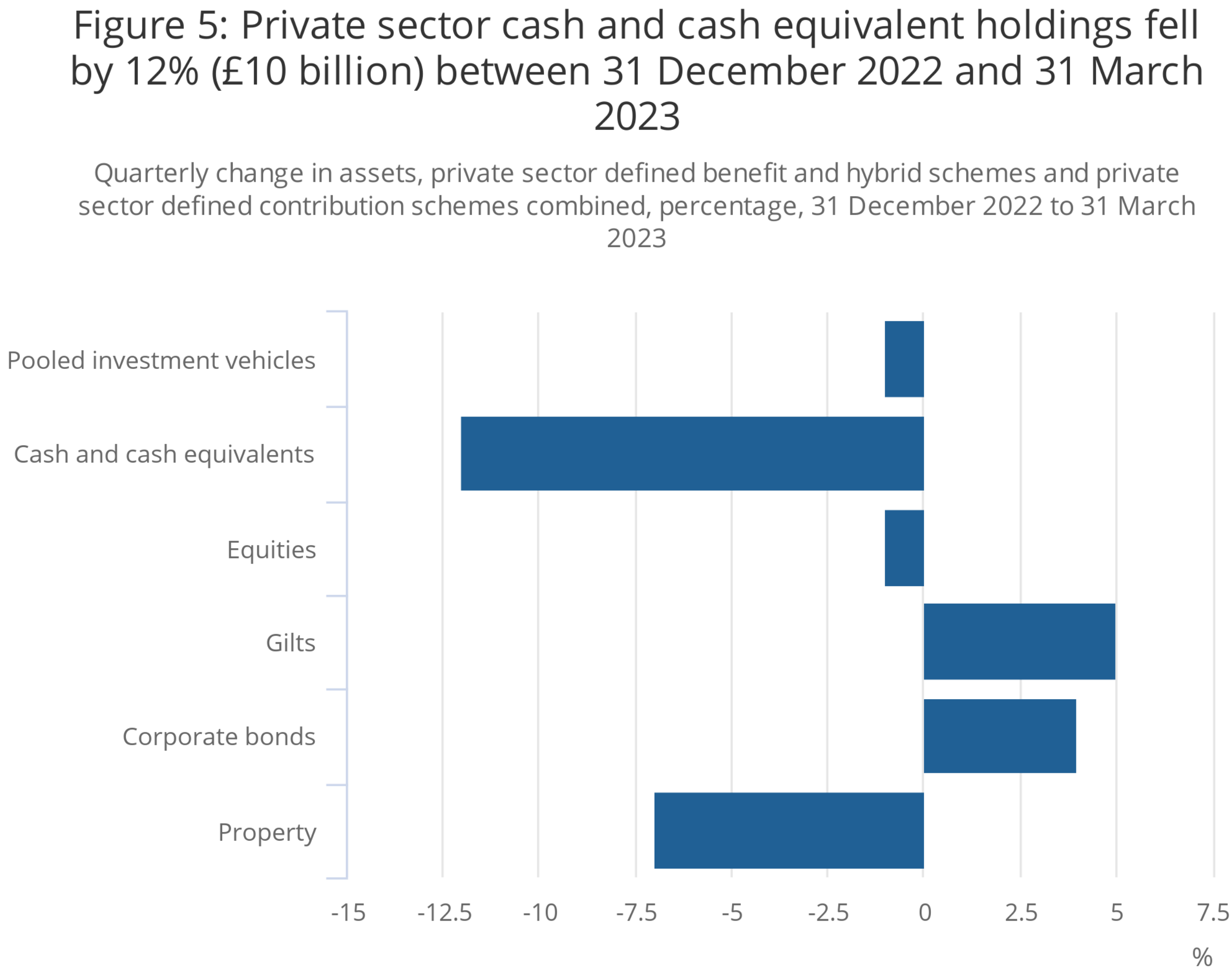


Source: Financial Survey of Pension Schemes from the Office for National Statistics

Pension schemes can either directly hold assets themselves, or they can indirectly hold them via pooled investment vehicles (PIVs). Directly held assets include cash and cash equivalents, equities, gilts, corporate bonds, and property. Collectively, these assets make up a substantial portion of overall assets for private sector pension schemes.

Figure 5: Private sector cash and cash equivalent holdings fell by 12% (£10 billion) between 31 December 2022 and 31 March 2023

Quarterly change in assets, private sector defined benefit and hybrid schemes and private sector defined contribution schemes combined, percentage, 31 December 2022 to 31 March 2023



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

Cash and cash equivalents are considered liquid assets. Some of the fall in cash and cash equivalents between 31 December 2022 and 31 March 2023 may be explained by private sector DBH schemes using these assets to pay off repo liabilities and settle out-of-the-money (negative) swaps derivatives contracts. Many medium and large private sector DBH pension schemes reported lower cash and cash equivalents assets this quarter.

The fall in the holdings of cash, PIVs, equities and property from private sector pension schemes may indicate a shift in asset allocation towards bonds for some schemes. For instance, gilt holdings increased by £21 billion (5%) between 31 December 2022 and 31 March 2023, driven by the largest private sector DBH pension schemes.

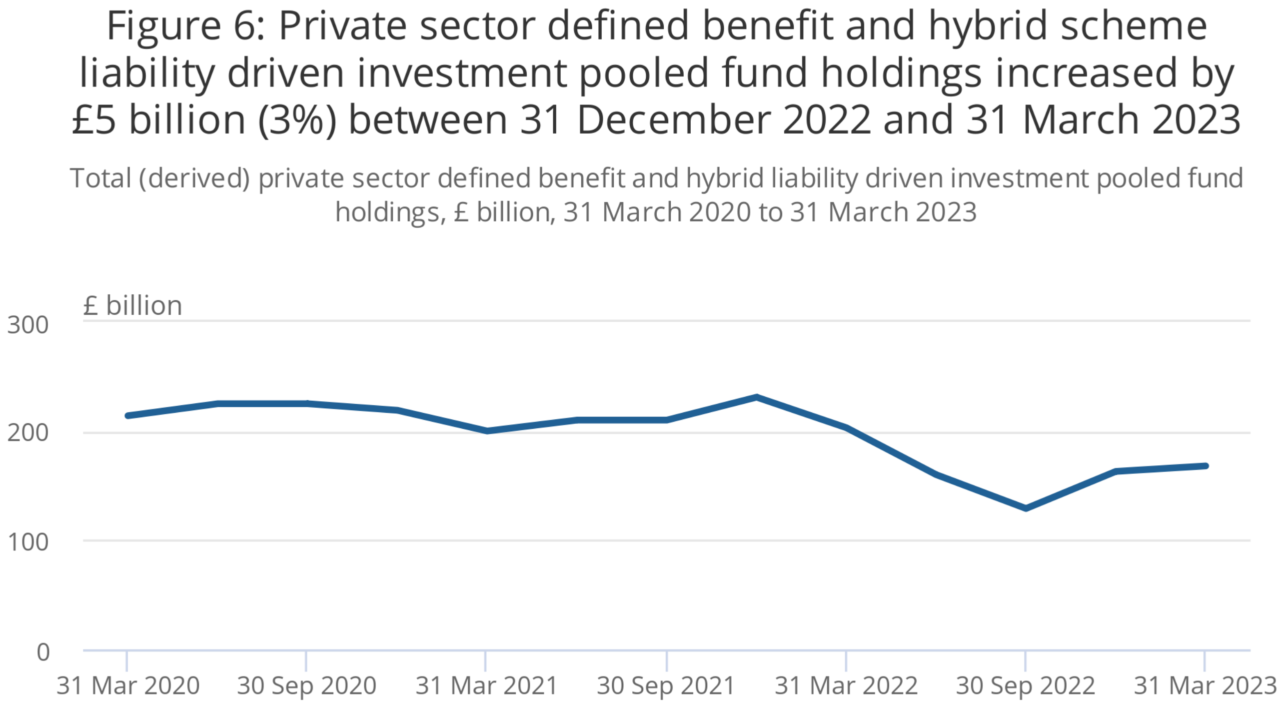
5 . Liability driven investment pooled funds

A proportion of private sector-defined benefit and hybrid (DBH) pooled investment vehicle (PIV) holdings are within liability driven investment (LDI) pooled funds. These are leveraged funds centred around an LDI strategy in which there is more than one investor in the fund or underlying fund(s).

The proportion of PIVs in LDI pooled funds for "known schemes" is applied to total private sector DBH PIVs, resulting in an estimate for total private sector DBH LDI pooled fund holdings. Please see our [Funded occupational pension schemes: July to September 2022 bulletin] for further information on the methodology of these estimates.

Figure 6: Private sector defined benefit and hybrid scheme liability driven investment pooled fund holdings increased by £5 billion (3%) between 31 December 2022 and 31 March 2023

Total (derived) private sector defined benefit and hybrid liability driven investment pooled fund holdings, £ billion, 31 March 2020 to 31 March 2023



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

Private sector DBH LDI pooled fund holdings increased by £5 billion between 31 December 2022 and 31 March 2023 but remain lower than estimated holdings in 2020 and 2021. This may reflect the change in interest rate environment throughout 2022 and into 2023 as well as lower borrowed exposure to gilts from repos and derivative contracts.

This may indicate that LDI pooled funds as at 31 March 2022 have rebalanced leverage ratios (the ratio of the value of its assets to its liabilities). After a sharp rise in gilt yields in late September to early October 2022, a fall in gilt prices and the sale of gilts changed the liquidity ratio of many LDI funds. LDI funds are likely to have rebalanced the ratio of assets and liabilities in the following periods to restore leverage ratios. For an example of LDI pooled rebalancing following a sharp rise in gilt yields, please see Figure 5.1 from the [Bank of England December 2022 Financial Stability Report].

6 . Funded occupational pension schemes data

Funded occupational pension schemes in the UK
Dataset | Released 21 September 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 1 (Jan to Mar) 2023.

7 . 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 that 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.

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)

A 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 an 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.

A full glossaryof terms is available.

8 . 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 our 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

SeeSection 7: Glossary from our UK pension surveys articlefor the FSPS definitions of these categories.

Response rates

The response rate for Quarter 1 (Jan to Mar) 2023 for the FSPS, at the period of closedown, was 81%. 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, all estimates up to and including Quarter 4 2021 will not be subject to further revisions.

9 . Related links

[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.

[Funded occupational pension schemes in the UK Quality and Methodology Information (QMI)]
Methodology | Released 25 March 2022
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 7 July 2023
A quarterly survey that gathers information about income and expenditure, transactions, assets and liabilities of UK funded occupational pension schemes.

[Employee workplace pensions in the UK]
Bulletin | Released 20 April 2022
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).

10 . Cite this statistical bulletin

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