Office for National Statistics

Statistical bulletin

Funded occupational pension schemes in the UK: April to June 2022

Quarterly results from The Financial Survey of Pension Schemes (FSPS) including membership, income and expenditure, transactions, assets, and liabilities.

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1 . Main points

- A split of the different non-pension entitlement liabilities is published for the first time, including cash and borrowing and repurchase agreements (repos); repo liabilities increased by 7% from £195 billion to £208 billion from 31 March 2022 to 30 June 2022.

- Private sector defined benefit and hybrid pension scheme assets excluding derivatives fell by 12% from 31 March 2022 to 30 June 2022, driven by falls in pooled investment vehicle holdings and direct investment long-term debt securities and equities.

- Both long-term conventional and index-linked gilts (UK government bonds) holdings fell by over 10% for private and public sector defined benefit and hybrid pension schemes from 31 March 2022 to 30 June 2022, as gilt yields rose over Quarter 2 (Apr to June) 2022.

- As of 30 June 2022, the net balance of swaps derivatives contracts for funded occupational pension schemes (the collective market value of all swaps contracts held) was negative £15 billion; the net swaps balance was negative for the first time in the timeseries.

A new sample has been introduced for the Financial Survey of Pension Schemes from Quarter 2 2022, which will be used for six quarters. Therefore, data in the next quarters may be subject to more revisions. As we receive new information from respondents, we can improve our estimates for earlier periods. This may occur as newly selected schemes improve their understanding of the questionnaire and are better able to report in line with our requirements.

2 . Summary of Quarter 2 (Apr to June) 2022

Table 1 provides a summary of UK funded occupational pension schemes, split by scheme type for membership, benefits, contributions and the three main asset classes held: pooled investment vehicle (PIV) holdings, direct investments, and insurance policy assets. Data are presented for Quarter 4 (Oct to Dec) 2019 and the two most recent published time periods (Quarter 1 (Jan to Mar) 2022 and Quarter 2 (Apr to June) 2022).

Table 1: Summary table by scheme type
UK, Quarter 4 2019, Quarter 1 2022 and Quarter 2 2022

		Private sector DC			Private sector DBH			Public sector DBH		
	Units	**Q4 2019**	**Q1 2022**	**Q2 2022**	**Q4 2019**	**Q1 2022**	**Q2 2022**	**Q4 2019**	**Q1 2022**	**Q2 2022**
Total membership	**million (number of people)**	22.43	27.40	27.61	11.60	10.19	10.08	6.76	7.38	7.32
Total contributions	**£ million**	5,436	6,649	6,383	7,510	7,996	4,991	2,713	4,106	3,114
Total benefits	**£ million**	346	621	689	12,325	11,477	12,550	3,621	4,150	4,040
Total Pooled Investment Vehicles	**£ billion**	142	211	196	730	705	598	228	293	276
Total Direct Investments	**£ billion**	4	19	20	1,022	1,089	981	174	210	207
Total Insurance Policies assets	**£ billion**	-	1	1	108	139	113	2	2	2

Source: Financial Survey of Pension Schemes, Office for National Statistics

Notes

1. DBH equals defined benefit and hybrid, DC equals defined contribution.
2. For benefits and contributions, each time period relates to estimates over the quarter (for instance for Q4 2019, this is from October to December 2019).
3. For membership, pooled investment vehicles, direct investments and insurance policies assets, each time period relates to estimates as at the end of the period (for instance for Q4 2019, this is as at 31 December 2019).
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.

Table 2 illustrates overall assets, liabilities and derivatives of UK funded occupational pension schemes for the same time periods as Table 1.

Table 2: Assets and liabilities of all UK funded occupational pension schemes, UK, 31 Dec 2019 to 31 Mar 2022
UK, 31 December 2019 to 30 June 2022

£ billion

	31 December 2019	31 March 2022	30 June 2022
Gross assets excluding derivatives	2,410	2,669	2,394
Gross liabilities other than pension liabilities, excluding derivatives	198	225	234
Derivatives contracts with a positive (asset) value	303	295	251
Derivatives contracts with a negative (liability) value	291	298	276
Net assets including derivatives or 'market value of pension funds'	2,224	2,441	2,135
Gross assets including derivatives contracts with a positive (asset) value	2,713	2,964	2,645

Source: Financial Survey of Pension Schemes, Office for National Statistics

Notes

1. Components may not equal totals due to rounding.

Table 2 illustrates that the market value of UK funded occupational pension schemes was lower on 30 June 2022 than on 31 December 2019. This is despite total membership increasing from 40.79 million to 45.01 million across the same period (for latest membership estimates please see the reference table).

3 . Assets

Pooled Investment Vehicles

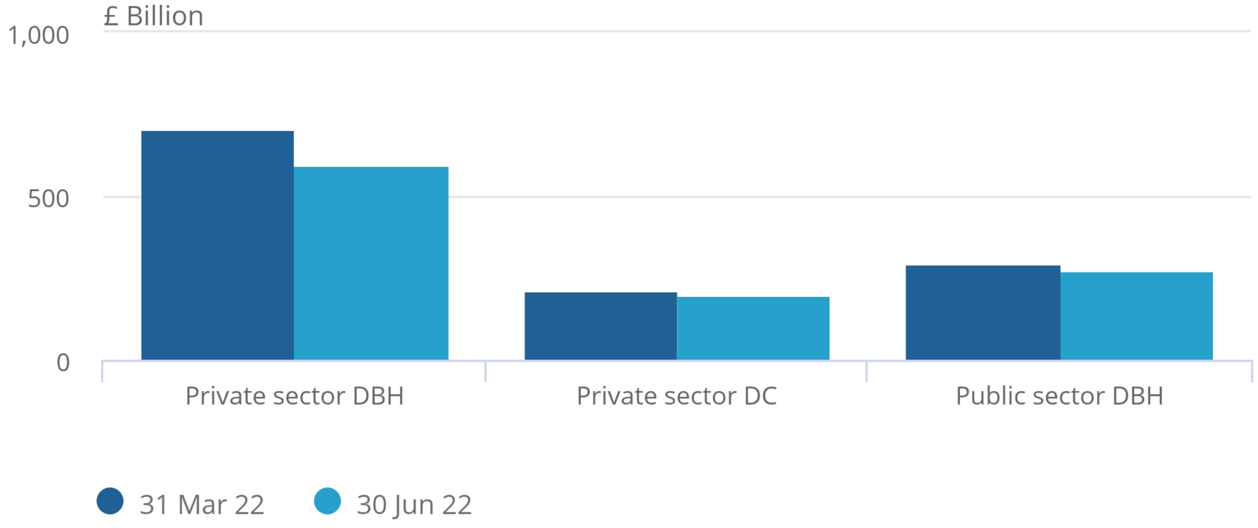
Private sector defined benefit and hybrid (DBH) schemes' pooled investment vehicle (PIV) holdings fell by £107 billion (15%) from 31 March 2022 to 30 June 2022. In comparison, private sector defined contribution (DC) and public sector DBH schemes dropped by 7% and 6%, respectively.

Figure 1: Private sector defined benefit and hybrid pension schemes' pooled investment vehicle holdings fell by 15% from 31 March 2022 to 30 June 2022

Pooled investment vehicle holdings, private sector defined benefit and hybrid, public sector defined benefit and hybrid and private sector defined contribution, £ billion, 31 March 2022 and 30 June 2022

Figure 1: Private sector defined benefit and hybrid pension schemes' pooled investment vehicle holdings fell by 15% from 31 March 2022 to 30 June 2022

Pooled investment vehicle holdings, private sector defined benefit and hybrid, public sector defined benefit and hybrid and private sector defined contribution, £ billion, 31 March 2022 and 30 June 2022



Source: Financial Survey of Pension Schemes, Office for National Statistics

Notes:

1. DBH equals defined benefit and hybrid. DC equals defined contribution

A substantial proportion of private sector DBH PIV holdings are within Liability Driven Investment (LDI) pooled funds. LDI is a strategy that seeks to align changes in the value of a scheme's assets and liabilities. A portion of a scheme's assets are invested in financial instruments that seek to match the sensitivity of the discount rate used to calculate the present value of the scheme's future liabilities (for definitions see glossary). Another portion of the scheme's funds may then be invested in growth assets.

LDI funds usually buy gilts as part of this strategy because they are generally considered low-risk. Typically, LDI funds buy gilts and then use these gilts as collateral to borrow funds which are then used to buy more gilts. This way, for every £1 invested in gilts, a scheme could be exposed to the price movements of gilts the equivalent of multiple times the amount they own. This is known as leverage. LDI pooled funds have a target leverage, which means they aim to have a certain ratio between assets (gilts) held and gilts market exposure.

LDI strategies are not followed by private sector DC schemes, while public sector DBH PIV holdings predominantly consist of equity PIVs, as can be seen in the dataset. LDI pooled funds do not use equities.

Evidence suggests that in June 2022 many LDI pooled funds recapitalised. Recapitalisation is a restructure of a fund whereby debt is replaced by assets, providing more capital. Over Quarter 2 (April to June) 2022 gilt yields rose (the 10-year UK gilt yield moved from 1.62% to 2.25% from 31 March 2022 to 30 June 2022). In the instance of recapitalisation because of a drop in the value of gilt holdings, recapitalisation involves LDI pooled funds lowering their leverage ratio (gilt holdings against gilt market exposure) back to target leverage.

For an LDI pooled fund to return to target leverage, they would either sell assets (gilts) within the fund, which causes their gilt market exposure to fall, or receive an additional cash or gilt contribution from investors to maintain gilt market exposure. It is likely that a combination of the two took place in Quarter 2 2022. Both PIVs and direct investment holdings fell more for private sector DBH schemes than for the other scheme types.

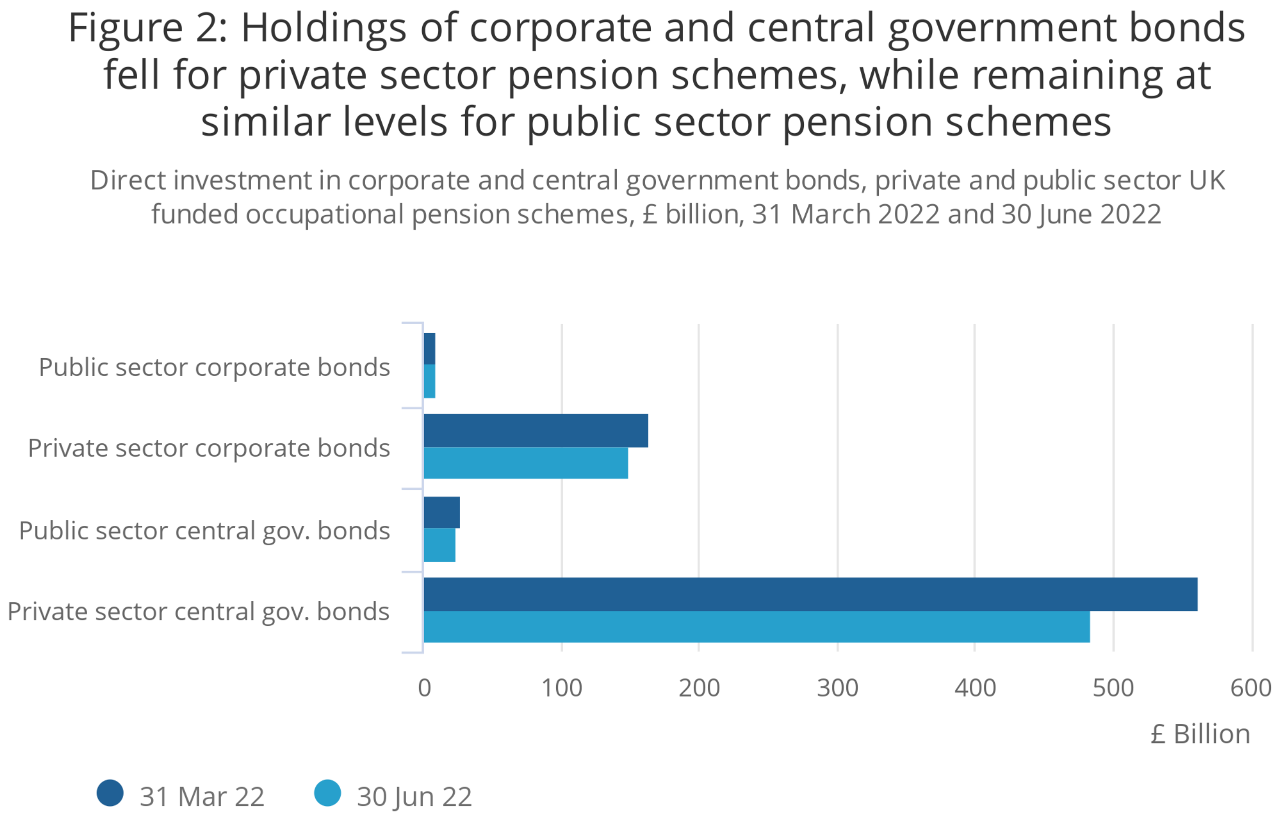
Private sector DBH schemes within the lowest membership size bands experienced the greatest drop in PIVs holdings. However, this movement may be impacted by sample variability. Approximately half of schemes in the second lowest membership size band are newly selected, while almost all schemes in the lowest membership size band are newly selected.

Direct Investments

Private sector schemes' direct holdings of central government bonds fell by 14% from 31 March 2022 to 30 June 2022. Over the same period, private sector schemes' holdings of corporate bonds decreased by 10%. Private sector scheme holdings of bonds decreased because of a fall in the price of bonds and a sell-off of bonds.

Figure 2: Holdings of corporate and central government bonds fell for private sector pension schemes, while remaining at similar levels for public sector pension schemes

Direct investment in corporate and central government bonds, private and public sector UK funded occupational pension schemes, £ billion, 31 March 2022 and 30 June 2022



Source: Financial Survey of Pension Schemes, Office for National Statistics

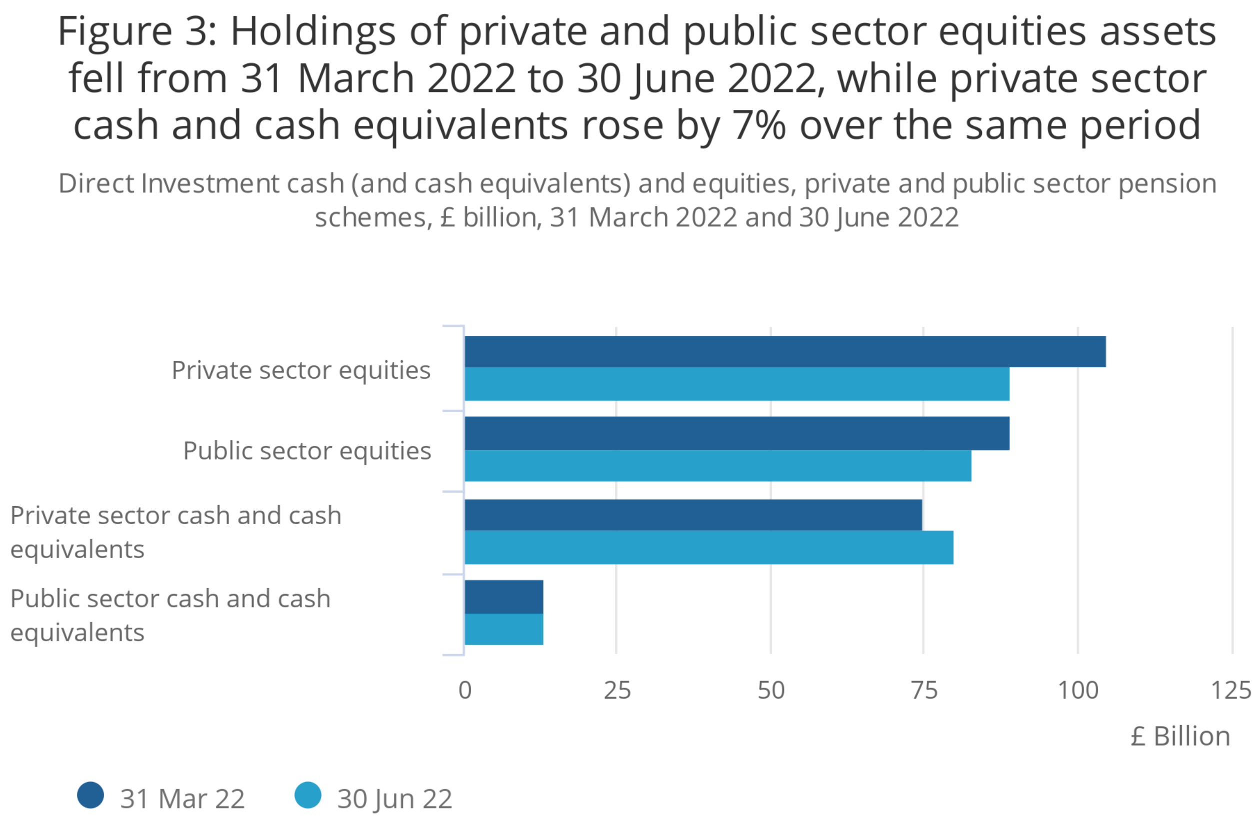
From 31 March 2022 to 30 June 2022 the 10-year UK gilt yield rose from 1.61% to 2.24%. Rising yields conversely mean a drop in the price of bonds (for definition please see Section 8: Glossary).

Therefore, to fund more collateral for LDI fund holdings, private sector schemes may have had to provide, or sell, assets such as central government bonds. Assets such as cash or gilts are likely to have been supplied to LDI pooled funds to return them to their target leverage.

Looking at other direct investment assets, private sector cash and cash equivalents rose from 31 March 2022 to 30 June 2022, while public sector cash and cash equivalents remained unchanged.

Figure 3: Holdings of private and public sector equities assets fell from 31 March 2022 to 30 June 2022, while private sector cash and cash equivalents rose by 7% over the same period

Direct Investment cash (and cash equivalents) and equities, private and public sector pension schemes, £ billion, 31 March 2022 and 30 June 2022



Source: Financial Survey of Pension Schemes, Office for National Statistics

A greater level of liquid assets held by private sector schemes may have come as a response to increased volatility in bond markets during the period, and warning signs related to LDI strategies. More liquid assets such as cash allows a scheme to respond to future uncertainty and collateral calls more effectively by not being forced to sell other assets at short notice.

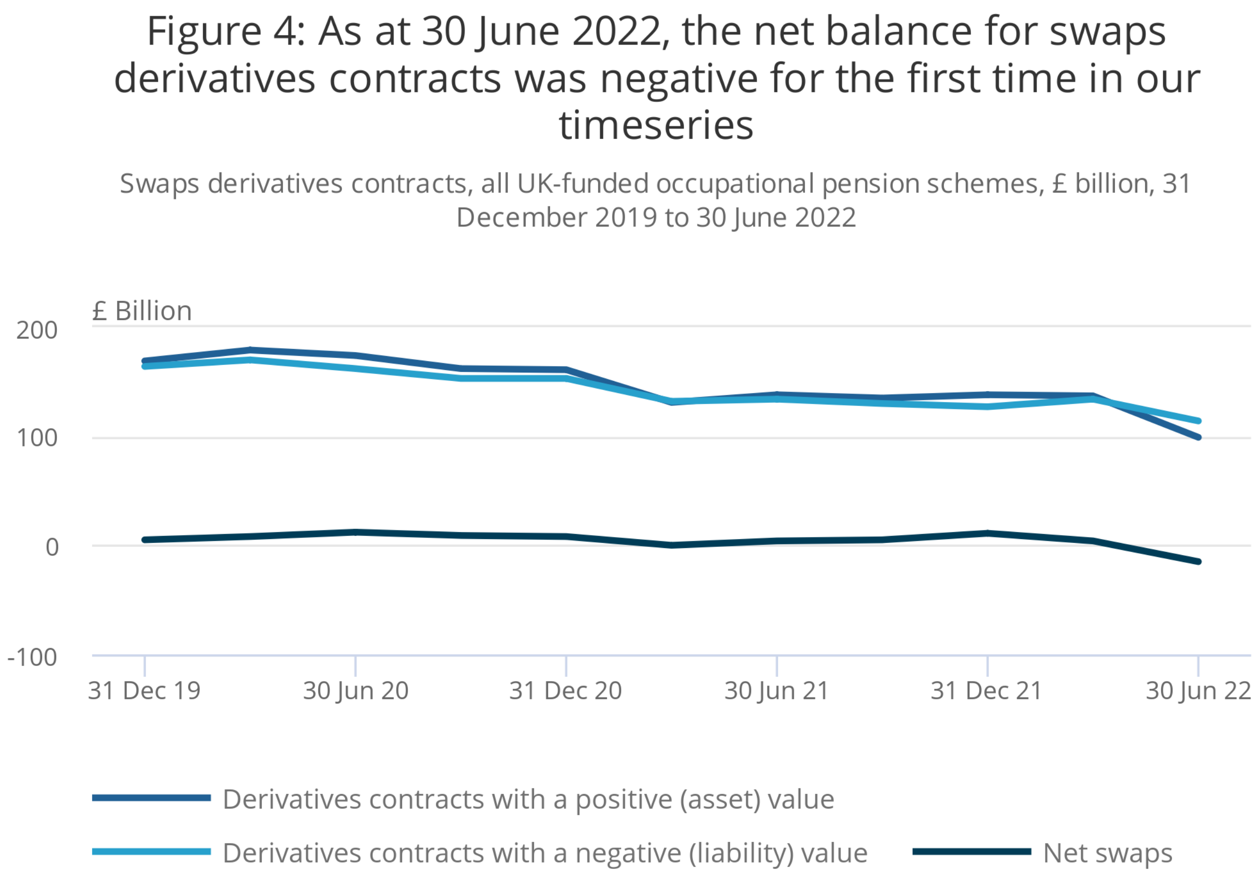
Direct investment equities fell for both private and public sector schemes. From 31 March 2022 to 30 June 2022 the FTSE all-share UK equity index fell by 6%, while the S&P 500 US equity index dropped by 16%.

As with other assets, the greater drop in equities for private sector schemes in comparison with public sector schemes may be explained by sell-offs of these types of assets in relation to LDI strategies. As such, the fall in private sector equities is likely a combination of falling prices and selling of equities.

4 . Derivatives

Figure 4: As at 30 June 2022, the net balance for swaps derivatives contracts was negative for the first time in our timeseries

Swaps derivatives contracts, all UK-funded occupational pension schemes, £ billion, 31 December 2019 to 30 June 2022



Source: Financial Survey of Pension Schemes, Office for National Statistics

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.

There are many forms of swaps contracts, such as interest rate swaps, inflation swaps, currency swaps, and credit default swaps. Certain swaps such as interest rate and inflation swaps form part of a pension scheme's LDI strategy. Most swaps are held by private sector defined benefit and hybrid (DBH) schemes.

Each sampled scheme returns with the summed value of all their 'in the money' swaps contracts representing their positive swaps balance as at the end of the quarter, and also for those that are 'out of the money' for their negative swaps balance. The decrease in both positive and negative swaps imply a drop in the overall level of swaps contracts in place. As can be seen in the reference table, other types of derivative contracts remained at similar levels.

Of contracts still held on 30 June 2022, there was a net negative balance for the first time in our timeseries. This can be interpreted as the net impact of derivatives contracts on funded occupational pension scheme's current assets.

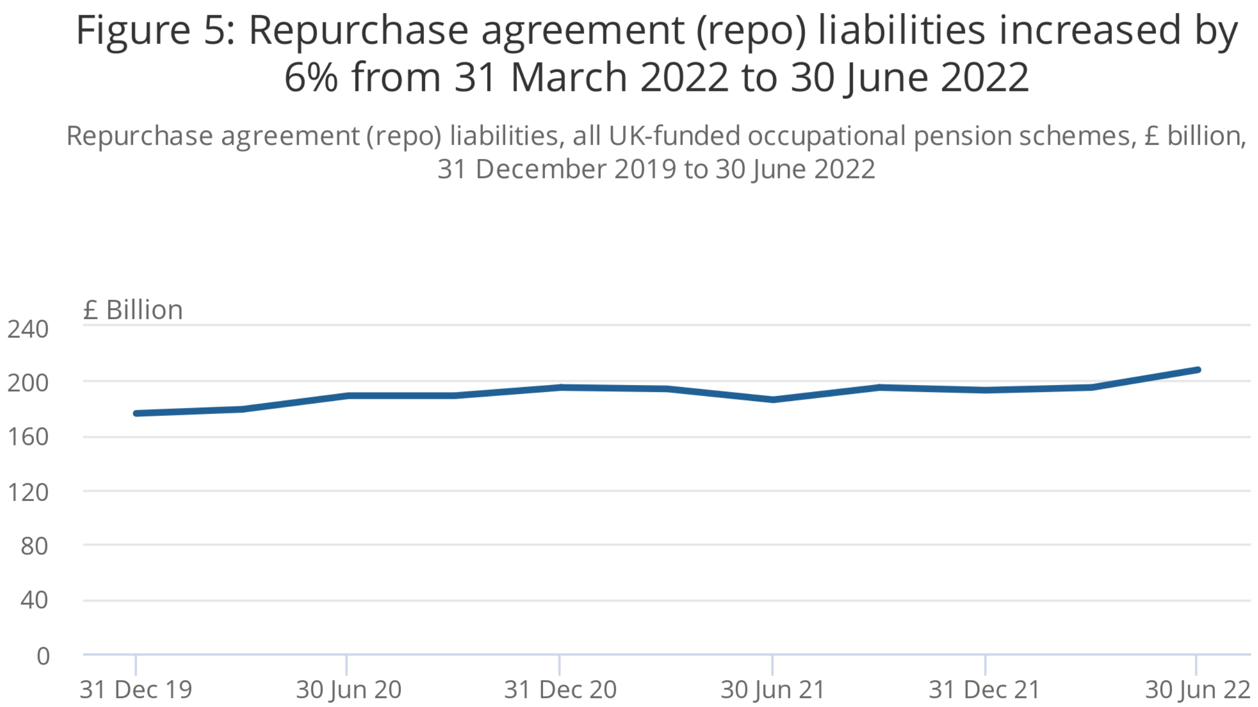
Correspondence with sampled private sector defined benefit and hybrid (DBH) pension schemes revealed that most of the swaps held are interest rate swaps relating to Liability Driven Investment (LDI) strategies. Typically interest rate swaps lose value if there are interest rate rises all other things being equal. Over Quarter 2 (Apr to June) 2022 the Bank of England base interest rate rose from 0.75% to 1.25%.

5 . Liabilities

There has been a relatively steady increase in repurchase agreements (repos) across the entire FSPS timeseries (for repos definition, please see our Section 8: Glossary). The change in repos liabilities from 31 March 2022 to 30 June 2022 represents the greatest percentage increase over the Financial Survey of Pension Schemes (FSPS) timeseries (6%).

Figure 5: Repurchase agreement (repo) liabilities increased by 6% from 31 March 2022 to 30 June 2022

Repurchase agreement (repo) liabilities, all UK-funded occupational pension schemes, £ billion, 31 December 2019 to 30 June 2022



Source: Financial Survey of Pension Schemes, Office for National Statistics

Repos may be used by schemes for greater flexibility as part of their Liability Driven Investment (LDI) strategy. Here, they can generate additional cash for short-term liquidity while still ensuring assets held track pension entitlement liabilities. Furthermore, this allows there to be no disinvestment from growth assets. Higher repo liabilities indicate an increase in borrowing.

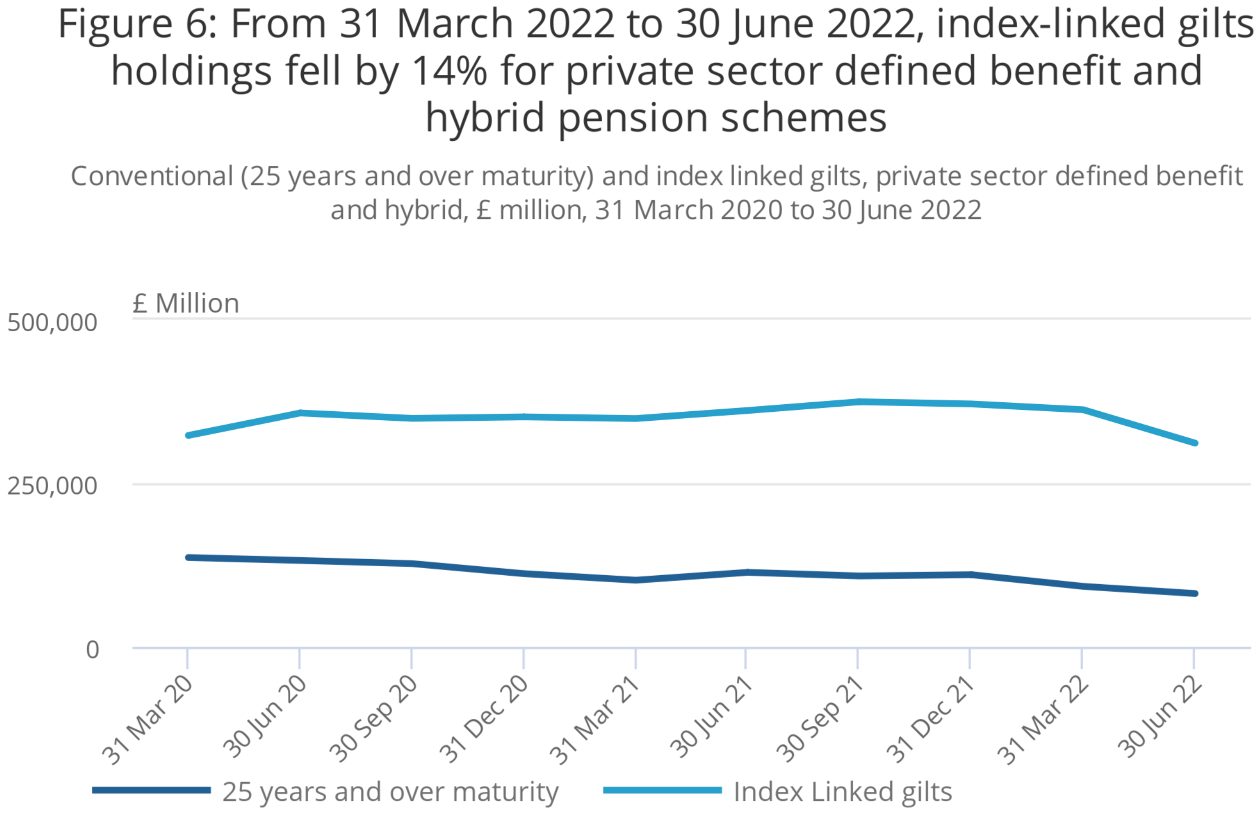
The quarterly movement from 31 March to 30 June 2022 stemmed from smaller private sector defined benefit and hybrid (DBH) schemes. Sample variability needs to be considered when interpreting these estimates. About half of schemes in second lowest membership size band are newly selected, while almost all schemes in the lowest membership size band are newly selected.

6 . Gilts

As of 30 June 2022, private defined benefit and hybrid (DBH) schemes decreased their holdings of longest-term Gilts (maturity of 25 years and over) by £11 billion compared with 31 March 2022.

Figure 6: From 31 March 2022 to 30 June 2022, index-linked gilts holdings fell by 14% for private sector defined benefit and hybrid pension schemes

Conventional (25 years and over maturity) and index linked gilts, private sector defined benefit and hybrid, £ million, 31 March 2020 to 30 June 2022



Source: Financial Survey of Pension Schemes, Office for National Statistics

There was also a considerable decrease in index linked gilts of over £51 billion in private sector DBH schemes, due to a combination of schemes selling off these bonds to provide liquidity as part of the recapitalisation of LDI pooled funds in which these schemes invest, and a fall in bond prices over the quarter. This followed a period of increased holdings over 2021 which may have been a result of rising inflation and inflation expectations.

This decrease in Quarter 2 2022 was most prevalent in the largest schemes by membership size band. The percentage of total gilts that are index linked remained relatively stable.

7 . Funded occupational pension schemes data

Funded occupational pension schemes in the UK
Dataset | Released 21 December 2022
Provisional data on membership, contributions, benefits, and balances of funded occupational pension schemes in the UK: July 2019 to June 2022.

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 equivalence

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, and 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 on their behalf) 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)

These pension 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.

Discount rate

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

Government managed pension schemes

Schemes classified as 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.

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).

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)

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

A full glossary of 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.

Revisions

A 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. Please note that all four quarters of 2019 will now not be subject to revisions. Data has been revised, partly because of late survey returns, and partly because of disaggregate data revisions.

Survey coverage

The Office for National Statistics (ONS) replaced the MQ5 Pension Funds Survey (PFS) 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" throughout the article but strictly speaking, these are government managed pension schemes (see Glossary).

There are no defined contribution occupational pension schemes for public sector employees, so there are three categories: public sector employee schemes, which are defined benefit and hybrid schemes, and private sector employee schemes, which may be further divided into defined benefit and hybrid and defined contribution schemes. See Section 8: Glossary for the FSPS definitions of these categories.

Response rates

The response rate for Quarter 2 (Apr to Jun) 2022 for the FSPS, at the period of closedown, was 79%. 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 2 2021 will not be subject to revisions.

10 . Related links

Funded occupational pension schemes in the UK QMI (Quality and Methodology Information) - Office for National Statistics
QMI | 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.

UK pension surveys: redevelopment and 2019 results
Article | Released 29 June 2020
Results from the new Financial Survey of Pension Schemes, which collects data from occupational pension schemes in the UK from April 2019. Results include employer and employee contributions, benefits, transfers, assets, and liabilities.

MQ5: Investment by insurance companies, pension funds and trusts: October to December 2018
Bulletin | 21 March 2019
Investment choices of financial institutions based on financial transactions (investments and disinvestments), including balance sheet data for short-term assets and liabilities, and income and expenditure data.

Financial Survey of Pension Schemes
Survey | Updated 23 June 2021
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 | 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.

11 . Cite this article

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