New Capital Consensus
A better investment system for all

The Trillion-Pound Question

How much money is in the UK Investment System?

Executive summary

Over the past few years, there has been a dawning realisation amongst politicians, regulators, various market actors, think-tanks, and commentators, that the investment system is not working as desired.[1] As it stands, 80% of UK investment derives from the private sector,[2] while the UK enjoys the 2nd largest pool of retirement capital amongst OECD countries.[3] And yet, despite such a large pool of capital sitting in occupational pensions, the rate of business investment in the UK is one of the lowest among OECD countries.[4] This juxtaposition – of a deep pool of return-seeking retirement capital with an underinvested economy – can only mean one thing: that the investment system is itself failing in its key task of allocating capital effectively from UK savers to the very economy in which these savers live their lives.

Key Findings

- **Data quality:** To undertake the proceeding analysis, we have had to utilise a wide range of data sources and reconcile significant differences between data sets to arrive at a set of credible figures. Simply put, data quality is extremely poor. This is not a sign of an effective and functioning system.
- **Private Defined Benefit (DB) pensions:** DB remains the largest pool of pension savings with significant declines in asset values since 2021 from a peak of £1,834 billion in Q4 2021 to £1,181 billion in Q1 2024, primarily due to the Liability Driven Instrument (LDI) crisis and re-pricing of assets values in an economic environment with higher inflation and higher interest rates.
- **Liability driven investment:** This has resulted in a real and permanent loss of capital from the balance sheets of private sector DB pensions, and despite the time that has passed since the crisis, there is no source of published data or regulatory exercise to show the extent to which there have been losses and where those losses have occurred.
- **Asset allocation:** There has been a significant shift in DB pension investments from equities to fixed income over the past 25 years.
- **Central government schemes, including the Local Government Pension Schemes (LGPS):** These manage assets of £547 billion including £391.5 billion in LGPS schemes in England and Wales, as of Q1 2024. These schemes have experienced stable growth, more exposure to risk assets and less exposure to lower risk fixed income assets.
- **Public sector pensions vs private sector pensions:** In comparing the relative performance of these two asset pools, public sector schemes have performed significantly better than private sector schemes.
- **Occupational Defined Contribution (DC) pensions:** DC pensions comprise a small but growing pool of capital (£288 billion) driven by auto-enrolment policies.
- **DC Master Trusts:** DC Master Trusts have experienced significant growth to approximately £193 billion as of Q2 2024, due to increased participation, again driven by auto-enrolment.
- **Stocks vs flows:** There is an assumption that the existing stock of assets can be moved around the system. This is not the case as parts of the stock of assets are essentially "locked-up" as they serve a specific purpose, which increases Government's challenge increating new investment flows into a more diverse set of asset classes.

Root Causes

These effects stem from several factors including:

- Post-Global Financial Crisis regulation that has been overly focused on the banking sector and neglected the broader investment system and its mediating function;
- Where regulation has occurred in private sector pensions, the emphasis has been on

'safetyism'—a regulatory stance prioritising systemic / balance-sheet safety over productive investment and return-seeking; and

- A misplaced belief that financial sector profitability equates to effectiveness from a societal/macro perspective.

A Systems Theory Approach

Numerous reports and reviews, including those from the Capital Markets Industry Taskforce and the Tony Blair Institute for Global Change, have examined parts of the investment system. However, a holistic perspective is crucial to fully understand and address its complexities. The UK investment system should be viewed as a complex adaptive system characterised by dynamic interactions and emergent behaviours. Effective policy must acknowledge the highly complex and interconnected nature of this system. To remedy systemic failures, interventions need to consider both stocks (accumulated pools of capital and assets) and flows (the activities that move money within the system).

This report aims to answer three key questions which we believe are crucial to making sure that regulation and policy is effective.

1. How much money is in the UK investment system?
2. How is this money distributed between pension funds and life companies?
3. What types of investments are savers' funds invested in?

It is worth highlighting how challenging getting a credible set of numbers to answer these questions is. There are disparate datasets from numerous government bodies that produce conflicting numbers as well as informational gaps across the system. Given how fundamental it is to know how much money there is and where it is invested, this seems like an issue that needs to be resolved with some urgency.

Current Analysis

Based on the Financial Survey of Pension Schemes (FSPS) produced by the Office for National Statistics (ONS), this report examines the stock of capital within the UK investment system that sits in occupational pensions for private sector DB, hybrid, and DC, central government schemes, including the Local Government Pension Schemes (LGPS), and we have drawn on a range of other sources for DC Master trusts and NEST. Headline figures for life companies are taken from the Prudential Regulation Authority (PRA) and subsequent research will undertake a detailed examination of life companies.

Key Statistics

- Total assets in Occupational Pensions (excluding DC pensions provided via an insurance company) of £2,209 billion, consisting of:

	Value (in billions)
Private Sector DB and Hybrid	£1,181 (as of Mar 2024)
Private DC	£288 (as of Mar 2024)
Local Government Pension Scheme for England and Wales	£392 (as of Mar 2024)
Central Government Schemes (including LGPS in Scotland and Northern Ireland)	£156 (as of Mar 2024)
DC Master Trusts (Including NEST)	£193 (as of Jun 2024)
Total	**£ 2,210**

- Private sector DB pension assets declined by 36% between December 2021 and March 2024.
- Private sector DC Pension assets increased two times from Q4 2019 to Q1 2024.
- Central government schemes, including the LGPS assets are £547 billion, with the LGPS in England and Wales accounting for the majority of these assets at £391.5 billion, these have a greater asset allocation towards equities and private market investments.
- DC Master Trust assets are growing fast, and assets now stand at approximately £193 billion as of June 2024.
- Life companies have assets of £2,581 billion, subsequent research will decompose these assets into more granular investment pools as life companies provide savers with pensions contracts e.g., Group Personal Pensions, as well as the role of buyouts and buy-ins.
- Total individual savings accounts (ISA) have assets of £726 billion consisting of £294 billion in cash and £431 billion in stock & shares.

Summary

The regulatory agenda of the past 25 years has focused on de-risking, without realising that systemic risks were building in the system. This regulatory 'safetyism' has hampered institutions' ability to channel capital effectively into the real economy, resulting in low productivity and lacklustre economic growth. Our analysis also underscores the challenge of answering the question – how much money is in the investment system – a vital starting point for policy makers – as knowing how much money is in the system is crucial for any government wanting to unlock the system's potential for productive investment. Coupled with this, a frequently overlooked point is that some of the existing stock of assets is "tied up" e.g., assets held to pay pensions via annuities. Consequently, the size of the stock of assets that is therefore available to be moved into productive investment, for example, is only a subset of the overall stock of assets in the system.[5]

About New Capital Consensus

New Capital Consensus is a not-for-profit coalition of non-commercial, apolitical organisations that have come together to explore how the current UK investment system contributes to the country's current problems of low productivity, inequality, and low levels of investment. Its objective is to find ways to release investment capital to address societal problems like those above and to green the economy.

We believe addressing these problems requires us to:

- Understand how the system operates holistically and as a complex adaptive system.
- Recognise the source of private investment resides fundamentally in consumers retirement savings.
- Develop a clear map of the system, an accurate view of system stocks and flows and the incentives driving flows of capital.
- Through this, identify the policy levers capable of redirecting system flows toward more productive uses, whilst simultaneously benefiting savers.

Our focus is not only on those beneficial policy changes that can be implemented within the current system but also, recognising that current market structures have developed in an amorphous way, that now requires changes to current market structures, market approaches and beliefs.

Glossary

AUM	Asset Under Management
BoE	The Bank of England
DB	Defined Benefit
DBH	Defined Benefit and Hybrid
DC	Defined Contribution
DWP	Department for Work and Pensions
FSPS	The Financial Survey of Pension Schemes
GPP	Group Personal Pensions
IPE	Investment & Pensions Europe
ISA	Individual Savings Accounts
LDI	Liability-Driven Investment
LGPS	The Local Government Pension Scheme
M&A	Mergers and Acquisitions
NCC	The New Capital Consensus
NEST	The National Employment Savings Trust
OECD	The Organization for Economic Co-operation and Development
ONS	The Office for National Statistics
pp	Percentage point
PPF	The Pension Protection Fund
PRA	The Prudential Regulation Authority
QE	Quantitative Easing
QT	Quantitative Tightening
SIPP	Self-Invested Personal Pensions
TPL	The Pensions Regulators' Estimates of Liabilities
TPR	The Pensions Regulator
VCT	Venture Capital Trust

Introduction

The UK has a large and deep pool of capital sitting in occupational pensions. However, the asset allocation of this resource tends towards low-risk and low-yielding investments. The knock-on effects of this failure to translate UK pension capital into UK economic investment are well known. Exacerbated by the decline of the UK as a proxy global listing venue (as foreign states have developed their own national listing venues), one effect of the disconnect is the slow demise of the London Stock Exchange and the failure of the UK's growth exchanges to expand as they might have done.[6] UK pensioners have missed out on the opportunity to support the very businesses that employ and service them; while the UK economy has missed out on the capital needed to make the sustainable and strategic changes needed to maximise the UK's competitiveness (especially post-Brexit).[7] The disconnect has led to systemic crises of its own. But more than all of this, it has limited the investment returns available to UK pensioners at the precise time pensioners are having to finance longer more expensive lives against the background of declining state support.[8]

The roots of the growing disconnect are equally well known. A series of well-intentioned policy interventions have forced a decline in private sector DB pension[9] provision over the last 15 years;[10] while a *laissez faire* approach to financial markets (from across the political spectrum) has mistaken the financial sector's profitability for its effectiveness. This logic of financialisation has maintained that as long as the UK financial sector is profitable and a positive contributor to GDP, then it must be functioning properly. However, this is a false equivalence, and profitability (for the system itself) and effectiveness (for the society the system is meant to serve) are frequently different outcomes.[11]

Added to this is the fact that in the wake of the Global Financial Crisis, banking – not investment – has been the main regulatory focus with most other parts of the financial system being ignored or (worse) considered only relative to banks – as 'non-banks' threatening systemic riskiness. Policy and regulation in pensions have viewed risk at the micro-level of the pension scheme to the exclusion of systemic risk, and to the exclusion of other policy objectives. While this has left balance-sheet entities like banks and insurers in a more resilient shape, it has also led to the rise of 'safetyism' in pensions and insurance policymaking – the assumption that regulatory bodies can and should remove risk from the UK's retirement capital in the best interest of savers and the system.[12] 'Safetyism' has in turn led to large pools of capital being held in low-risk, low-yielding assets, instead of being invested productively. Whilst de-risking the investment strategy and developing a glide-path to buy-out may make absolute sense for the Trustees of an individual pension scheme, it makes less sense at a system level.

The realisation that the UK investment system is not working – and that on more than one occasion has gone terribly wrong – has now dawned. In the past few years, we have seen the establishment of the Capital Markets Industry Taskforce to examine the role of poor investment flow in the decline of the London Stock Exchange; the Tony Blair Institute for Global Change report on investment and savings; The Pensions Review of the Institute for Fiscal Studies; *Unlocking Productive Investment* by New Financial, and the Resolution Foundation's *Economy 2030 Enquiry*. From the previous government, we have seen The Edinburgh Reforms, the Mansion House Compact, and an ongoing tussle to revise Solvency II into a more productive asset allocating 'Solvency UK', and with the new government the announcement of a review pensions with a view to boosting growth.

All these reviews and analyses are needed but, with so many policy remedies aimed at so many different parts of the system, we believe the complexity of the investment industry when viewed as an interconnected system rather than as a series of adjacent individual sectors, requires a holistic view of the entire system to determine which solutions will be

most appropriate. The objective of this approach is to ensure that any suggested solution comprehensively considers the repercussions it may have on other parts of the financial system, the financial system as a whole and the society in which we live, even as that solution addresses a specific problem. Cutting across many of these reviews is a common desire to move money from one part of the system to another (for example, increasing funds available to early-stage businesses or to making the significant investments needed to transition to a low-carbon and climate resilient economy). However, these reviews often fail to view the system's sources of capital i.e., money coming from savers, in the round (or even in competition with one another for share of capital). They also use numerous and varying statistics and figures, drawn from multiple sources, to quantify the UK's available capital and its precise location within the system.

1. The Aim of This Report

This paper is the second report of the New Capital Consensus, and it seeks to address this latter shortcoming by simply seeking to answer the question how much money is in the UK investment system, and where precisely is it located?

The aim of this report is threefold: first, to try and answer the question, how much money is in the system; second, to attempt to show the distribution of investments held in occupational pensions (excluding those provided by life companies) across different institutional forms e.g., DB, DC, Master trusts etc; third to look at what types of instruments pension funds are invested in e.g., equities, government bonds etc.

While this seems like a simple starting point, it is much more difficult than we could have ever anticipated. There are multiple sources and values for how much is invested in pensions. There are also major difficulties in being able to clearly identify the stock of assets in pensions or insurance without double-counting e.g., some pension assets sit in insurance. Data quality is extremely variable. Depending on which data sources are used, the system either has a surfeit of assets that can be readily re-deployed more effectively into the real economy or there is much less than is commonly assumed. At the same time, in many of the analyses that we have read, there is an implicit assumption that, regardless of where capital currently resides or indeed the amount of capital in the system, all capital can be re-purposed and re-deployed at will.

The aim of this report is therefore to try to establish a reasonable estimate of the stock of assets in occupational pensions, and to show what asset classes this money is invested in, acknowledging where there are limits and data gaps in our estimates. We believe this is fundamental to building effective policy based on a better understanding of where interventions are needed. If a policy is based on a view of the system that over-estimates how much money is in the system, or that all money can be easily moved around the system, then that policy is likely to fail or have significant unintended consequences.

2. The UK Investment System

According to the textbooks, the UK financial system (like *any* financial system) is designed to facilitate payments, saving, and investment; to provide market liquidity and accurate and cost-efficient price discovery; and to allow institutions and individuals to manage risk.[13] The investment system should enable capital formation by efficiently pooling individuals' savings and allocating this capital to the real economy e.g., investment in companies, from which jobs and growth are created. From the provision of this capital, investment returns are generated, and these returns are used to meet the goals of the providers of this capital. As part of this activity, the investment system should also support individuals with risk bearing and to manage the risks associated with uncertain outcomes e.g., saving for retirement, as well as the general uncertainties that exist in investment more generally. This process should also be one where, through time, capital is provided to new and emergent companies and sectors, while older and less successful businesses either plateau or decline. In this way, there is a flow of money from savers to the real economy through time, and from the real economy back to savers.

In brief, the investment system's chief function should be to effectively allocate and deploy funds from savers to the real economy via the UK government and the corporate sector – or, as the 4th Baron Jacob Rothschild famously noted with even more brevity, "to move money from A, where it is, to B, where it is needed."

The problem is that the UK investment system (again like *any* system) was neither designed in the first instance – but has rather emerged over time; nor is it geared towards the needs of savers as – but is a system that is geared towards its own ends. The UK investment system is not a simple piece of plumbing that policy can use to deliver outcomes (moving money from A, where it is, to B, C, D or E where policy identifies a need), but is rather more interconnected; more complexly constructed and motivated; and operates to preserve the status quo to a greater extent than many policy initiatives anticipate.

3. A Systems Theory Approach

The UK investment system is a classic case of what Systems Theory terms a "*complex adaptive system*." Such systems, whether societies, economies, or ecosystems, are typically comprised of dynamic networks of numerous agents acting in parallel, but also constantly acting and reacting to what other agents are doing. Complex adaptive systems are therefore characterised by both 'self-organisation' (the ability of the system to structure itself, to evolve and to learn - via 'feedback loops') and 'emergence' (where the behaviour of the system as a whole becomes greater than that of the sum of its parts) often leading to unexpected behaviours and outcomes that cannot easily be predicted at the agent level. As Dana Meadows explains:[14]

> **"Complex adaptive systems are nested; they exist as systems within systems. Each layer of these systems is coherent within itself and capable of interacting with systems at higher and lower levels. Each part of a complex adaptive system is in constant learning, adaptation, and evolution, and the system itself is capable of self-organisation and emergence."**

The control of such systems therefore tends to be highly dispersed and decentralised meaning that these systems are as resistant to 'silver-bullet' policy solutions as they are adept at circumventing 'siloed' ones.[15]

By way of response, Systems Theory itself seeks to provide a vital approach for interpreting the non-linear interactions and emergent behaviours of "complex adaptive systems". It does so by looking at systems holistically; acknowledging that the parts of a system can interact in complex ways that are not immediately apparent; and assuming a system will seek to preserve its *status quo*.

This means that Systems Theory's policy interventions, the 'levers' it proposes putting into systems, are less likely to warp and more likely to work precisely because they are designed to accommodate the messy reality of "complex adaptive systems". Other policy approaches all too often fail because they operate the other way round – designing rational and elegant solutions that presuppose equally rational and elegant systems that in reality do not exist. Systems-based policy solutions are also often more fundamental in nature, proposing changes *to* systems as well as changes *within* them, and targeting often sacred 'ways of doing things', practices and even belief systems and 'false axioms' or 'false archetypes' that other policy approaches leave as unquestioned 'givens' or 'assumed truths'.[16]

To begin its analysis, Systems Theory turns to the fundamental concepts of 'stocks' and 'flows' to describe how systems are structured and how they operate:

- A stock is the element of a system that has accumulated over time and is stored within the system. It represents a reservoir of resources, energy, or material that has built up and can be depleted or added to. Stocks are the foundation of any system, providing memory of past conditions because their level is influenced by the history of their changing over time. Stocks change over time through the flow of resources into or out of them.
- Flows are the rates at which stocks are added or subtracted. They are the activities or processes that can fill up or drain the stock. Flows are like taps that can be turned on to increase the stock or drains that can be opened to decrease it. They represent how other parts of the system can influence the stock.

In terms of the investment system, 'stocks' are the accumulated pools of capital that have been invested in a particular asset class e.g., government debt or private equity. DB pensions, DC schemes, and bank and insurance company balance sheets are therefore all 'stocks' of capital that have been invested in the past.

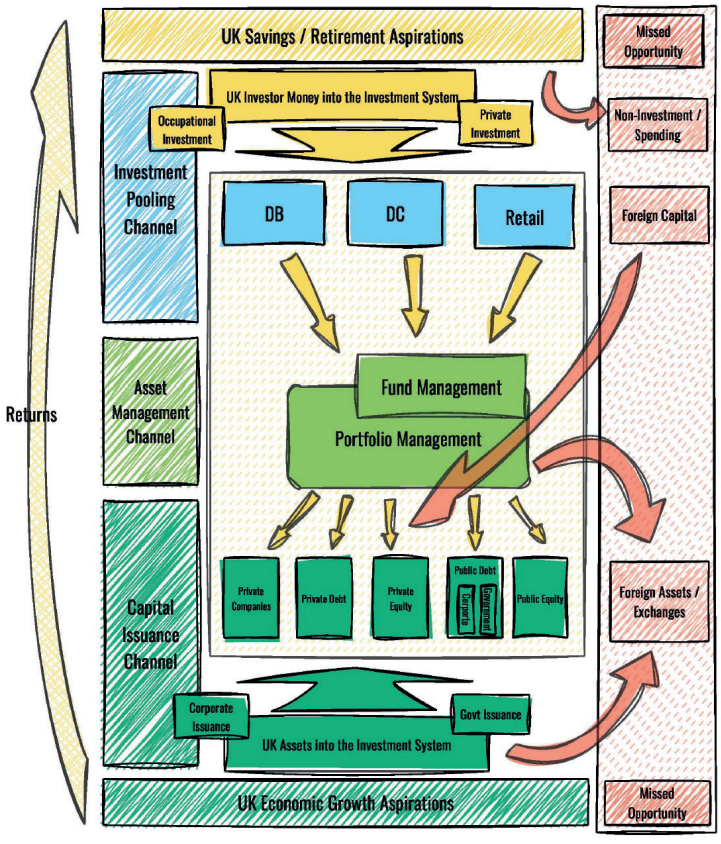
The 'flows' of the investment system can be split into three categories, flows into the system, flows within the system (including investment returns), and flows out of the system. Flows *into* the system are for example new contributions from savers into a pension fund which are invested on behalf of savers. Flows *within* the system are where there is a change in asset allocation, whether a strategic asset allocation or as a result of regulatory changes. Flows *out* of the system are where money is returned to savers e.g., the payment of pensions in retirement.

It is crucial to note, and a point that is often missed, that the existing stock of assets is often viewed as readily available to be repurposed for investment in other assets e.g., infrastructure. This is not actually the case, as parts of the existing stock of assets are "tied up" or "pre-allocated", e.g., assets that are used to pay an annuity via an insurer or buy-in with an insurance company in pensions have specific aims within the portfolio that pre-determines the asset allocation. The size of the stock of assets that is ultimately available

to be moved into productive investment is only ever a subset of the overall stock of assets in the system. However, new flows into the system via contributions and insurance premiums are meaningful, and so government should be focused on both the stock and flow, but much of the discussions to date seem more focused on the existing stock of assets.

While later reports will focus on the specific 'flows' that govern the behaviour of the UK investment system, this paper focuses on the 'stocks' of capital as they exist today.[17]

Figure 1: Map of UK Investment System



4 How Much Money Is There In UK Pensions?

A key part of understanding systems dynamics is to be able to understand the stocks and flows within that system. In the case of the UK investment system, our starting point is to try and answer the question "how much of savers' money sits in pensions and life insurance?" To start our analysis, we examine the amount of capital held within pension schemes. This analysis is looking specifically at funded pensions, and so private sector DB, DC, DC Master Trusts, and Central and Local Government Pension Schemes. Our main source for this analysis is the FSOS produced by the ONS. There are other sources which we could base our analysis on such as the Pension Protection Fund (PPF) 7800 Index or The Pensions Regulator's (TPR) scheme returns data. However, each source, including the ONS data has limitations.

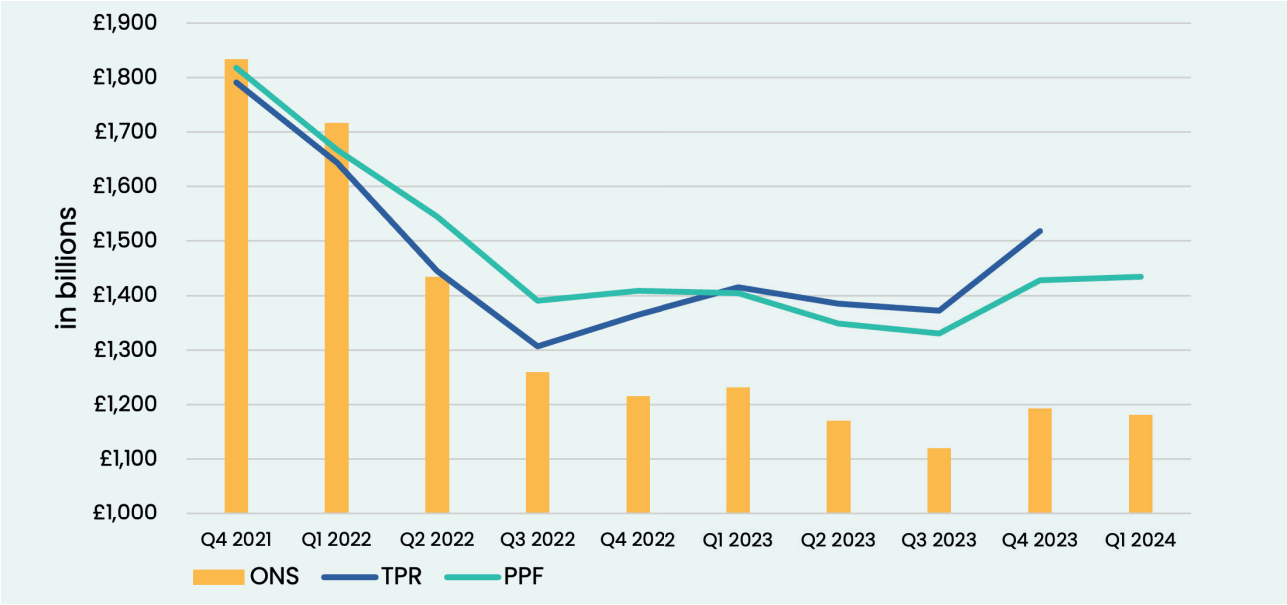
We therefore first set out why we are relying on the FSPS, acknowledging its limitations, and set out why the PPF 7800 Index and current scheme return data from TPR create a false impression of the total value of scheme assets sitting in defined benefit pensions.

For well over 30 years, the ONS has collected data on DB and DC pension schemes in the UK. Historically, this was produced as a dataset called MQ5. The MQ5 dataset was discontinued in 2017, and from 2019 onwards the ONS produced the FSPS. This survey is a stratified survey of pension schemes to ensure that there is a broadly representative sample that can approximate the overall position of the assets held by UK pension funds, excluding DC Master Trusts and DC pensions provided by an insurance company e.g. a GPP. The first thing to note is that the ONS does not currently survey the value of the liabilities of the pension scheme and so the FSPS on its own cannot tell us anything about how the funding of DB pensions may be evolving. However, while the data operates with a lag of around 6 months, crucially for DB pensions, the survey captures portfolio rebalancing, leverage, derivatives, and repo all of which are important in understanding the value of assets in DB schemes. For DC, this is a much more straightforward exercise as leverage, derivatives and repo do not feature.

The PPF 7800 Index was first published in 2007, and at a time when there were circa 7800 DB schemes in the UK. Since then, there has been a steady decline of schemes either through schemes entering the PPF, scheme sponsors changing due to M&A, or schemes moving to an insurer via buyout. Currently, the PPF universe captures around 5050 schemes. The PPF 7800 Index is released monthly, and its modelling of assets is based on a "roll-forward" methodology which takes an assumed asset allocation with some adjustments for price movements in assets. However, this methodology does not capture portfolio rebalancing, leverage, derivatives and repo, but does capture changes in PPF liabilities – PPF liabilities are smaller than the full liabilities of the scheme, as any scheme entering the PPF pays PPF benefits, which are reduced compared to full benefits.

For the TPR scheme returns data, these are actual scheme returns of triennial valuations, which may be reported as much as 15 months after the valuation date, so when TPR receives these, they present the "true" picture of where the scheme was at that earlier point in time. However, these returns come to TPR in tranches and so much of the data held by TPR is old, with the most recent Tranche 17 data ending in September 2022.[18] Any adjustments made do not adequately capture the volatility and impact of 2022.

Figure 2: Overall Scheme Assets as estimated by TPR, PPF, ONS



Much of the data from TPR is therefore stale and crucially misses the LDI-induced gilt market crisis and the fallout from that.

It is also worth highlighting that prior to 2022, the asset values of the ONS, PPF, and TPR, were all in broad agreement as to the assets held in DB schemes until the end of 2021. As Figure 2 above shows, the divergence really begins at the start of 2022, which is the period over which interest rates rose rapidly, the LDI crisis occurred, and these differences persist from this point in time.

As a result of the comparisons above, we have therefore chosen to base our analyses on the FSPS. We believe these data give the most up-to-date view of the assets held by private sector DB schemes, and crucially captures portfolio rebalancing, leverage, derivatives and repo, all of which have been material to DB schemes over 2022 and into 2024 with the LDI induced crisis. The FSPS survey questionnaire captures but does not publish data on realised and unrealised gains and losses for the asset classes used by DB schemes. This will also allow us to undertake a comparative analysis of the overall funding position of the defined benefit pensions part of the system and highlight issues with some of the prevailing narratives and analyses that are currently in circulation.[19]

Total Market Value of Assets in Pensions

Understanding the total amount of money within the system necessitates a thorough comprehension of the classification of pensions in the UK. This understanding is essential for accurately assessing the financial landscape and informing subsequent evaluations and policy considerations.

Figure 3 overleaf, illustrates the classification of UK pension funds and their investment strategies. In this report, we focus on occupational pensions, namely (i) DB, (ii) DC and (iii) hybrid pension schemes, which all allocate their investments through either direct investment or pooled investment mechanisms. In pooled investments, investment managers consolidate investors' savings into a collective investment fund and allocate capital accordingly, whereas, in direct investments, managers invest investors' capital directly.[20]

Figure 4, overleaf is derived from the Financial Services Pension Scheme (FSPS) and illustrates the aggregate market values for different types of pension schemes in the UK, over the period Q4 2019 to Q1 2024. The table distinguishes between private sector DB pensions, including hybrid arrangements (DBH), private sector DC pensions which are DC pensions that are not provided via DC Master Trust or via life companies e.g., GPP, and the Local Government Pension Schemes (Public DBH).[21] This gives us the total amount of pensions assets excluding DC Master trusts.

As Figure 4 shows, the market values of private sector DBH is the largest pool of pensions savings across these different pension structures. In Q4 2021,

Figure 3: Classification of UK Pension Funds

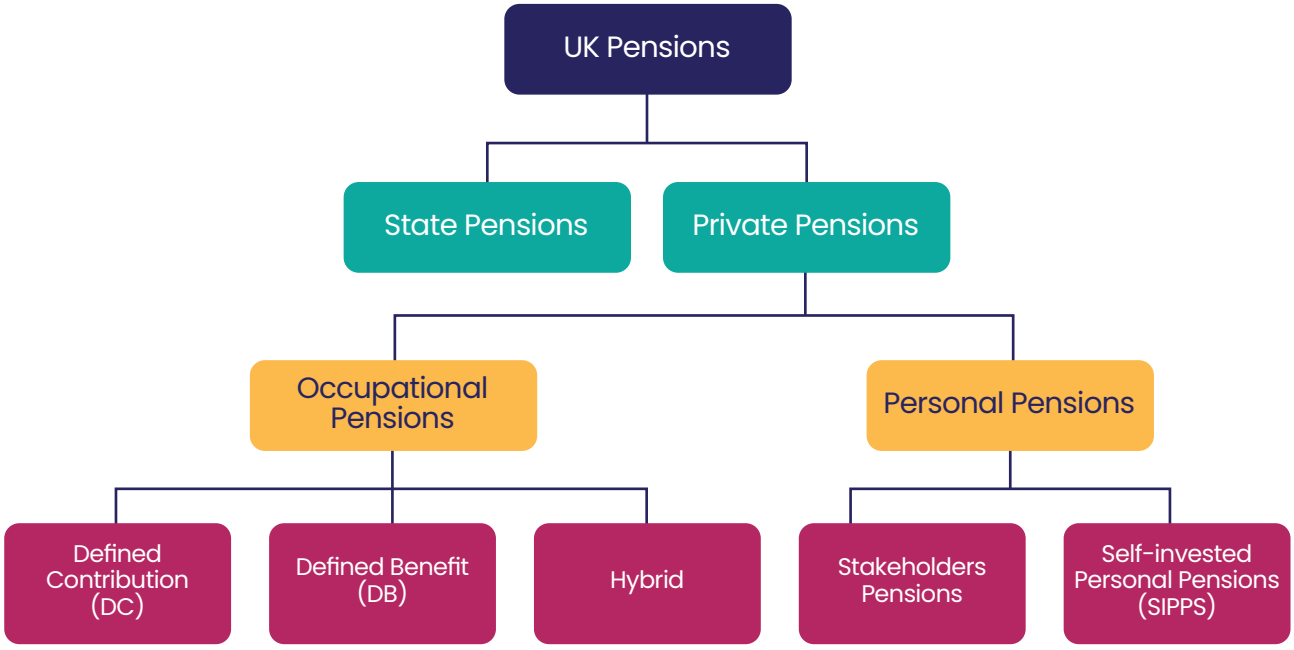
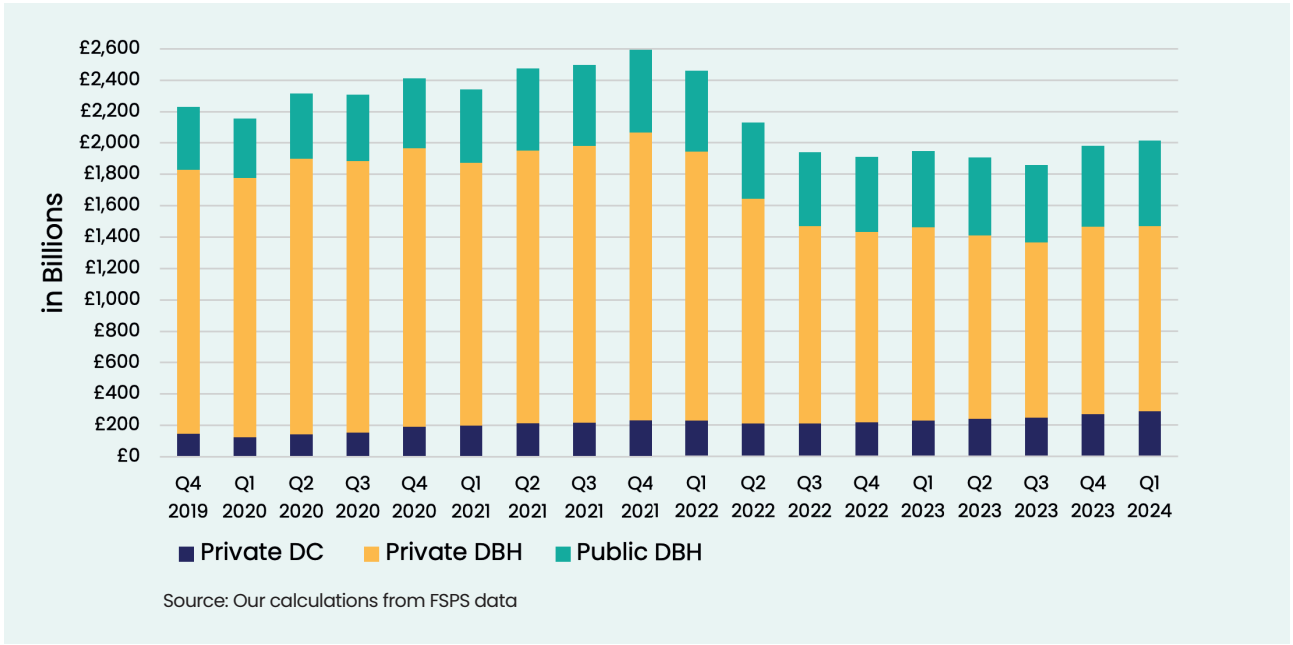


Figure 4: Total market value of assets in occupational pension funds



Source: Our calculations from FSPS data

the market value of Private DB schemes peaked at approximately £1,834 billion of assets but has declined significantly since. For DC pensions, although modest in comparison, it is a small but growing pool of assets, reflecting the relatively modest amounts of money that flow into DC via contributions compared to DB, but also the fact that the scale and compounding effects of DB dominate even though most private sector DB schemes are now closed.

Table 1 shows the highest, lowest, and current assets for the period of 2019-2024 in private DB, DB and Public DBH pension schemes. The highest value of assets for Private DB pensions was £1,834 billion in Q4 2021. By Q1 2024, this value had decreased by £653 billion. This decline has been largely caused by the LDI crisis and repricing of gilts and fixed income more broadly in a higher interest rate environment.[22] Looking at the data for private DC, we find the highest was £288 billion in Q1 2024, which is the latest value available. The lowest value during the analysed period was £125 billion in Q1 2020. The growth trajectory of DC pensions suggests increasing contributions and investment returns, likely driven by auto-enrolment policies. The highest value for Public DBH pensions was £547 billion in Q1 2024. The lowest recorded value was £377 billion in Q1 2020, with the latest value at £547 billion as of March 2024. The relative stability and growth in this category can be attributed to the nature of public sector pensions, which often benefit from more stable funding sources and government guarantees.

For Public DBH, which includes the £391.5 billion LGPS, these assets show a steady growth, which reflects three factors. First, these schemes are open to new members and future accrual, and have a lower exposure to fixed income and gilts. Second, because these schemes are open to new members and future accrual, these schemes avoided LDI. Third, these schemes are not regulated by TPR and so operate in a completely different regulatory framework to private sector DB. It is worth noting that while there are few open schemes in the private sector, we have seen significant declines in assets in open DB schemes where portfolio de-risking was undertaken, that fall under the regulatory ambit of TPR e.g., USS. The primary driver here therefore appears to be regulatory as opposed to schemes being open or closed.[23]

As of the end of 2019, collectively these three classes of funds held a combined total of £2,231 billion of assets under management and peaked at around £2.6 trillion of assets at the end of 2021. However, from the start of 2022, there has been a significant decline in the total market value of assets driven by the declines in the asset values of private sector DB and for the latest quarter of data available, there is now £1,967 billion of assets across private sector DB, DC, and the LGPS. The ONS reports a fall in the market value of private sector DB assets of some £653 billion (36%) from December 2021 to March 2024.

What Does This Mean for Scheme Funding?

As we have set out in both the introduction to this paper and in the initial discussion about different values for what assets sit in DB pensions in the UK, Table 2a overleaf, shows the difference between TPR and ONS asset estimates, as well as the change in TPR's estimate of Technical Provision liabilities.

In terms of changes in assets, TPR estimates that assets have declined by some 15.2%. However, the ONS asset values over the period have declined by 34.9%.

In looking at TPR's estimates of liabilities (TPL), there is a 37.9% decline over the period. This reflects the significant increases interest rates over between 2021 to December 2023, and so the present value of the liabilities has declined.

The final, and arguably most important part of Table 2a, is the differences in scheme funding. Scheme funding is calculated as the ratio of assets to liabilities. In looking at TPR's funding estimate at the end of 2021, this was around 103%, and by the end of the sample period, this had become a surplus of 127.4% funded, suggesting a change of 23.3% over the period as indicated in the final column of Table 2a. However, if the same analysis is done using ONS assets, then the aggregate funding position of DB has hardly changed. If the ONS asset values prove to be closer to reality than the TPR values, then there are considerably fewer assets in private sector DB pensions than is often reported in the press and in other analyses, many of which are being used to base policy on.

Table 1: Highest/lowest value and recent value in pension scheme (in billions)

Type	Highest Value (year)	lowest value (year)	Latest value (Mar 2024)
Private DBH	£1,834 (Q4 2021)	£1,120 (Q3 2023)	£1,180
Private DC	£288 (Q1 2024)	£125 (Q1 2020)	£288
Public DBH	£547 (Q1 2024)	£377 (Q1 2020)	£547

Table 2a: Comparison of TPR and ONS scheme assets between and implied scheme funding

	Dec-21	Mar-22	Jun-22	Sep-22	Dec-22	Mar-23	Jun-23	Sep-23	Dec-23	Change
Assets (£ billions)										
TPR	£1,791	£1,644	£1,445	£1,307	£1,365	£1,415	£1,385	£1,372	£1,518	-15.24%
ONS	£1,834	£1,717	£1,434	£1,259	£1,215	£1,231	£1,170	£1,120	£1,193	-34.95%
Liabilities (TPR) (£ billions)										
TPL	£1,734	£1,579	£1,372	£1,185	£1,161	£1,203	£1,124	£1,077	£1,192	-37.90%
Funding Ratio (Assets/Liabilities)										
TPR	103.3%	104.1%	105.3%	110.3%	117.6%	117.6%	123.2%	127.4%	127.3%	23.30%
ONS	105.8%	108.7%	104.5%	106.2%	104.7%	102.3%	104.1%	104.0%	100%	-5.37%

Table 2b: Analysis of TPR asset and liability revisions in December 2024

	2023 methodology	2024 methodology	Difference
Assets (£ billions)	£1,415	£1,281	-£134
TP liabilities (£ billions)	£1,236	£1,094	-£141
Funding level	115%	117%	+2pp

Table 2c: Relative changes to TPR and PPF liability revisions

	Liabilities (billions)		Difference (billions)	
	Old	Revised	Absolute	Relative
TPR	£1236	£1094	£142	-11.5%
PPF	£1046	£1032	£14	-1.3%
Relative difference (PPF/TPR)	**-15.4%**	**-5.7%**		

Table 2d: Benefits paid by DB pensions

	2021/2022	2022/2023	2023/2024
Benefits paid (£ billion)	£48.3	£48.8	£51.6

Recent Developments

As of December 2024, there have been significant revisions to the asset and liability values of both TPR and PPF and this has brought the asset values reported by both TPR and PPF closer to those reported by the ONS.[24] However, the revisions that are being made in terms of how and why are difficult to pin down. While the asset values reported by the PPF are now broadly in line with those of the ONS, there remains a not insignificant gap between TPR's revised asset values and ONS asset values. At the same time, TPR has also made significant downward revisions to their estimates of TP Liabilities. Assets have therefore been reduced by £134.2 billion, while estimated liabilities have also been reduced by a similar amount, some £141.66 billion. The net effect of this is to suggest that despite revisions to assets, the net funding position of DB schemes remains largely unchanged. This is set out in Table 2b.

In sense-checking whether the changes to the liability values produced by TPR are plausible, there are several ways to do this. The first is to compare TP liabilities, estimated by TPR, to PPF liabilities. This is instructive, as PPF liabilities should always be less than those of TPR, as PPF benefits are less than full pension benefits.

In looking at the old liability estimates from March 2023, the relative difference between TPR liabilities and PPF liabilities was around 15%. Such a difference is not unreasonable and is consistent with historical experience. For this difference to now be just 5.7% does not seem plausible.

In setting out 'why' TPR has had to make such significant revisions to their liability estimates, there are two reasons put forward. The first is that they have not been adjusting liabilities for pensions in payment i.e., benefits paid and so have been systematically over-stating liabilities. The second reason given is that they have refined their "roll-forward" methodology for liabilities. In looking at the first reason, benefits paid have not been captured, we can see what the estimates for this are in Table 2d.

As Table 2d shows, benefits paid are circa £50 billion per annum. However, schemes are also still accruing liabilities which are estimated to be around £20 billion per annum.[25] It does not seem that plausible figures of this magnitude are adequate to justify the revisions made. Ultimately, the vast majority of any change in liabilities is due to underlying actuarial assumptions, which are not visible nor are they transparent. The nature of how and when revisions occur also lacks transparency, as many of the revisions were to 2023 estimates, but these are "reported" in December 2024. While there is a rationale presented for the revisions, none of this is transparent nor timely, and underscores just how challenging it is to answer a basic question such as 'How well funded are DB schemes?'. Given the increasing emphasis placed on DB surpluses as a cornerstone of government policy, it does not feel like a question that can be answered with confidence.

Asset Allocations

We discuss the categories of pension schemes i.e. private sector DBH, public sector DBH and private sector DC including their asset allocation. Figure 4a overleaf, shows the asset allocation of pension schemes from 2000 to 2017 obtained from the ONS statistical release of MQ5. While MQ5 is not directly comparable to the FSPS (see Figure 4), there is one key trend that emerges, which is the move away from risk assets such as equities to fixed income, a trend which is further illustrated in Figure 4c, and shows just how significant investments by DB schemes into government debt have become.[26]

Private Sector Defined Benefit (DBH)

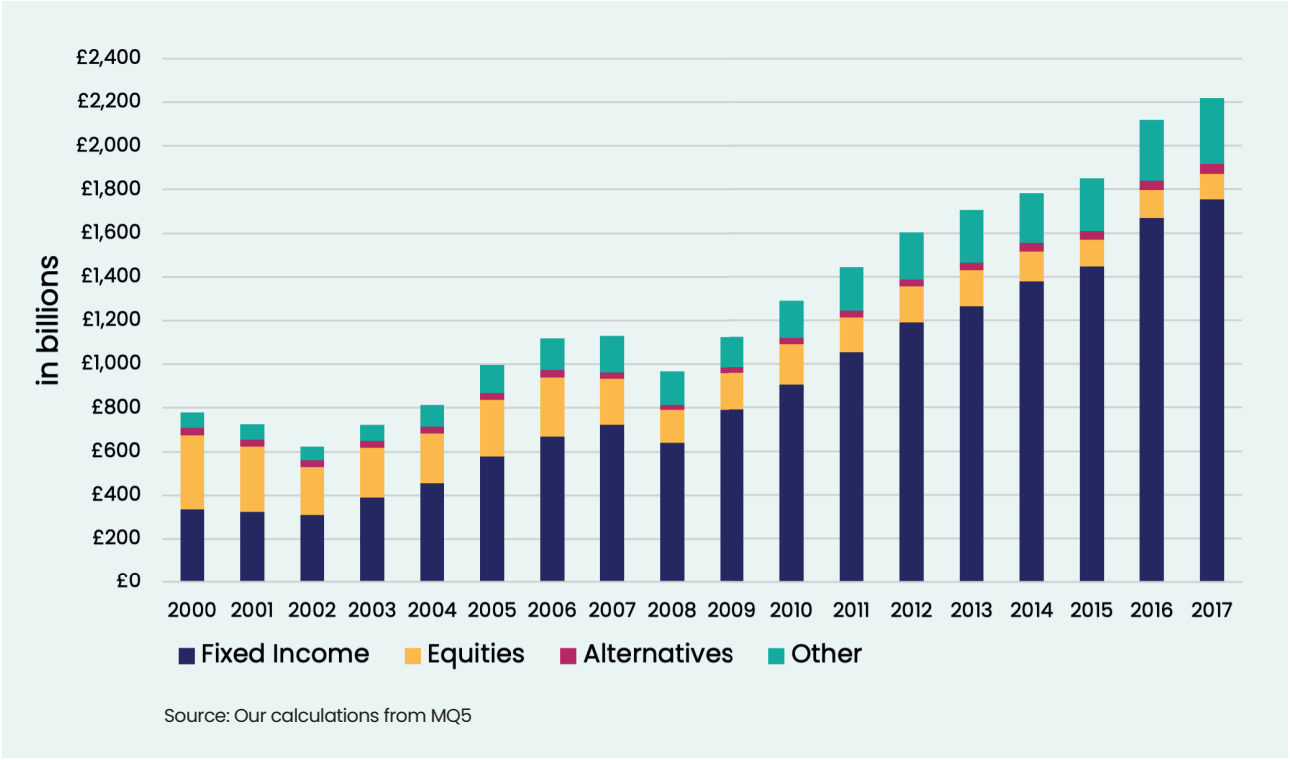
Figure 4b overleaf, illustrates the evolution of direct investment (this excludes pooled fund holdings and insurance policies i.e., buy-ins) by private sector DB pensions for the period of Q4 2019 to Q1 2024. We categorise the private direct investment into fixed income, equities, alternatives, and other assets.[27]

The figure shows that fixed income (long-term debt securities) is the largest constituent of direct investment. As of the end of 2019, the aggregate direct investment in DB holdings amounted to approximately £830 billion. This figure peaked at around £930 billion at the end of 2021. However, by the beginning of 2024 direct investments by private sector DB schemes were below the asset values at the start of the sample. This reflects two key aspects. First, the price of fixed income and gilts, both index-linked and conventional have experienced significant changes in price with interest rates increasing significantly over 2022 and well into 2024. Second, this also captures some of the significant swings in asset values because of LDI.

Figure 4c demonstrates the distinct growth trajectories of UK Government Securities and Corporate Bonds, held directly and in pooled vehicles, over the past two decades, influenced by macroeconomic factors, monetary policies, and market conditions.

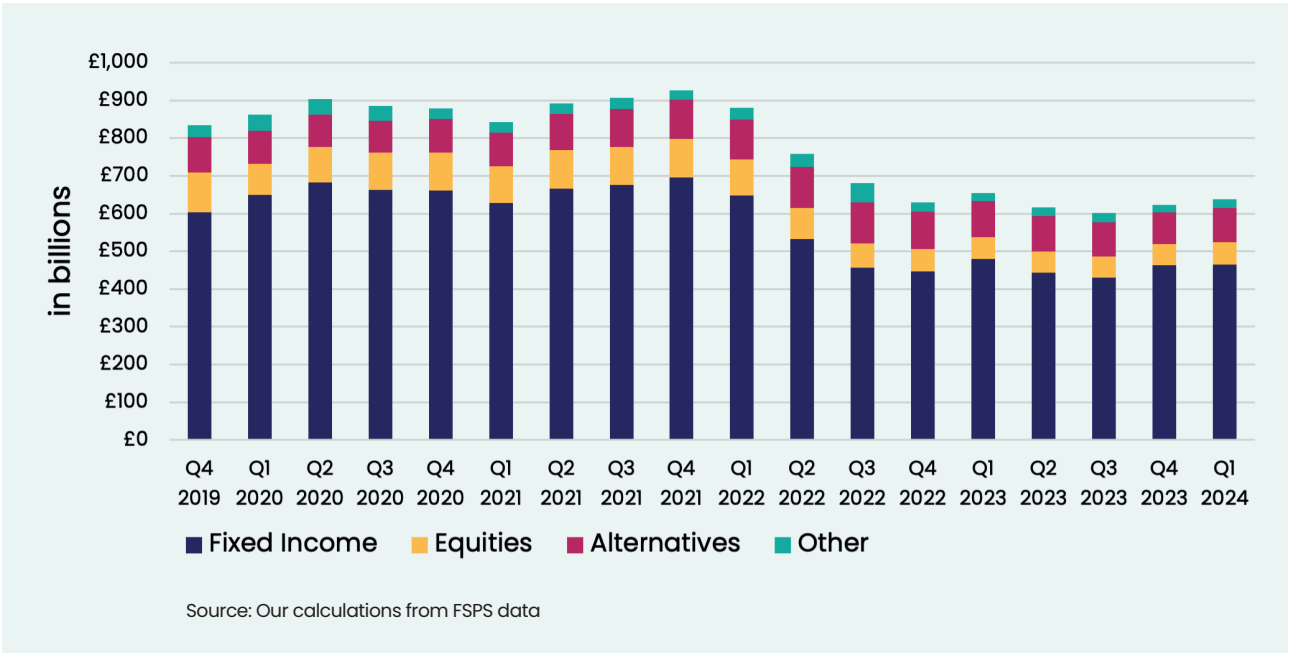
The growth in UK Government Securities is notably aligned with periods of economic uncertainty, such as the 2008 financial crisis and the COVID-19 pandemic. These crises typically drive investors towards safer

Figure 4a: Asset allocation through time



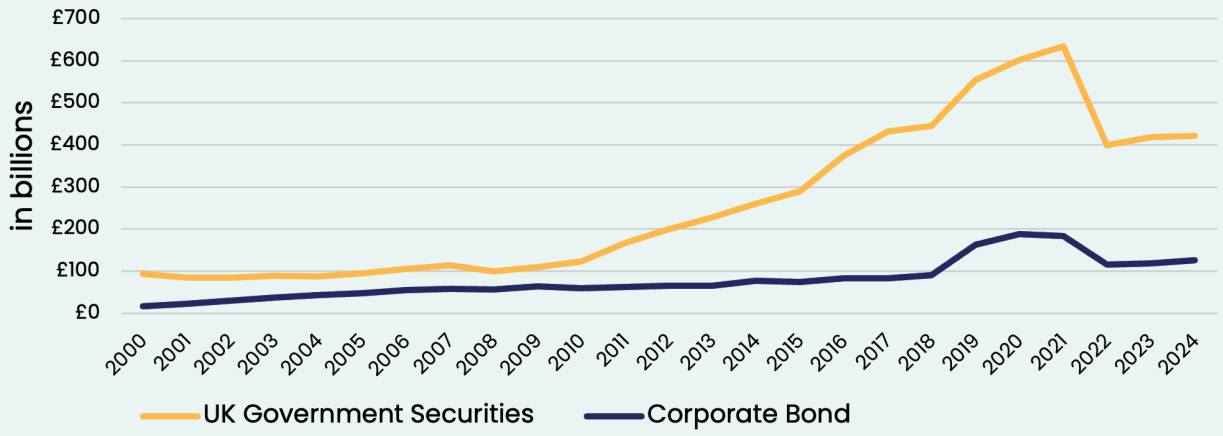
Source: Our calculations from MQ5

Figure 4b: Private direct investment in defined benefit including hybrid



Source: Our calculations from FSPS data

Figure 4c: Private Sector DB asset allocation long term debt securities



Source: Our calculations from FSPS data

assets like government bonds. The Bank of England (BoE)'s quantitative easing (QE) programs, which started in 2009 in response to the Global Financial Crisis, and the subsequent low interest rates that resulted, coupled with the regulatory approach of TPR, increased the need for DB schemes to invest in increasing amounts of government bonds. However, concerns over rising inflation and the BoE's rapid increase in the base rate to tackle inflation, at the same time as starting to undertake quantitative tightening (QT), contributed to the peak and subsequent declines in asset values as LDI unwound, and gilt prices moved to reflect the higher interest environment.

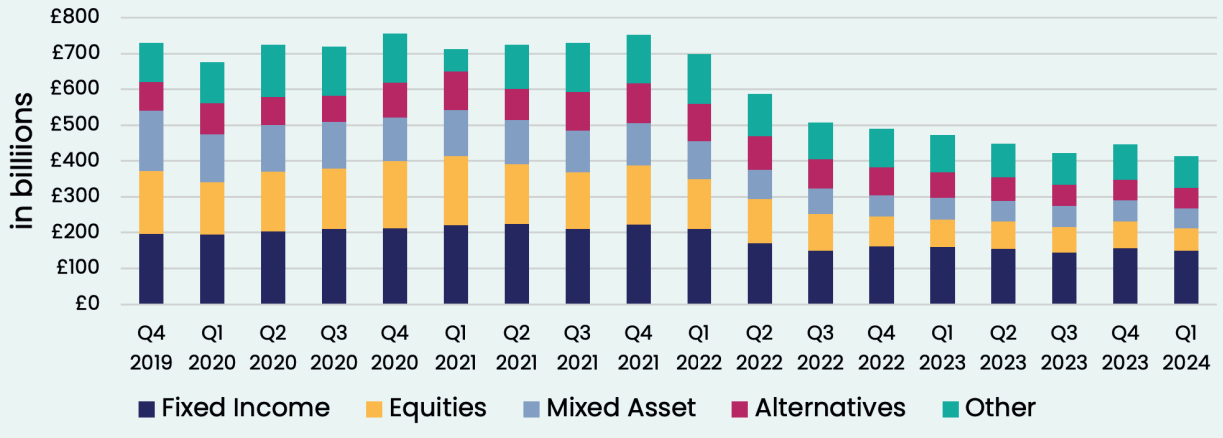
Similarly, the corporate bond market experienced increased activity after 2008 and during the COVID-19 pandemic, as companies leveraged low-interest rates to raise capital. The decline in the value of corporate bond holdings in 2022 can be attributed to rising interest rates but also forced sales of assets by DB schemes to meet collateral calls to maintain their LDI portfolios.

Pooled Investment Vehicles In Private DB

Figure 5 provides a breakdown of the composition of pooled investment vehicles for private Defined Benefit Hybrid (DBH) pension schemes for the period of Q4 2019 to Q1 2024.[28]

The peak value of this investment category occurred around the same time as private direct investment, after which there has been significant decline in the value of pooled holdings from Q4 2021 to Q1 2024. These

Figure 5: Pooled investment vehicles in private sector DBH



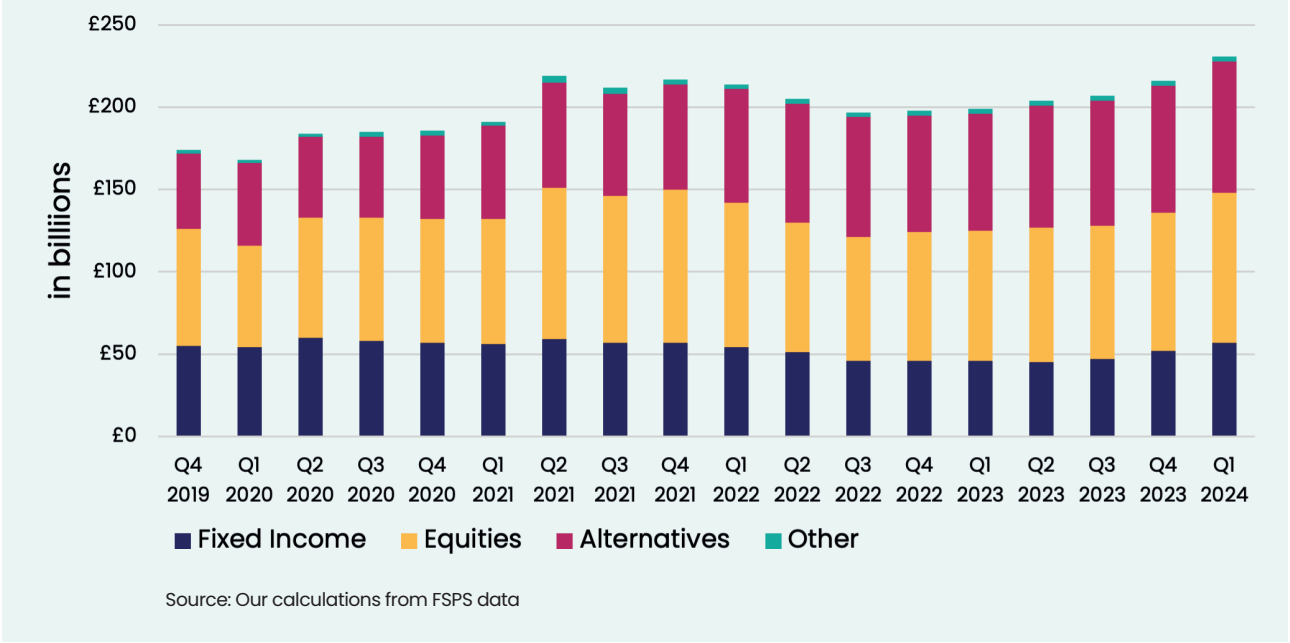
Source: Our calculations from FSPS data

decreases in market value were in part influenced by rising gilt yields, and more broadly it is evident that there have been declines in values across most asset classes in the pooled funds. The large decline in pooled investment vehicles observed in Figure 5 between Q4 2021 and Q1 2024 is due in no small part to the LDI crisis and the move into a higher interest regime.

Central And Local Government Pension Fund Direct Investments (DBH)

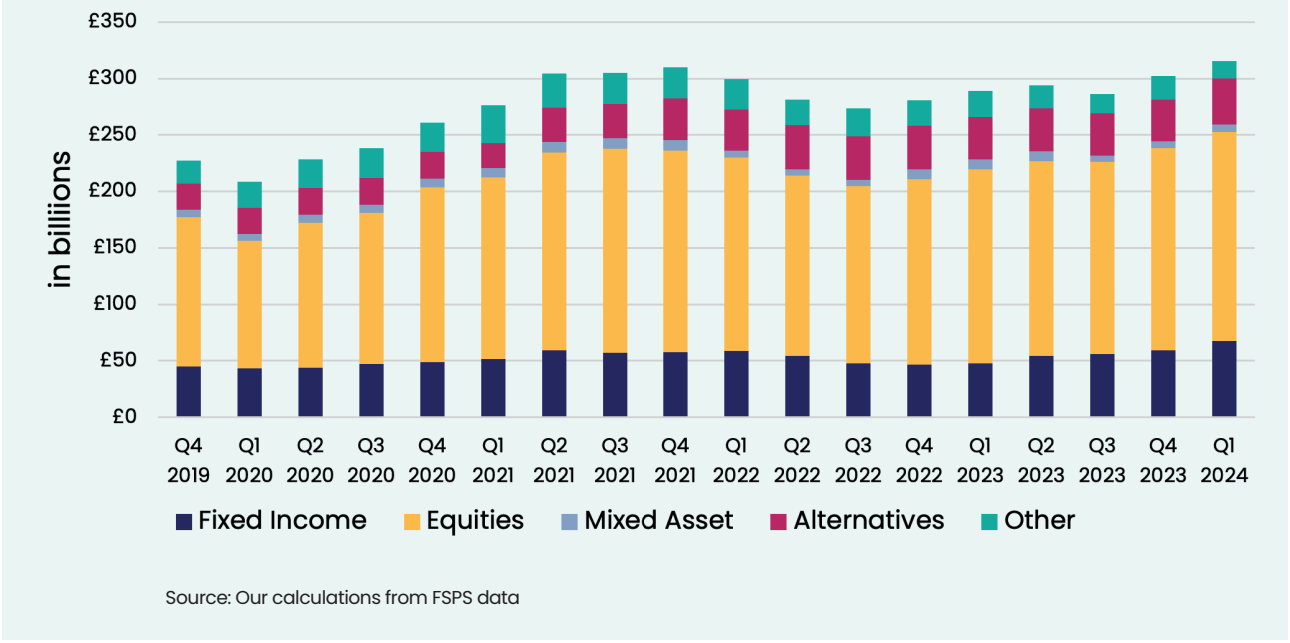
Figure 6 shows the trend in public direct investment by the both the Central and Local Government Pension Schemes. The asset allocation of these schemes, of which the LGPS in England and Wales constitutes the majority of the assets, shows that direct investments exhibit a high degree of stability in asset allocation with the balance between equities and short-term

Figure 6: Asset allocation of Central Government Schemes and LGPS via direct investments



Source: Our calculations from FSPS data

Figure 7: Asset allocation of Central Government Schemes and LGPS via pooled investments vehicles



Source: Our calculations from FSPS data

debt securities over the period being notable. The second-largest asset class after equities is unquoted private equity and alternatives. Between 2019 and 2024 there has been a significant increase in the asset allocation towards private market investments. As these schemes are mostly open to new members and future accrual, then these allocations to risk assets via private equity and alternatives are rational. Similarly, there are questions as to the valuations of investments such as commercial and residential property, where we have seen significant re-appraisals in value in other sectors and assets marked down accordingly.

Figure 7 shows the composition of pooled investment vehicles from Q4 2019 to Q1 2024. The overall value of pooled investment has grown steadily over the period and when combined with direct investments in Figure 6 above would give the total Asset Under Management (AUM) of around £550 billion. As with the direct investments of these schemes, equities consistently comprise the largest share of the investments at around £160 billion which is consistent with open schemes focusing on growth-oriented assets. Fixed interest investments also form a significant portion of the assets, indicating a balanced approach to risk through allocation in more stable, income-generating assets.

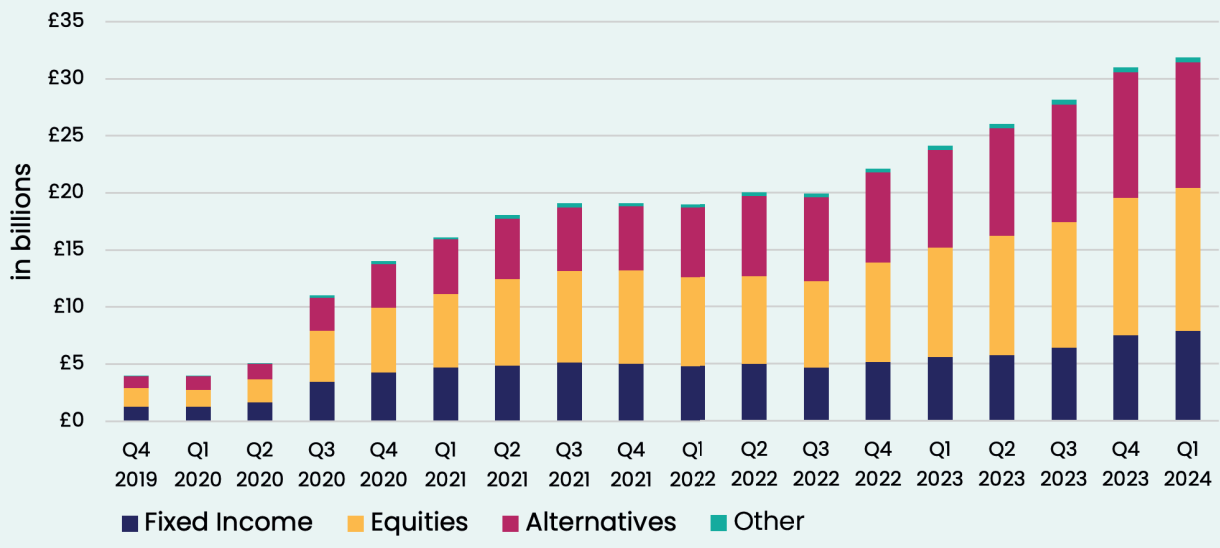
Defined Contribution (DC)

The current landscape of the UK occupational DC pensions market, as outlined by projections and trends, indicates a significant growth trajectory towards 2030. The defined contribution pension market's future is influenced by numerous factors including historical growth rates, consolidation trends within the market, and policy changes that could potentially accelerate the growth or alter the market composition.

As with DB in both the private and public sector, DC pension scheme invests through direct investment or pooled investment vehicles as well as through Master Trusts funds which are discussed further below.

Figure 8 shows the composition and evolution of private direct investment assets in private sector DC pensions that are not provided via DC Master Trust or via a life company. The value of direct investments in DC is relatively modest compared to DC investment via pooled vehicles (Figure 9 overleaf). However, between Q4 2019 and Q1 2024 what is very clear is the significant growth in assets in general with direct investments increasing more than 7-fold over the period. This in part reflects (i) the increasing amounts of savers' money flowing into DC funds but also (ii) the asset mix of DC which is more heavily weighted to risk assets given the nature of these investments. The amount of capital held in unquoted private equity and alternatives (see Figure A4 in the appendix) is also of interest given ongoing debates about increasing DC exposures to illiquid investments and the removal of the charge cap.[29] The charge cap has often been sighted as a barrier to such asset allocation, but it is clear from these figures that DC schemes are both investing in illiquid investments and doing so at an increasing rate.

Figure 8: Private direct investment in DC (direct and pooled)



Source: Our calculations from FSPS data

Figure 9 illustrates the composition of pooled investment vehicles in private sector DC pensions. Comparing Figures 8 and 9, most DC assets are invested through pooled investment vehicles as opposed to direct investments (direct investments account for circa 1/8th of DC investments). As with direct investments by DC funds, and in stark contrast to private sector DB, there is a higher allocation to risk assets and in particular equities and mixed assets.[30] This allocation in DC is again consistent with the expected underlying investment strategy in DC pensions.

DC Master Trusts

In 2024, the UK Defined Contribution (DC) master trust market continued to show significant growth, this is consistent with automatic enrolment, which has increased DC pension savings from 270,000 savers at the beginning of 2012 to over 29.1 million savers. This increased membership has resulted in significant amounts of contributions flowing with an accompanying rise in assets under management, which has increased six times in 2023 since the start of 2012.

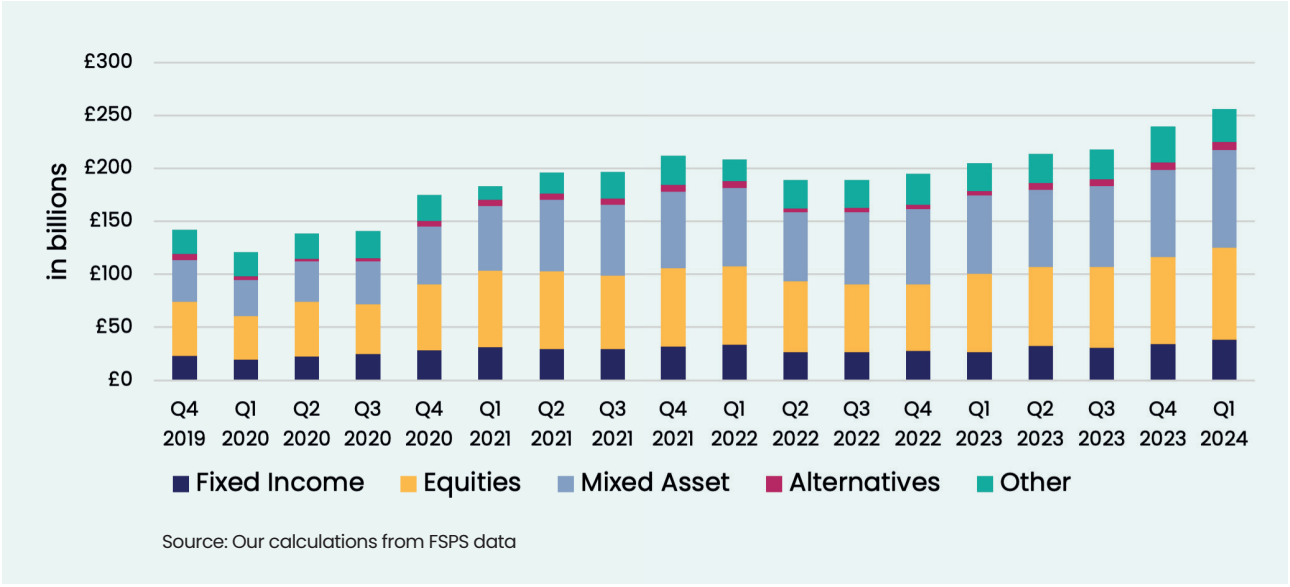
There has been significant consolidation in the DC trust-based pension schemes over this period from nearly 3,660 schemes in 2012 to about 1,080 in 2024 with many schemes now falling under a master trust arrangement. This is part of a broader shift towards fewer, larger schemes that should benefit from economies of scale and potentially provide better value for money. Projections suggest that this trend will continue, with estimates showing the possibility of trust-based schemes falling to just over 500 by 2030. As Figure 10 shows, the amount of savers' money now held in the largest DC Master Trusts is significant with approximately £193 billion of assets under management in June 2024 whereas mid-2023, it was over £140 billion.

Pension Protection Fund (PPF)

Figure 11 depicts the asset allocation of the Pension Protection Fund (PPF) from 2019 to 2024, categorised into four asset classes: liability hedging, return-seeking assets, hybrid assets, and cash. The allocation to liability hedging assets remained relatively stable from 2019 to 2024, reflecting the PPF's ongoing commitment to managing long-term liabilities effectively. The proportion of return-seeking assets was consistently high across the observed period. This strategy aligns with the PPF's goal to achieve growth and improve funding levels through higher returns. Hybrid assets maintained a stable, yet lower proportion compared to liability hedging and return-seeking assets. This consistent allocation underscores the balanced approach to risk and return. The allocation to cash remained the smallest proportion throughout the period, reflecting its role in providing liquidity without contributing significantly to growth.[31]

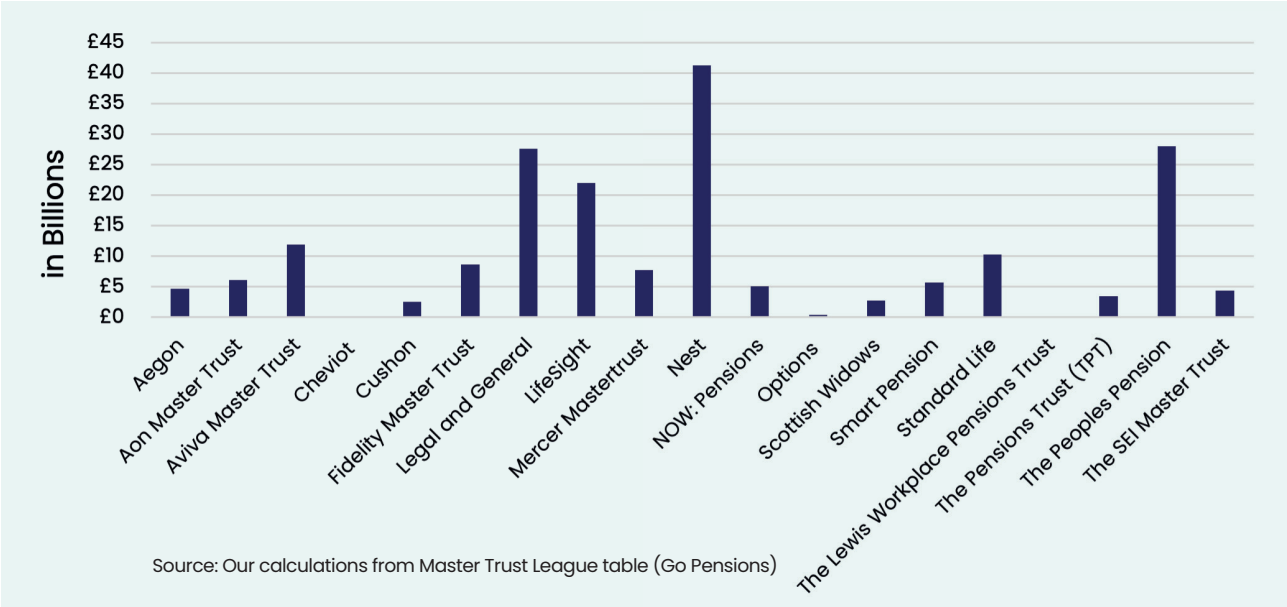
Figure 12 shows the annual change in assets under management by the pension protection fund from 2019 till 2024. During the initial years, the PPF experienced a significant rise in assets under management. Specifically, the AUM increased by approximately £4 billion, marking the highest growth within the observed period. This growth can be attributed to several factors, including favourable investment returns, and increased contributions into

Figure 9: Pooled investment vehicles in private DC



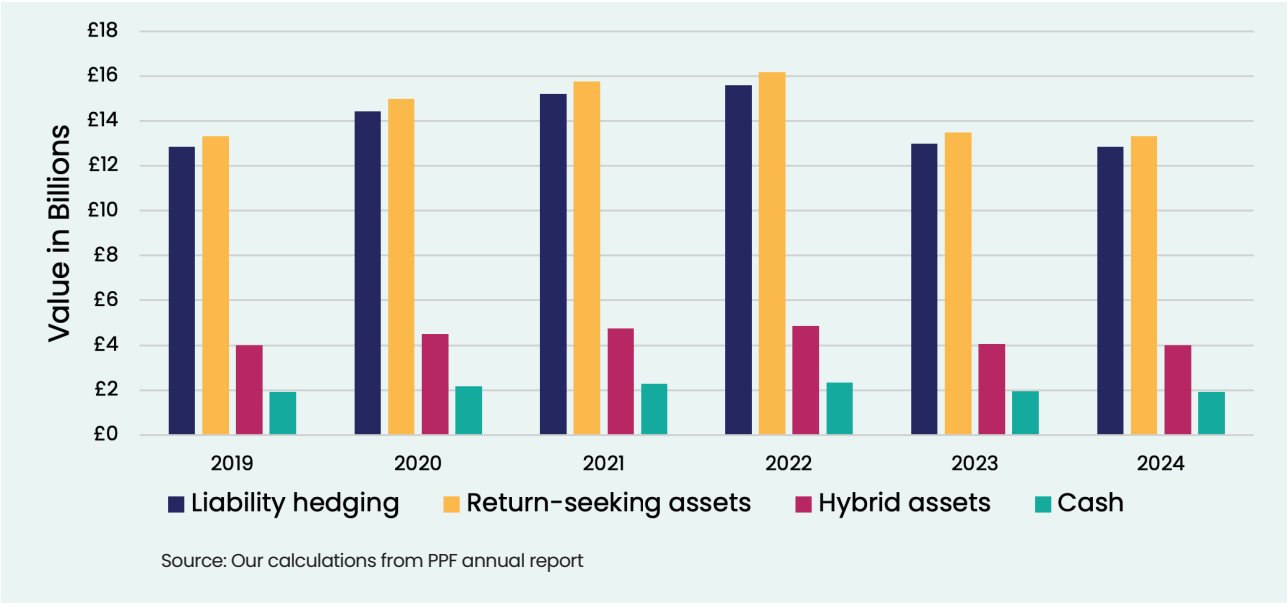
Source: Our calculations from FSPS data

Figure 10: Value of assets under management in the largest DC Master



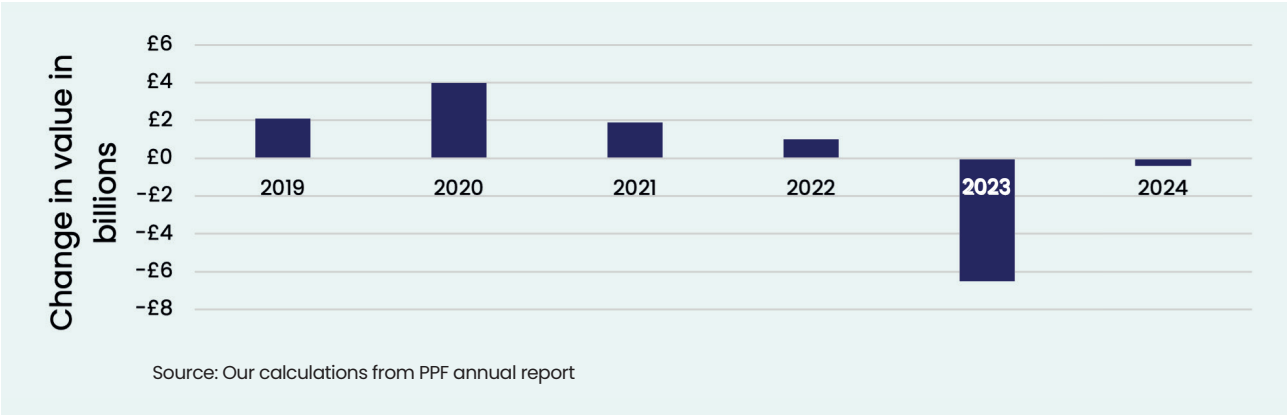
Source: Our calculations from Master Trust League table (Go Pensions)

Figure 11: Asset allocation of Pension Protection Fund (PPF) Trusts June



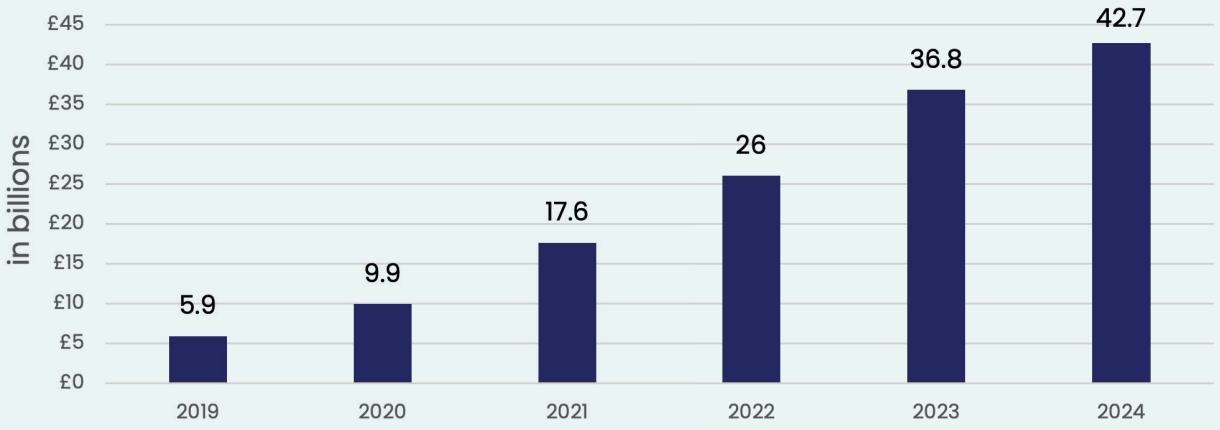
Source: Our calculations from PPF annual report

Figure 12: Changes in asset value of PPF



Source: Our calculations from PPF annual report

Figure 13: Asset under management by NEST



Source: Our calculations from NEST quarterly report

the PPF via the PPF levy. In 2023 and 2024, however, there has been a downturn, with assets dropping by approximately £6 billion and £0.4 billion respectively. This significant reduction in assets is driven by a move into a higher interest rate environment, which impacted bond holdings, as well as declines in the LDI portfolio of PPF, which will also have resulted in the selling of assets to meet collateral calls.

National Employment Savings Trust (NEST)

Figure 13 illustrates the growth trajectory of AUM by the National Employment Savings Trust (NEST) from 2019 to 2024. The data reveal a consistent and substantial increase in AUM, underscoring NEST's significant expansion over this period. This growth can be attributed to several factors like auto-enrolment impact, investment performance, policy and market conditions, and increased member contribution. The upward trend in NEST investment is consistent with the findings from NEST annual reports, DWP (2024), Financial times (2024) and IPE (2024).

Money In The Current UK Financial System

Table 3 provides a snapshot of the value of assets held within different parts of the UK pension system as of September 2024. These values are critical for understanding the distribution and magnitude of investment capital across various pension schemes and insurance sectors.

Overall, the private DBH pensions hold the largest pool of pension assets among private sector schemes. The substantial asset value indicates the significance of DBH schemes in the UK's pension landscape, though it also reflects the challenges these schemes face in terms of funding status and regulatory compliance.

DC pensions, particularly through Master Trusts, are growing rapidly, driven by regulatory changes and increased member participation. In contrast, DBH pensions face challenges due to funding pressures and regulatory requirements, although they still hold significant assets. LGPS assets demonstrate stability and growth, reflecting their open membership status and ongoing contributions from government employees.

The life insurance sector holds the largest pool of investment capital within the UK financial system. This substantial value highlights the critical role of life insurance companies in providing long-term financial security and investment products. The overlaps with other sectors, such as pensions, need careful consideration to avoid double-counting and ensure accurate asset valuation. As well as this, we have yet to included ISA's Investment Trusts, General Investment Accounts, VCT and so on, but these will be examined in subsequent reports.

Conclusions

The UK financial system faces significant challenges that have been compounded by fragmented regulations and often misguided policies that have focused on 'safteyism' and/or systemic profitability to the detriment of the system's efficiency as a tool for allowing money to 'flow' through the system from 'where it is to where it is needed' for the benefit of pensioners and the UK economy alike. Despite being profitable, the financial system has not necessarily been functional from a societal perspective, resulting

Table 3: Money in the current UK investment system

	Value (in billions)	Sources/Notes
Private DBH	£1,181	Our calculations, FSPS, ONS, 19 Sep 2024
Private DC	£288	Our calculations, FSPS, ONS, 19 Sep 2024
Local Government Pension Scheme for England and Wales	£391.5	LGPS, 2023/2024 (Gov.uk)
Central Government Schemes (including LGPS in Scotland and Northern Ireland)	£155.4	Our calculations, LGPS, ONS, Sep 2024
DC Master Trusts (Including NEST)	£193	After rounding, our calculations, Go Pensions 8 Oct 2024
Pension Protection Fund (PPF)	£32.1	PPF annual report 2023/2024
Life Insurance	£2,581	PRI, BoE, Jun 2024
Cash ISA	£294	Annual Savings Statistics, 19 Sep 2024 (Gov.uk)
Stock and Shares ISA	£431	Annual Savings Statistics, 19 Sep 2024 (Gov.uk)
Total	**£ 5,547.1**	**Our calculations**

in low productivity growth, and inadequate investment in the real economy.

Our analysis underscores the significant roles played by the pensions and life insurance sectors. However, due to successive governments emphasising "de-risking", vast pools of capital remain stuck in low-yielding and unproductive assets.

Given there are a range of potential sources for how much money sits in occupational pensions (the Office for National Statistics, Pension Protection Fund, and The Pensions Regulator), we have shown some of the major sources of differences between these estimates of DB assets, as too often, the figures quoted in policy documents simply accept a particular source as being "correct" and as such can overstate the value of assets held. We rely on the Financial Survey of Pension Schemes (FSPS) as this offers the most accurate and current asset values. Based on this, there has been a significant decline in the total market value of private sector defined benefit pensions from £1,834 billion in Q4 2021 to £1,181 billion in Q1 2024. This decline is primarily due to the LDI crisis in DB pensions as well as having large holdings of fixed income and conventional and index linked gilts.

In looking at the underlying drivers for de-risking and the market wide shift into gilts and fixed income in DB, as well as large exposures to LDI, the regulatory approach of "safetyism", resulted in a significant buildup of systemic risk, and the growth in the value of these assets since 2010 and the QE interest rate regime largely all unwound within an 18-month period. As such, this investment and asset allocation approach focused upon trying to remove risk from individual schemes, when in fact, risks were being built up across the financial system.

Unlike private sector DB, the Central Government Schemes, including the LGPS have shown much more stability in their asset base, benefiting from open membership and future accruals, and a different regulator that meant de-risking was not a key regulatory agenda. As such, when interest rates rose, the LGPS schemes for example had much less exposure to fixed income and little to no LDI.

For DC pensions, while smaller in total value compared to DB pensions, have shown consistent growth, this has been primarily driven by auto-enrolment.

Notes

Executive Summary

1. We would like to acknowledge funding and support from Baillie Gifford and ongoing support from the Chatham House Sustainability Accelerator, without which this work would not be possible. All views expressed are our own.
2. Cutting the Costs - Resolution Foundation Economy 2030 Inquiry, Felicia Odamtten & James Smith
3. Pensions at a Glance (2023), OECD and G20 Indicators
4. IPPR analysis of OECD (2023)
5. Subsequent research will attempt to establish how much of the existing stock of assets is fungible and can be moved and what levers may be needed to unlock this capital.

Introduction

6. CMIT
7. Tony Blair Institute. Resolution.
8. Resolution Foundation.
9. Throughout this report we refer to private sector defined benefit pensions as private sector DB/Private DBH, and public sector defined benefit pensions as Local Government Pensions Schemes/ LGPS/Public DBH. We do not undertake any analysis of unfunded pensions e.g., the NHS, as there are no assets back such schemes. We also report on the assets held by the Pension Protection Fund (PPF) as a separate pool of investments.
10. Matthew Rhodes, *The Story of UK Pensions: an engaging guide to the pensions system* (2022).
11. On the 'financialization' of policymaking see J. Kay, *Other People's Money: masters of the universe or servants of the people* (2017)
12. Paul Collier, 'Can Bureaucracies Ever Protect You?', in *Prospect* (Dec 2021). https://www.prospectmagazine.co.uk/society/38119/ can-bureaucracies-ever-protect-you
13. Mishkin, F. S., & Eakins, S. G. (2018). *Financial Markets and Institutions* (9th ed.); Bodie, Z., Kane, A., & Marcus, A. J. (2014). *Investments* (10th ed.); Fabozzi, F. J., & Modigliani, F. (2009). *Capital Markets: Institutions and Instruments* (4th ed.); Merton, R. C., & Bodie, Z. (2005). *Design of Financial Systems: Toward a Synthesis of Function and Structure*. Journal of Investment Management, 3(1), 1-23; Cecchetti, S. G., & Schoenholtz, K. L. (2021). *Money, Banking, and Financial Markets* (6th ed.); Madura, J. (2020). *Financial Markets and Institutions* (13th ed.).
14. *Thinking in Systems: A primer*, Donella Meadows, Chelsea Green Publishing Co., 2017.
15. *Ibid*.
16. Dana Meadows, '*Leverage Points: Places to Intervene in a System*'
17. It is worth noting that by "today" we mean using the most recent data that is available.
18. https://www.thepensionsregulator.gov.uk/en/document-library/ research-and-analysis/occupational-defined-benefit-scheme-funding-analysis-2024
19. The ONS data itself is subject to revisions and adjustments, however, since the LDI crisis, and the divergence with TPR and PPF data, it has been consistent in the broad figures that it provides, and is crucially based off surveys of schemes, as well as capturing specific aspects missed in other data sources e.g., derivatives. Through time, given this consistency, it has increased our confidence in the ONS numbers over other sources.
20. In many instances, this will also influence the ownership structure of the fund, whereby in pooled vehicles investors own units in the fund. Whereas for direct investments these will often be owned/held via segregated accounts so that direct holdings and ownership are identifiable.
21. In our calculation of market value of DBH, we include private direct investment and pooled investment vehicle, insurance policy and net derivatives of DBH.
22. The Pensions Regulator (TPR), their report of the Work and Pensions Select Committee on the impacts of the LDI crisis estimated the declines in asset values over 2022 to be £425 billion based on their modelled values. See, UK pension funds lost £425 billion in year of bond market crisis, Financial Times, 8th February 2024.
23. It is also worth noting that there is now a significant shift within the pensions industry about schemes running on, rather than being transferred to an insurer.
24. https://www.ons.gov.uk/economy/investmentspensionsandtrusts/ methodologies/officefornationalstatisticsonsthepensions
25. https://www.ons.gov.uk/economy/ investmentspensionsandtrusts/methodologies/ officefornationalstatisticsonsthepensionsregulatortprand
26. It is also worth noting that private DBH assets are gross values and so repo borrowing is inflating these values.
27. Our classification of private direct investment differs from that of the FSPS dataset. In the FSPS dataset, categories encompass cash and cash equivalents, long-term debt securities, equities, property, unquoted private equity, and alternatives, other investment balances (receivables) and any other assets. In our analysis, fixed income incorporates cash, and cash equivalents and long-term debt securities, equities encompass equity, alternatives include property and unquoted private equity and alternatives. The "other" category includes other investment balances (receivables) and any other assets.
28. Our classification for pooled investment vehicles mirrors that of direct investment. In the FSPS dataset, categories encompass equity, fixed interest, property, mixed asset, hedge, private equity, money market and other. In our analysis, fixed income includes fixed interest and money market, while equities include only equity, mixed asset includes only mixed asset, and alternatives include property, hedge, and private equity. Other categories include other assets remaining in pooled investment vehicles. For our categorization of assets under DBH, fixed income includes fixed interest, money market, insurance policies and the net derivatives positions of schemes.
29. Other includes other investment balances (receivables) and any other assets in DC private direct investment from FSPS categorization.
30. Mixed asset class investments are a mixture of equity, fixed interest, and other asset classes, but it is not possible to decompose this further due to the categorizations in the FSPS.
31. It is worth noting that buy-in policies are more valuable to the PPF than for individual pension schemes. This is because buy-in policies guarantee full benefits to pensioners, while the PPF typically pays reduced benefits.

Appendix

Figure A1: Map of UK investment system

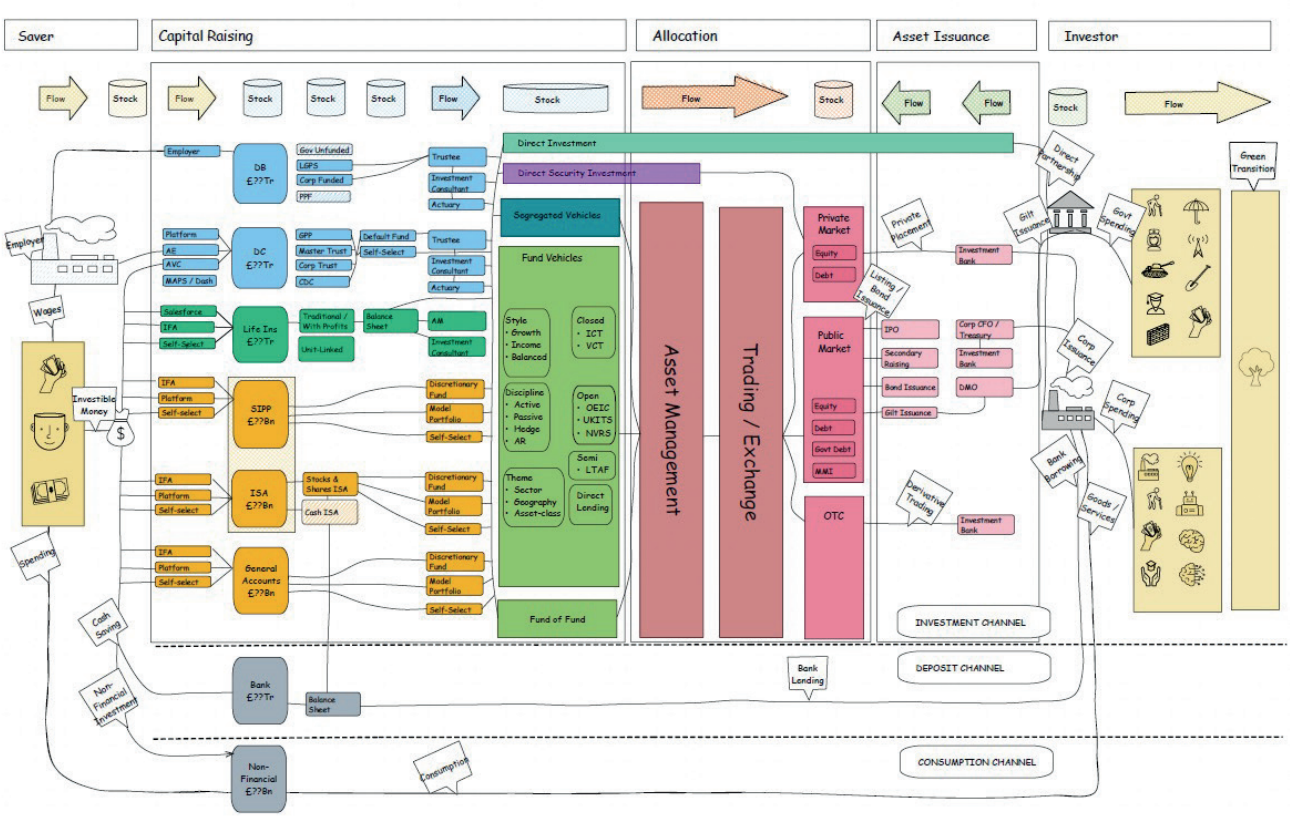


Figure A2: Private Direct Investment DBH (Source: FSPS)

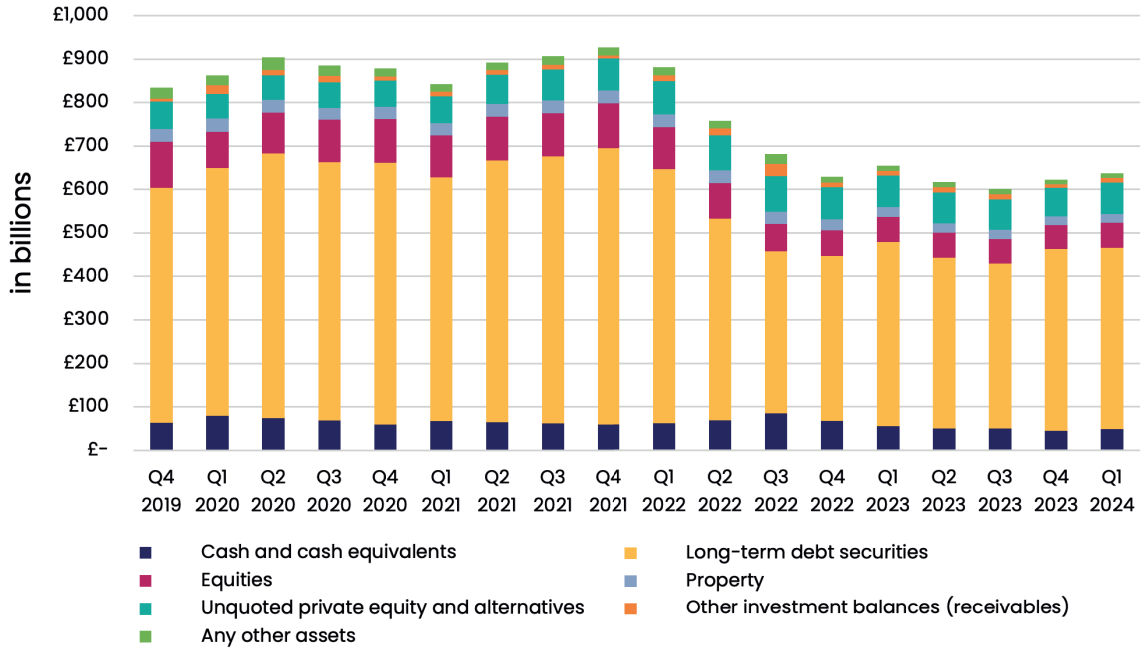


Figure A3: Pooled Investment Vehicle DBH (Source: FSPS)

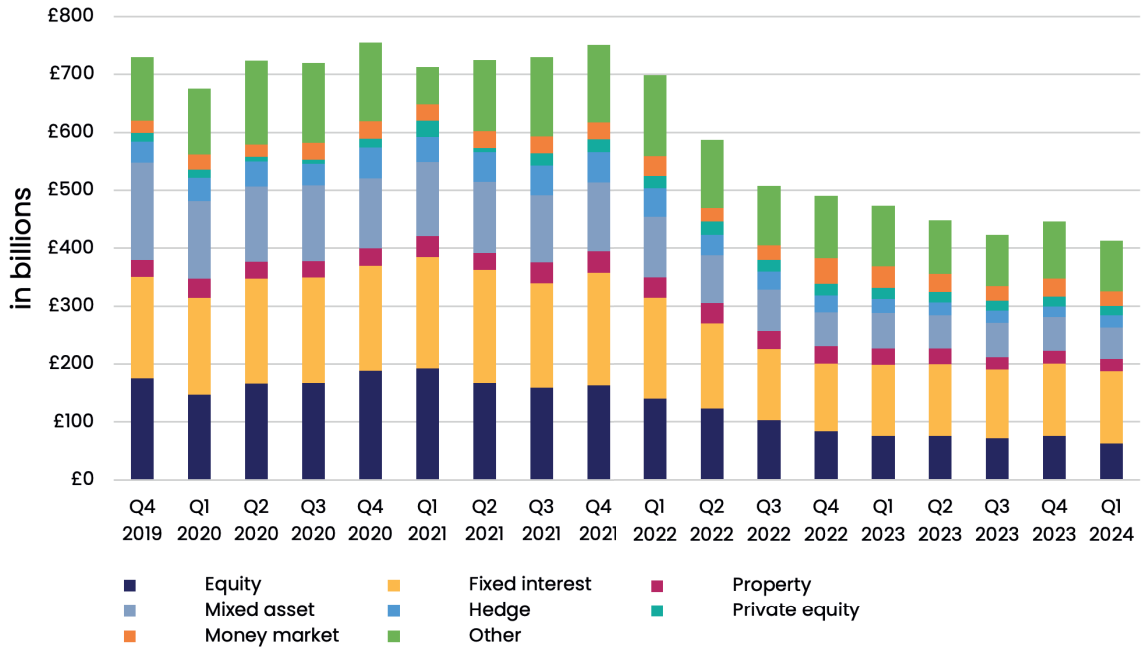


Figure A4: Private direct investment in DC (Source: FSPS)

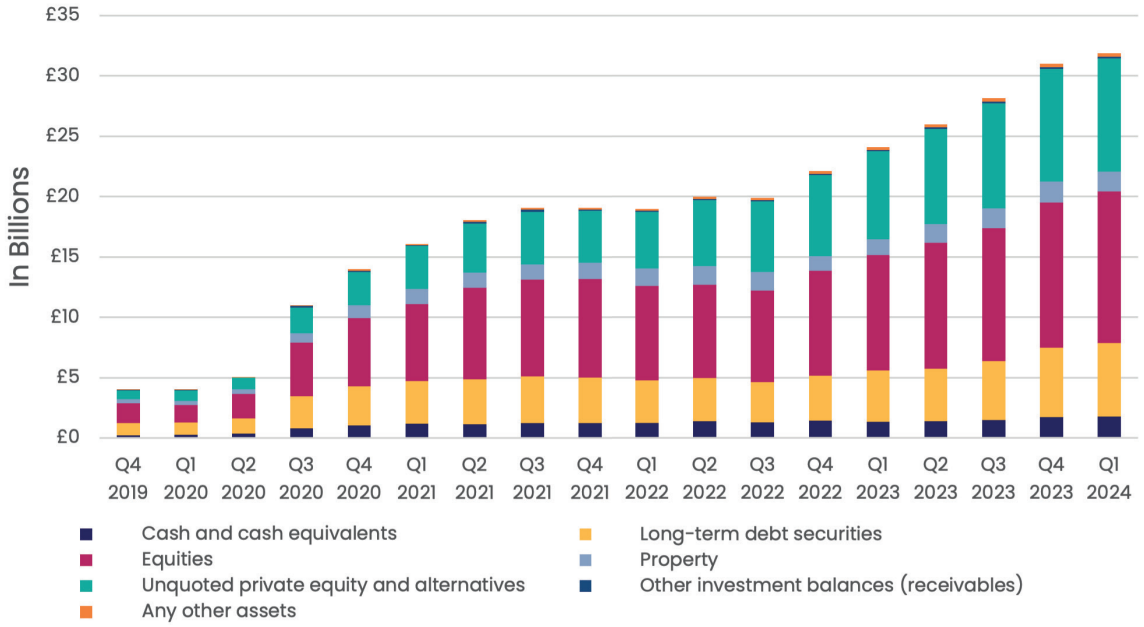


Figure A5: Pooled investment vehicles in private DC (Source: FSPS)

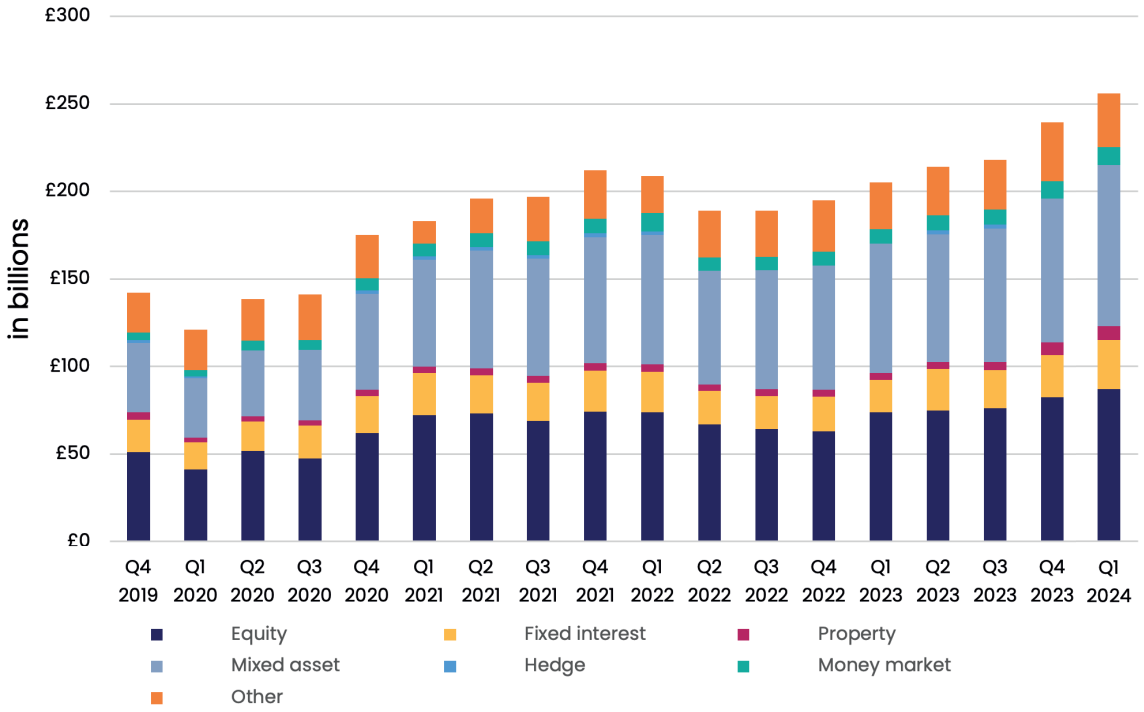


Figure A6: Public Direct Investment DBH

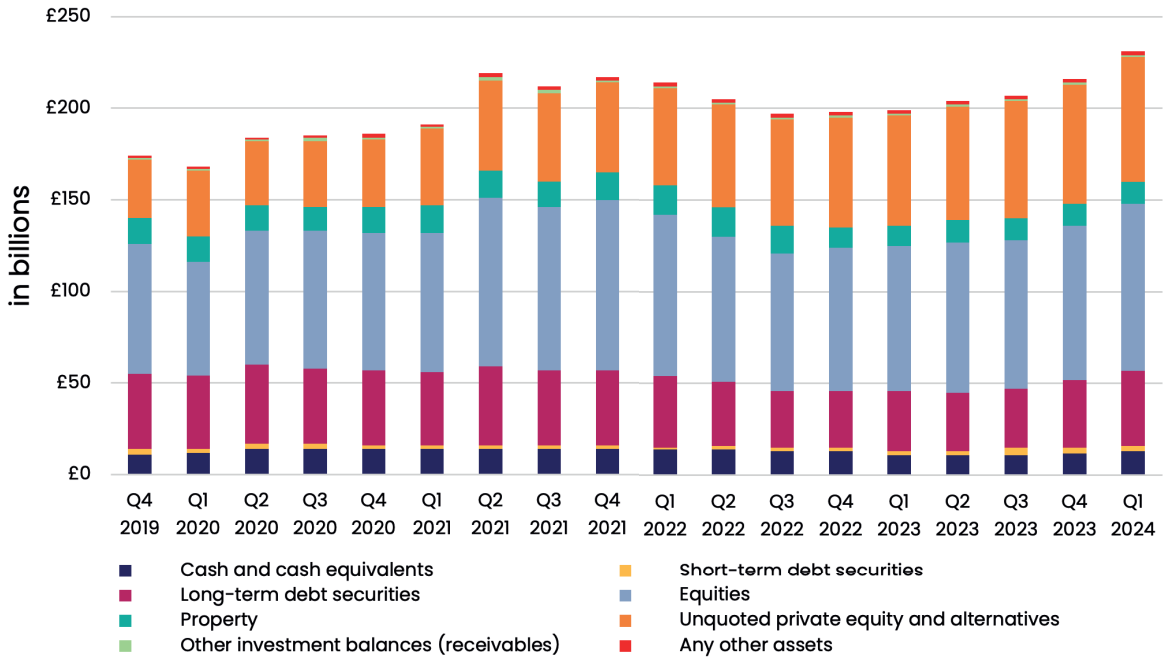
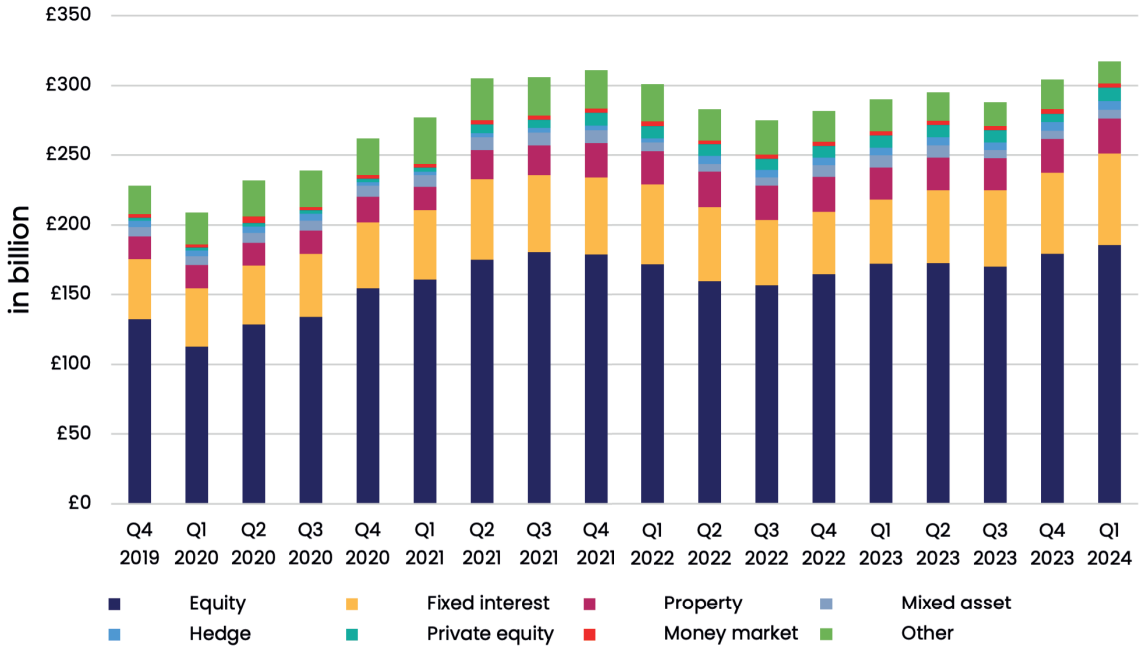


Figure A7: LGPS pooled Investment



New Capital Consensus
A better investment system for all

About New Capital Consensus

New Capital Consensus is a coalition of not-for-profit, apolitical organisations that have come together to explore how the current UK investment system contributes to the country's current problems of low productivity, inequality and low levels of investment. Its objective is to find ways to release investment capital to address societal problems, like those above and in particular, to green the economy.

We believe addressing these problems requires us to:

- Understand how the system operates holistically and as a complex adaptive system;
- Recognise the source of private investment resides predominantly in consumers retirement savings;
- Develop a clear map of the system and an accurate quantification of and view on system stocks and flows;
- Through this, identify the policy levers capable of redirecting system flows toward more productive uses that benefit savers.

We will focus not only on those beneficial policy changes that can be effected within the current system but - recognising that current market structures have developed in an anachronistic way - also those that require changes to current market structures, approaches and beliefs.

The NCC coalition of organisations comprises **Finstic** (Financial Systems Thinking Innovation Centre), **University of Leeds** and **Radix Big Tent** and is incubated at **Chatham House Sustainability Accelerator**.

Chatham House, the Royal Institute of International Affairs, is an independent policy institute based in London. Its mission is to help build a sustainably secure, prosperous and just world. Chatham House does not express opinions of its own. The opinions expressed in this publication are the responsibility of the authors.

For further information about New Capital Consensus and its work please contact Ben Rich on **07469 159 134** or **ben.rich@radixuk.org**

FinSTIC
Financial Systems Thinking Innovation Centre

UNIVERSITY OF LEEDS

RADIX BIG TENT

CHATHAM HOUSE

March 2025