

Built to grow

How asset ownership can improve outcomes
and help the UK economy



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Acknowledgements

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About Invesco

Invesco is a global investment manager that partners with pension schemes to help deliver better long-term outcomes for members. In the UK defined contribution market, Invesco combines deep pensions expertise, regulatory understanding and investment insight with a partnership-led approach, working closely with schemes to address their specific governance, portfolio and retirement challenges. Supporting more than \$18 billion of UK pension assets and drawing on over 30 years of global DC experience, Invesco offers a broad range of capabilities across ETFs, private markets, private credit, multi-asset and quantitative strategies. Its focus is on building enduring partnerships and providing practical support that helps schemes meet evolving member needs.



About People’s Pension

People’s Pension is one of the UK’s largest workplace pension providers and the UK’s largest commercial master trust, helping more than seven million members save for retirement and overseeing more than £45 billion in assets. Operated by People’s Partnership, a not-for-profit organisation with over 80 years of experience, the scheme is designed to make pension saving simple, accessible and good value for employers and members alike. Governed by an independent Trustee Board and with no shareholders, People’s Pension reinvests its profits to enhance member outcomes, services and tools. Through research, advocacy and responsible investment, it works to support long-term financial security and a fairer pensions system for UK savers.



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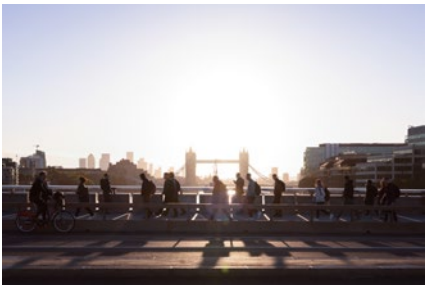
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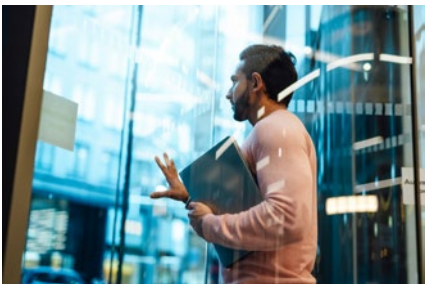
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Foreword

People's Pension

We are witnessing the emergence of a new era in UK pensions. For decades, the UK funded pension system has been one of the largest in the world, yet one of the most fragmented.



Dan Mikulskis
Chief Investment Officer
People's Pension



Investment decisions have often been dispersed across chains of intermediaries, diluting accountability and weakening the connection between pension savers and the assets that ultimately support their retirement.

That is now beginning to change.

The combination of automatic enrolment, rapid consolidation, a renewed focus on value for money, and growing interest in productive private-market investment is creating a new class of institutions in the UK: large-scale, professional asset owners with the capability to shape outcomes rather than simply purchase investment products.

This development matters because the most successful pension systems in the world are not defined merely by the size of their assets. They are defined by the quality of their institutions. Leading Canadian, Australian and other global investors have demonstrated that scale, governance and investment capability can work together to improve outcomes for savers. They have shown that pension funds can be more than passive allocators of capital: they can be active stewards of long-term wealth.

The central argument of this paper is that the UK is moving from a fragmented

investment system towards one centred on capable asset owners.

The evidence suggests that effective asset ownership can create material value. Larger, better-governed asset owners can potentially capture what this paper describes as an *asset ownership premium* through stronger investment decision-making, more efficient implementation, lower costs, greater access to private markets, improved risk management and more effective stewardship. The prize is significant: better retirement outcomes for millions of pension savers and a stronger flow of long-term capital into productive parts of the UK economy.

The paper seeks to move the debate beyond consolidation itself and towards the more important question of what UK pension schemes should become after they achieve scale. It provides a framework for understanding different models of asset ownership, assesses the potential benefits and challenges of each approach, and proposes a practical path forward for UK pension funds seeking to capture the benefits of scale without assuming unnecessary operational complexity.

The age of the UK asset owner is beginning. The next challenge is to build it well.

What is an asset owner?

- Being the ultimate fiduciary of assets (as opposed to acting under a delegated mandate or under the guidelines of a commingled investment vehicle).
- Ability to act solely in the best interest of members.
- A societal license to operate.
- Delivery of mission-level outcomes (e.g. pension payments) as opposed to investment mandate-related outcomes.



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Foreword

Invesco

Dan’s foreword captures the opportunity now facing UK pensions: to move beyond fragmentation and build larger, more capable asset owners that can deliver better outcomes for savers.



Tony Wong
SMD and Co-Head of Investments
Invesco



This paper takes that argument forward by asking what comes next: how scale can be translated into stronger institutions, better decisions and long-term value.

At Invesco, as a global provider, we see this as part of a wider global evolution in asset ownership. Around the world, the strongest institutions are not defined by scale alone, but by the disciplines that make scale effective: clear purpose, strong governance, specialist capability, access to private markets, robust risk management and accountability to saver outcomes.

Partnership is integral to that model. It is not a bolt-on, nor a compromise between insourcing and outsourcing, but a way for asset owners to build capability while retaining control of their purpose, governance and member outcomes. The right partner can bring depth, breadth and practical experience to help translate ambition into delivery.

For Invesco, that means working alongside UK and global asset owners as they define long-term objectives, access private markets, develop retirement solutions and turn strategy into implementation. Our role is to bring global perspective and specialist expertise, adapted to the needs of UK schemes and their members.

The age of the UK asset owner is indeed beginning. Building well – with the governance, capability and partnerships needed to translate scale into long-term value for savers, markets and the wider economy – will be crucial.

The call to action is clear: schemes, policymakers and partners must focus not only on creating larger pools of capital, but on building the asset ownership models capable of turning that scale into better outcomes for savers.

Closing summary

The UK pensions market is entering a new phase in which scale must be matched by institutional strength. The key themes are clear: moving beyond fragmentation, building capable asset owners, strengthening governance and implementation, using partnership to extend capability, and keeping saver outcomes at the centre. The opportunity is not simply to make schemes larger, but to create asset ownership models that can convert scale into long-term value for members, markets and the wider economy.



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Executive summary

Strategic conclusions and stakeholder implications

1 Asset ownership has become a source of potential competitive advantage

Scale, governance, talent and decision-making capability combine to create an asset ownership premium. Across a spectrum of activities, better asset ownership has the potential to add 25–75 bps per annum, with up to 125 bps per annum in the most favourable scenario (compared to a passive approach implemented at low scale). In a world where investors spend enormous effort searching for alpha, this is a striking conclusion: how capital is organised may matter as much as where it is invested.



2 The UK's pension reforms are creating the conditions for a new generation of asset owners

Auto-enrolment, consolidation, Value for Money reforms and the push toward private markets are driving a structural shift. The opportunity is not merely to create bigger pension schemes. It is to create better investment institutions. Scale by itself will produce more of the same, only bigger. Asset ownership is about more than scale.



3 Better asset ownership could materially improve retirement outcomes

The additional returns to enhanced asset ownership could compound substantially over a saving lifetime to deliver higher pensions. This paper estimates that widespread adoption of more effective asset ownership models could increase retirement incomes by 5–20% over time. This is equivalent to an additional £20,000–£60,000 in a typical member's pension pot (in real terms), and potentially up to 35% (£100,000) in the most favourable outcomes.



4 There is a significant economic dividend – but it is a consequence, not the objective

If the UK develops a cohort of large, capable asset owners, the result could be a positive economic impact of £75–110 billion per year over the next 20 years, amounting to a 2–3% increase in GDP each year on average, a similar order of magnitude to the UK construction industry. Growth capital is best understood as a by-product of stronger asset ownership, not a driver of it.



5 Building asset owners is ultimately an institution-building challenge

The most important lesson from international experience is that success does not come from copying a portfolio. Successful asset owners are built through governance, culture, clarity of purpose, talent, disciplined decision-making and organisational design.



6 Retirement is likely to be the next frontier of asset ownership

The growth of DC pensions means increasing numbers of members will remain invested for years after retirement. Asset ownership principles will become increasingly relevant across the whole member journey.



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What does this mean?

Our takeaways for different actors in the system

For pension providers and asset owners

- 1 **Recognise that the asset ownership model is upstream of all other investment decisions**, and needs to be addressed first – answer the question “*what kind of investment organisation do you want to build?*”
- 2 **Resource a dedicated investment function appropriately** and give them real focus and agency over the pool of capital.
- 3 **Consider governance models carefully**. Clarify which decisions get made where and who is responsible for what, as this is one of the key routes through which asset ownership can potentially deliver higher returns.
- 4 **Learn from international best practice**. Differentiated models have developed overseas, all with their own pros, cons and their own specific edge.
- 5 **Select key partners to deliver the ownership model**. This need not involve bringing everything in-house, effective partnering can be powerful.
- 6 **Build capability and systems**. Centring these within the asset owner allows effective oversight and risk management of the large pool of capital, and puts the team in control.

For asset managers

- 1 **Move from product provider to strategic capability partner**. Build deeper partnership models based on shared objectives and accountability.
- 2 **Re-evaluate the relevance of your full product offering**. Develop solutions supporting private markets, retirement income and stewardship objectives. Expand retirement and post-retirement capabilities.
- 3 **Consider new adjacent services to augment traditional asset management**. Provide governance, implementation and risk-management support. Invest in transparency, reporting and analytics. Help asset owners bridge policy ambition and implementation.
- 4 **Align culture and incentives to partnership-based relationships**.

For policymakers

- 1 **Recognise the difference between asset owners and asset managers** when determining future policy and regulation, as well as the differing profiles of the various asset owner types (e.g. DC, DB and LGPS). These organisations often do not fit neatly within existing regulatory frameworks, but they will form a growing and significant UK constituency that should be fully understood and considered in the policy mix.
- 2 **Ensure consolidation translates into institutional capability**. As pension reforms progress, focus should increasingly turn to the expertise within consolidated asset owners. This should include looking at the governance, investment and stewardship capabilities. This would complement the shift towards a value-for-money framework and support the long-term ambition of creating a cohort of sophisticated UK asset owners capable of delivering stronger member outcomes and supporting economic growth.
- 3 **Ensure consumer outcomes are at the forefront of the ongoing pensions reforms**, particularly when considering the products available across the market, the regulatory frameworks that support effective competition and provide greater consistency in consumer protection. This should enable the end-saver to navigate the pensions market seamlessly and benefit from the improved financial outcomes that scaled asset owners may deliver.
- 4 **Government and public finance institutions should work purposefully alongside asset owners**. This needs to be done thoughtfully and deliberately, recognising the different mandates and identifying where the objectives align. Their focus should be on distinct roles around co-investment, risk-sharing and convening, with existing institutions and initiatives assessed against these key functions moving forward.

For retirement providers

- 1 **Asset ownership should extend across the full member journey**. The next phase of pensions innovation will focus on retirement outcomes. Retirement pathways should integrate governance, investment strategy and engagement.
- 2 Integration of accumulation and decumulation may deliver better outcomes.
- 3 Building successful retirement solutions requires specialist expertise and partnerships.

For consultants and other service providers

- 1 **Provide tools, not a do-it-for-them service**. Pivot to providing specialist expertise that complements a skilled internal team, rather than aiming for the do-everything approach common under fully outsourced models. Focus service offerings around giving internal teams the tools and resources to do it for themselves, rather than doing the work on their behalf.
- 2 **Facilitate peer comparison**. Services like governance benchmarking and operating-model assessment will interest those looking to develop asset ownership models.
- 3 **Share international best practice**. Create meaningful peer-group comparisons and help asset owners understand where they sit relative to the world’s leading institutions.



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Introduction

The UK Government has highlighted the success of Canada’s largest pension funds – the ‘Maple-8’, and Australia’s superannuation funds as models for UK pension schemes to follow. In both cases, economies of scale are at work: consolidation has led to assets being managed by fewer but much larger funds. Additionally, funds have emphasised the value of governance, including building internal resources to manage assets more effectively. See **Explainer: What is the Canadian Model?**

Explainer: What is the Canadian Model?

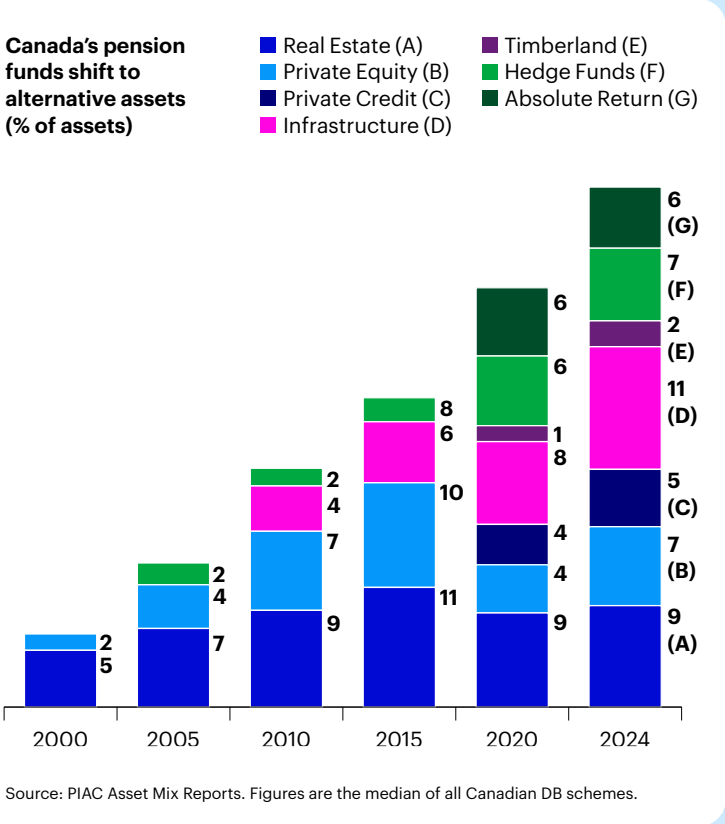
The **Canadian model** refers to the way Canada’s pension funds invest and govern their assets. It is widely regarded as one of the most successful investment models in the world and combines professional investment management with strong governance and a long-term investment horizon.

The Canadian pension system was created through reforms in the 1990s to address adequacy and underfunding issues. Public pension funds were established or restructured according to the following principles:

1. Alignment of interests without political interference
2. Independent and professional board
3. Long-term investment horizon
4. Exposure to private markets and other alternative assets
5. In-house management
6. Competitive compensation for investment professionals

The largest of these funds earned the moniker ‘Maple 8’ following an article in the *Economist* and include Canada Pension Plan Investment Board, Ontario Teachers’ Pension Plan, and Caisse de dépôt et placement du Québec. The funds enjoy significant economies of scale with the average size of the Maple 8 funds being over £150 billion.

A defining feature of the model is direct investing, especially in private markets. Rather than allocating most capital to external fund managers, Canadian pension funds build large in-house teams that invest directly in infrastructure, private equity, real estate, credit, and public markets. This reduces fees and improves control over assets. The funds are open DB pension schemes and therefore have tolerance for illiquidity which allows a long-term investment perspective.



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Against this backdrop, the paper explores asset ownership as a potential source of added value and as a catalyst to invest for UK economic growth. We develop four models of asset ownership, which we believe are useful reference points. We also propose a partnership version that retains many of the benefits of asset ownership but is lighter in terms of internal resources.



The paper is laid out as follows:

- **Section A. Drivers for change in the UK investment landscape.**
We discuss the investment landscape and drivers for change, with a particular focus on UK DC workplace pension schemes.
- **Section B. Does scale pay? The case for larger asset owners.**
We consider the benefits of scale, with evidence for additional added value for large funds relative to small funds.
- **Section C. Applying scale and governance: The asset ownership premium.**
This section expands on ways in which asset owners can enhance portfolio outcomes.
- **Section D. Investing for UK growth.**
This section covers issues around UK growth and economic investment through private markets.
- **Section E. The asset ownership dividend.**
In this section we consider how greater private market allocations might benefit the UK economy.
- **Section F. Exploring asset ownership: A framework.**
We propose four main asset ownership models and discuss a variation which emphasises ‘partnership’.
- **Section G. Asset ownership challenges and a ‘partnership’ solution.**
This section discusses the challenges of asset ownership and elaborates on the partnership model as an alternative. We also consider factors that influence which ownership model is suitable for different investors.
- **Section H. Conclusion and the way forward.**
We give some summary thoughts as well as a planning guide for the future development of asset ownership.

Note:
In the paper, we use the terms ‘fund’, ‘scheme’, ‘institutional investor’, and ‘asset owner’ interchangeably. These are organisations such as pension funds, sovereign wealth funds and endowments that manage a single or limited number of portfolios for underlying beneficiaries. In the case of pensions, organisations could be defined benefit or defined contribution funds. For defined contribution funds, the considerations relate to the management of flagship (typically default option) multi-asset portfolios.



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Drivers for change in the UK investment landscape



Key takeaways

- There is a push for consolidation and scale.
- Private market investment is encouraged to support growth.
- DC pension funds are a particular focus.



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The UK funded pensions system is one of the largest in the world, with around £2.3 trillion in assets – equivalent to roughly 75% of GDP. This is comparable to pension assets in Canada and Australia, at around £1.8 trillion and £2.3 trillion, respectively^{A1}. The UK Government has placed increasing emphasis on efficiency, value for money, and support for its domestic growth agenda. These priorities are now reflected in the landmark Pension Schemes Act 2026.

Readers seeking additional context and supporting discussion can find an extended version of this section in **Appendix B**.

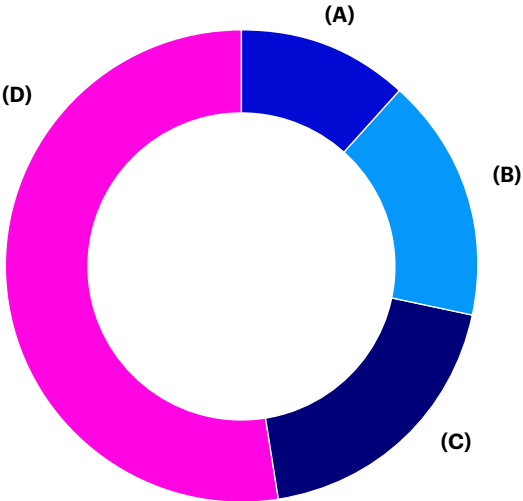
A fragmented UK pensions landscape

Private sector DB schemes still hold the largest share of assets, around £1.2 trillion, but most are closed to new members and have limited active membership. The main sectors open to new members are the defined benefit Local Government Pension Schemes (LGPSs) and private sector DC schemes, split between trust- and contract-based arrangements.

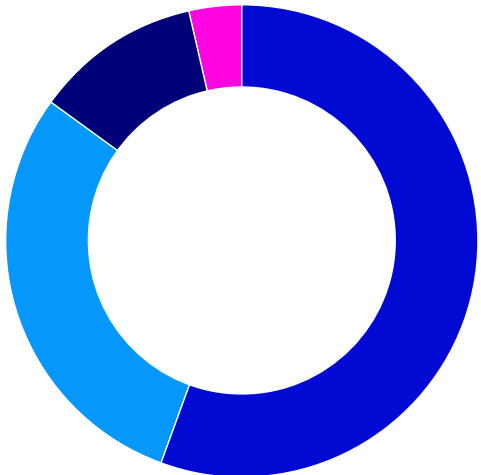
- **DB public schemes – LGPS.** Around 86 LGPS funds hold about £400 billion and will be required to combine assets into larger pools.
- **DC private sector schemes.** Private sector DC assets total around £600 billion: about £250 billion in trust-based schemes, mainly Master Trusts, and £350 billion in contract-based schemes.

Exhibit A1
UK Pension funds – asset and membership breakdown

Assets	DC Private – Trust (A)	250
	DC Private – Contract (B)	349
	DB Public – LGPS (C)	402
	DB Private (D)	1102



Active members	DC Private – Trust (A)	10791
	DC Private – Contract (B)	5749
	DB Public – LGPS (C)	2200
	DB Private (D)	662



Source: The Pensions Regulator, The Pensions Policy Institute, 2025.



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Scaling up through consolidation

Globally, assets are moving into fewer, larger funds. Drivers include economies of scale, as larger funds spread fixed costs, negotiate better terms and access more asset classes; regulatory pressure, as compliance costs push weaker schemes to merge, exit or improve; and political pressure, as governments can more easily engage large institutions on domestic or regional investment priorities.

Although UK pension assets are similar in scale to Canada and Australia, ownership is much more fragmented. For example, the eight largest UK funds account for around 20% of total pension assets, whereas the figure is closer to 70% in Canada.

Several drivers for consolidation, largely government-led, are set out below.

DC schemes

From 2030, Master Trusts and certain contract-based schemes are expected to hold at least £25 billion in their main default fund, with limited flexibility for sub-scale schemes to reach that level by 2035. Schemes must plan how to reach the 2030 target through growth or consolidation.

LGPS

Local authority schemes must now invest through one of six approved pools, down from eight. After consolidation, the smallest pool will be about £25 billion and the largest above £100 billion.

Private sector DB schemes

A pension consolidation “superfund” has existed for several years, but take-up has been slow. The Pension Schemes Act gives greater statutory clarity, though meaningful impact will require significant scheme participation.

Addressing the growth agenda with private market capital

The UK Government wants more long-term private capital directed into the domestic economy. The Mansion House Accord, signed by major DC providers with assets of around £250 billion, sets an ambition to allocate at least 10% to private markets by 2030, with at least half in the UK. This is expected to direct £25 billion or more to UK businesses.

UK local authority schemes already invest in private assets, with around 25% allocated across private equity and credit, real estate and infrastructure. This is comparable to Australian Super funds, but below the Maple 8 and Canadian DB funds more generally.



Other drivers for DC schemes: Value for Money, fund terms and post-retirement investing

Value for Money regime

The VfM framework for contract-based schemes will be extended to Master Trusts. It assesses outcomes across investment performance, costs and charges, and service quality, and requires schemes to explain action where results are poor. It should shift attention from headline cost to long-term net value, helping justify higher-cost assets where they improve outcomes, and increase pressure on weak schemes to wind up or merge, reinforcing consolidation.

Measuring VfM will be difficult and could have unintended effects. The PPI notes that Australia’s comparable “Your Future, Your Super” test encouraged herding as funds sought to avoid failure. Even so, the broad direction of travel has been welcomed.

Fund terms and structures

Changes to terms and structures may further support DC private market investment: 2023 regulations allow performance fees to be excluded from the 0.75% charge cap if conditions are met, and the 2021 Long-Term Asset Fund offers a regulated route for holding illiquid assets.

Post-retirement investing

Since 2015, UK pension savers have not had to buy an annuity and can instead take a lump sum or draw down invested savings. Few have bought annuities since, so assets are building for those nearing or in retirement. Managing drawdown could extend investment horizons by 10 to 20 years, creating challenges but also scope for higher private market allocations.



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References

A1. For the UK, ‘Pension scheme assets – how is asset allocation changing and why?’ Pensions Policy Institute PPI (2025). Excluding individual personal pensions and annuities and unfunded public sector schemes. With these included, total assets are around £3.2 trillion. For Canada: PIAC Asset Mix Report. For Australian Superannuation Schemes APRA Super Statistics.



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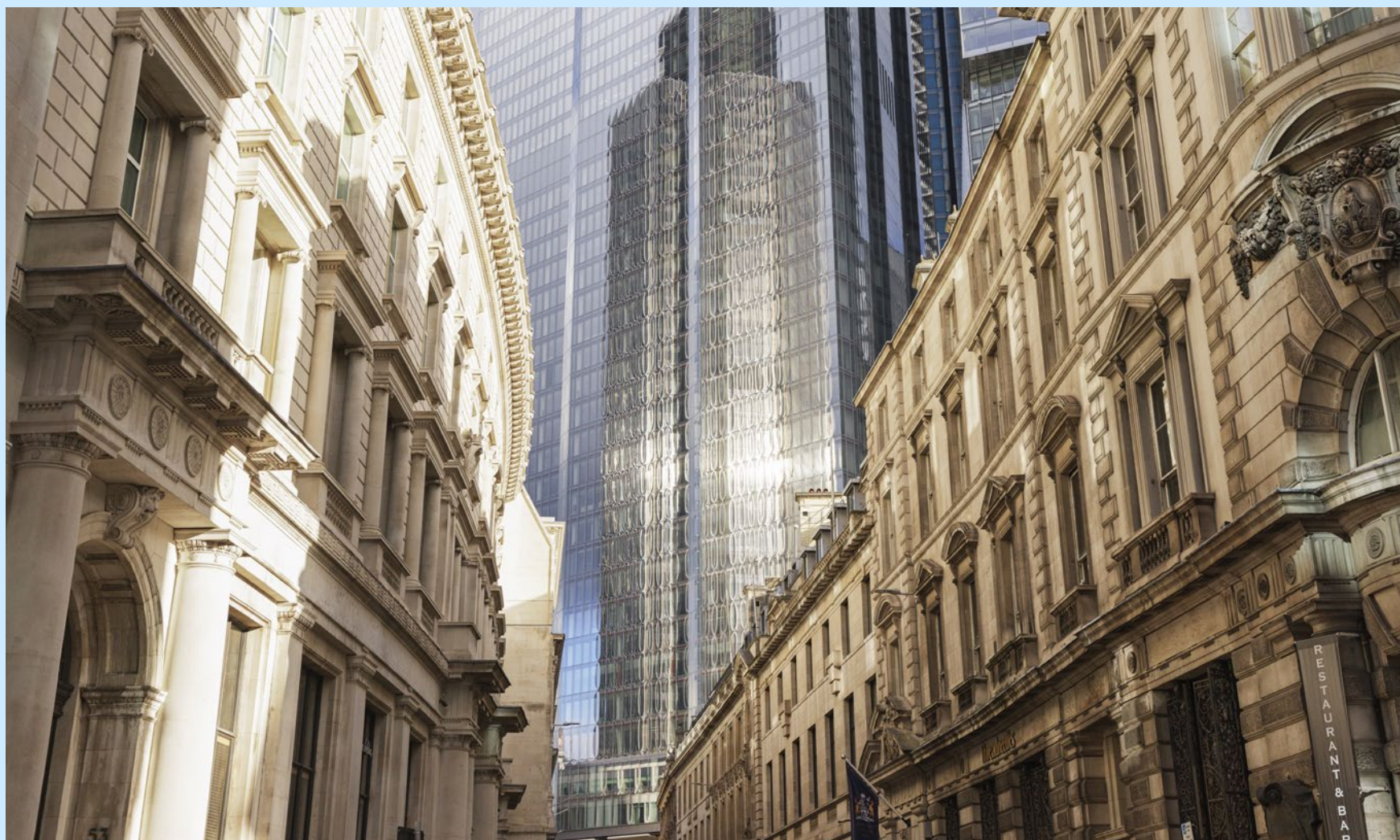
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Does scale pay? The case for larger asset owners



Key takeaways

- There is some evidence that larger asset owners have a scale advantage.
- Larger funds have benefitted more from skill and private market assets.
- Cost reduction is an important factor, particularly from internal management, and in private assets.
- £25 billion is a starting point from which scale benefits could begin to take hold.



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In this section we consider whether large asset owners have added value relative to their smaller peers. In other words, do large asset owners benefit from scale? We also explore some important drivers of added value and consider what size is needed for scale benefits to begin to kick in.



The case for scale

As noted earlier, consolidation has been an important theme for asset owners globally, with fund sizes increasing substantially. There are good reasons to believe that larger funds have an advantage over their smaller peers. They should benefit from:

- Scale in negotiating fees with external managers and specialist providers. Services charged in monetary terms will naturally be a smaller percentage of asset under management, as will other fixed costs;
- Greater skill in selecting and managing external managers, including access to 'top' managers;
- The ability to develop deeper and broader relationships with 'partnership' managers, leveraging external skills and resources;
- The scale needed to build internal resources, which leads to lower costs and greater operational efficiency;
- Greater skill to assess and invest in more sophisticated (and complex) assets, including alternative and private assets;
- The skills and resources to adopt a more flexible decision framework, which creates more dynamic portfolios including opportunistic and not-easy-to-classify investments. We discuss the Total Portfolio Approach later;
- Access to investments that only come in large blocks (for example, a large infrastructure project).



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Evidence supports the case that larger asset owners have a scale advantage

A study by CEM Benchmarking^{B1} analysed returns and costs for large institutional investors over 1992 to 2020, with nearly 9,000 observations of annual data.

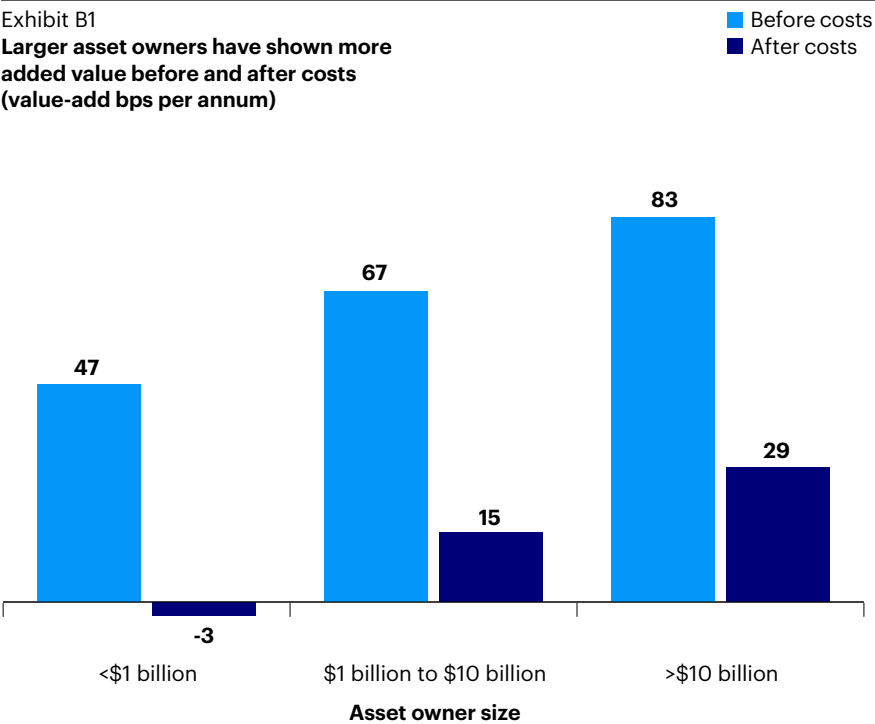
The study assesses added value – returns relative to a policy benchmark – before and after costs^{B2}. **Exhibit B1** shows value-add increasing with asset-owner size, both before and after costs. Larger asset owners have added around 30 bps per annum of additional return after costs, whereas smaller asset owners have marginally lost value. The results are statistically significant.

It is worth noting that the additional added value is not the result of taking more (active) risk. In fact, the opposite is true, with tracking error around 35% lower for large asset owners compared to the smaller group (1.9% compared with 2.9% per annum). This is likely to be due to greater diversity in active management rather than a more passive approach.

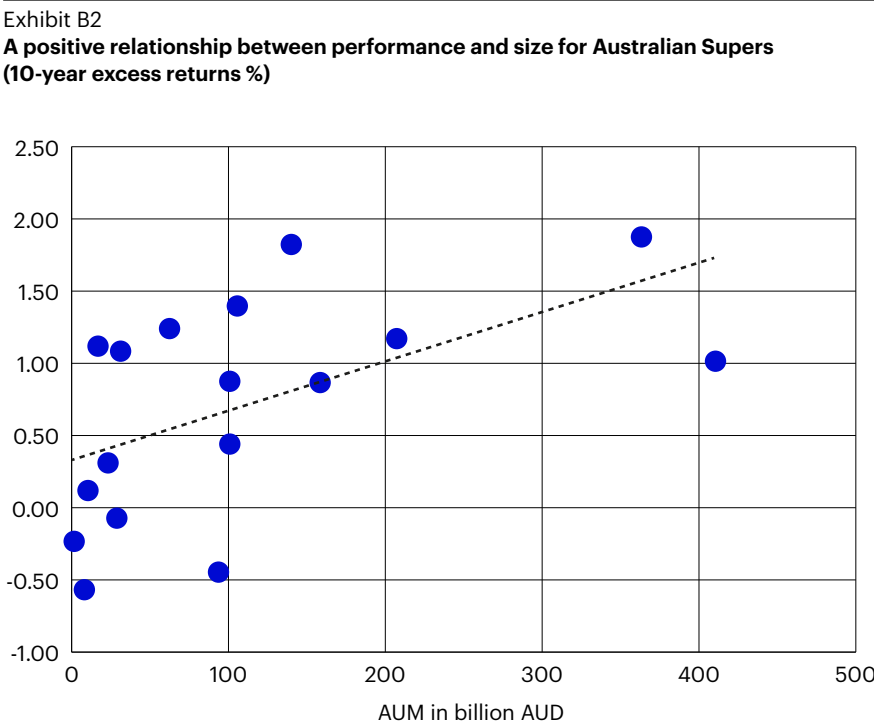
A recent paper by Monash University assessed the net added value of default options offered by Australian Superannuation Funds. Performance for each fund was calculated relative to a bespoke benchmark of public market indices^{B3}, with an average excess of around 1% per annum over 10 years. Importantly, larger funds delivered more added value than smaller funds, with a statistically significant relationship between fund size and return – see **Exhibit B2**. Whilst individual results vary and the data is limited, a doubling in size lead to an additional 50 bps per annum return on average. The authors suggest size as a proxy for various factors such as governance, asset mix and implementation capability as causes of the relationship.

Scale effects have been documented elsewhere. AQR^{B4} note that among institutional investors, larger institutions have performed better than smaller ones quoting (amongst others) a Dyck-Pomorski (2011) analysis of North American pension funds and their literature survey with similar findings for endowments other investor groups. A UK Government review of DC investments^{B5} notes fund size as a clear driver of performance, although largely through reduced operating expenses.

Perhaps to state the obvious, additional returns are not guaranteed. Recent performance for many of Canada’s Maple 8 funds has been poor, at least relative to benchmarks (absolute performance has been healthy). Much of the under-performance has been down to private markets, particularly private equity. There is some discussion on the appropriateness of the public market benchmarks used, and potential for misleading conclusions^{B6}. Benchmarking private assets is a thorny issue and beyond the scope of this paper.



Source: ‘A Case for Scale’ CEM Benchmarking (2022).



Source: ‘Performance of Super Funds in Australia: December 2025 Update’ Monash Business School (2025).



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Exhibit B3
Added value due to size, internalisation and active management

Value-add (bps per annum)	All assets	Excluding private equity and real estate
Gross Value Add (before costs)		
Size (10x increase)	20	3
100 vs. 0% internal	-5	-10
100 vs. 0% active	71	55
Net Value Add (after costs)		
Size (10x increase)	20	11
100 vs. 0% internal	19	7
100 vs. 0% active	22	20

Source: 'A Case for Scale' CEM Benchmarking (2022). Bold figures are statistically significant.

Drivers of added value

To unpick the drivers of added value the CEM Benchmarking study shows the separate impact of fund size, extent of internalisation, and use of active management. **Exhibit B3** shows the effect of each factor on gross and net added value, both with and without private markets (equity and real estate). Results in **bold** are statistically significant.

There are several interesting points from the table:

- Size.** Larger funds have added value *before* costs; 20 bps per annum for a 10x scaling. This has mostly been due to private rather than public markets (gross value-add is not significant if private markets are excluded). Larger funds have benefitted from a combination of selection skill and greater private market allocations;
- Size.** Larger funds have added value *after* costs in *both* private and public markets. For public markets, cost reduction is the main advantage, but skill is also an advantage for private markets;

- Internalisation.** *Before* costs, internal teams are not significantly better or worse than external managers; i.e. they have similar levels of skill;
- Internalisation.** Internal teams have added value after costs, but only when private assets are included. This suggests an important benefit of internalisation is cost reduction, especially in private markets. Conversely, it implies that high-cost access to private markets may yield little added value;
- Active management** has added value *before* and *after* costs, 71 and 22 bps per annum respectively. Since active vs. passive management is mostly relevant for public markets, the results are similar whether private assets are included or not.

We comment on these findings further below.



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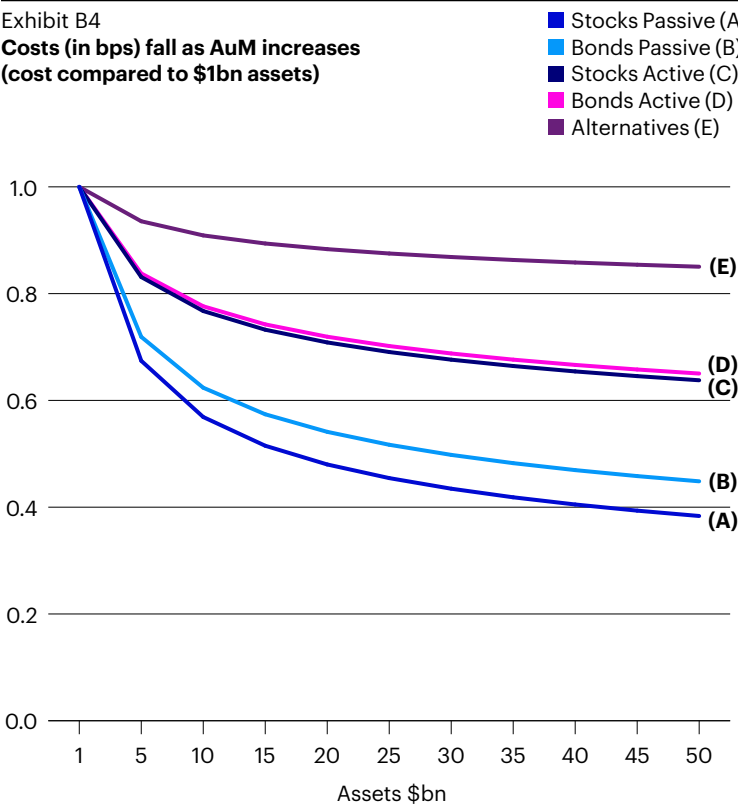
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The scale advantage

Larger asset owners should benefit as fixed costs fall (as a percentage of AuM) and bulk-buying power increases. Research^{B7} suggests that scale economics follow a power law relationship; costs increase at less than a 1:1 rate with AuM. The effect is shown in **Exhibit B4** with falling basis-point costs for various asset classes as a function of asset size. The effect is most pronounced for passive management (due to commoditisation), then active management in public markets, and less so for alternative assets.

We explore cost savings, as a form of ‘operational alpha’ further in Section C.

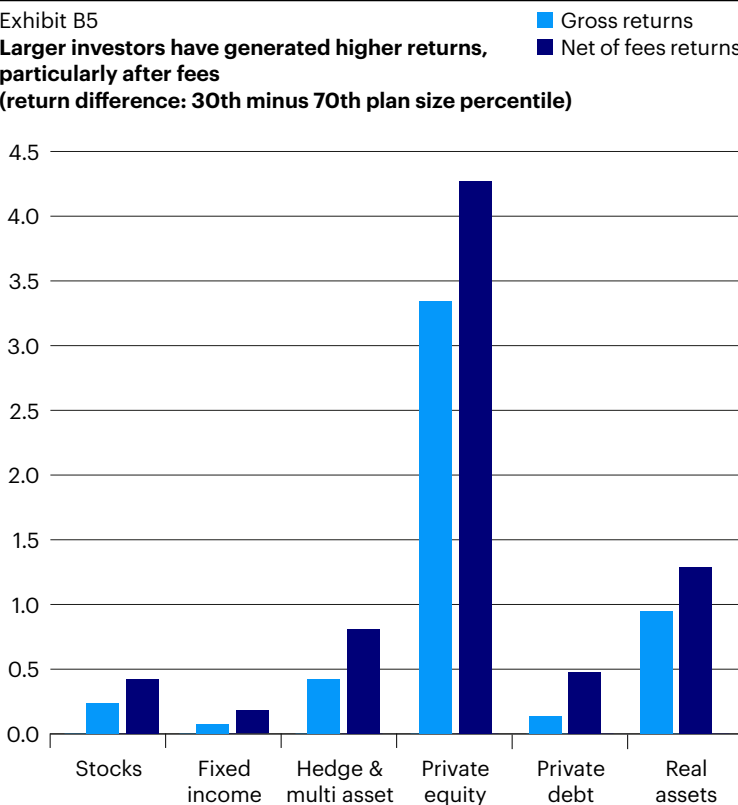


Source: ‘Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans’ Timmermann et al 2023, Table 6 and author’s calculations. Results are from a regression and therefore individual plans will vary around the average levels shown.

Private market investments

Larger funds have benefitted from private markets in three ways: higher allocations (13% vs. 6%), greater added value for private vs. public markets, and greater added value *within* private markets compared to smaller funds.

A paper by PGIM^{B8} breaks down returns of large vs. small asset owners for a range of asset classes – see **Exhibit B5**. The before-cost return differences for private equity are statistically significant. After-cost return differences are larger and significant for most of the asset classes (4 out of 6), as well as for alternative assets combined and for the total portfolio (not shown).



Source: ‘The Scale Effect: How size shapes investment governance and allocation’ PGIM (2024), Figure 12. The chart is based on Table 8 in ‘Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans’ Timmermann et al (2023).

Internalisation

It is interesting to note that internal teams appear to have similar skill levels to external managers, i.e. a similar before-cost added-value. This challenges the external multi-manager specialist model widely used in institutional management, with the consequent high number of managers needed to cover a range of asset classes or sub-asset classes, often several per ‘sleeve’. It also implies that asset owners are in competition for the best talent with their external peers.

Active management

At face value, positive active returns go against ‘accepted wisdom’ that active managers struggle to beat market indices, especially after costs. We explore this issue a little further in the next section.



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But what about diseconomies of scale?

Despite the above, it might be reasonable to assume that returns are eroded as AuM grows. As assets grow, portfolio holdings increase as a percentage of trading volumes (liquidity) and are therefore, without careful management, more costly to trade. Similarly, large assets and inflows may lead to difficulty in finding attractive opportunities. At an organisational level growing hierarchies could slow down decision-making and dampen incentives.

Several studies covering US mutual funds do indeed document diminishing returns^{B9}. For example, Zhu suggests a fall in excess return of 8 bps per annum for every doubling of AuM in US equity mutual funds. More generally, equilibrium models suggest that funds managers should logically allow assets to grow until net returns are close to zero, absorbing the lion's share of excess returns in fees.

Pomorski et al^{B10} examine this thesis for pension plans and observe the opposite, i.e. increasing returns to scale. As well as better cost management generally, they note that larger plans are better able to adapt; for example, in choosing where and how to use active or external management. Similarly, larger plans typically make greater use of alternative investments, where scale has an extra advantage in negotiating fees and terms. In addition, they suggest that better governance might also be a factor, and present evidence for a link between governance (using a broad proxy) and returns.

Nevertheless, investors should remain mindful of the potential for large scale to impact returns. A leading example is the Norwegian Government Pension Fund, with some £1.7 trillion of assets, that invests predominantly in passively managed public market assets. In part, this is driven by a preference for liquidity, transparency and low costs.

With the largest funds growing solidly...the sustainability and performance gaps between the industry giants and the rest will only widen further without urgent action by small to medium funds... APRA will continue to encourage trustees facing performance or sustainability pressures to seek a strategic merger that can quickly deliver improved outcomes.

Australian Prudential Regulatory Authority
March 2022



How much is enough? When does scale pay – £25 billion or more?

Many scale benefits increase proportionately with size. However, a critical size is likely needed to successfully manage certain assets, particularly private markets, in-house.

A UK Government paper^{B11} reviewed several studies exploring scale advantages for governance, bargaining power, investment breadth and in-house management. Overall, it suggests somewhere in the range of £25 billion to £50 billion as the starting point for investments to be brought in-house, and to facilitate greater allocations to private assets. As funds approach £50 billion or more, scale helps with direct private equity investments. It noted for example that NEST progressed investments in private markets as they reached £30 billion, making the case for “stronger negotiating conditions” when making these investments. Direct private equity investment is more challenging – see case studies for USS and Aware Super, both substantial asset owners that continue to access private equity through funds and co-investments. The figures are broadly consistent with data in ‘Achieving Critical Mass’ which gives average assets managed via different implementation methods in private markets, from fund-of-funds to direct management^{B12}.

In Australia, the regulator APRA^{B13} reported that funds of more than AUD 50 billion (£26 billion) were more easily able to spread costs, with half of the smaller funds facing sustainability challenges. Similarly, AUD 60 billion has become a commonly discussed benchmark for scale benefits.

Overall, a suggestion is that £25 billion is a reasonable **starting point** from which scale benefits become significant. £50 billion (or more) is a more realistic starting point for direct private equity investment.



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References

B1.

'A Case for Scale' CEM Benchmarking February (2022).

B2.

Policy benchmark based on the Strategic Asset Allocation with index returns used for each asset class. Value-add therefore captures the effect of additional 'active' returns within each asset class and dynamic variations in allocation from a strategic mix. Whilst this makes results more comparable, it misses any benefits from greater sophistication and efficiency of the policy portfolio itself. We cover this in Section C. Note also that the policy benchmark allocations and choice of indices appear to be self-reported.

B3.

'Performance of Super Funds in Australia: December 2025 Update' Monash Business School (2026). Benchmark allocations are fitted using regression analysis.

B4.

'Active and Passive Investing-The Long-Run Evidence' AQR (2018).

B5.

'Trends in the Defined Contribution trust-based pensions market' UK Government (2023).

B6.

For example, see Rethinking Benchmarks for Private Equity July 2025 <https://sipametrics.com/rethinking-benchmarks/>.

B7.

'Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans' Timmermann et al (2023).

B8.

'The Scale Effect: How size shapes investment governance and allocation' Jarvis (2024), Figure 12.

B9.

See for example 'Diseconomies of Scale in Active Management: Robust Evidence' Pastor et al (2022), 'Informative fund size, managerial skill, and investor rationality', Min Zhu (2018), 'Decreasing Returns to Scale, Fund Flows and Performance' Harvey et al (2021).

B10.

'Is Bigger Better? Size and Performance in Pension Plan Management' Pomorski et al (2011). Public vs. Private and US vs. non-US ownership is used as a proxy for governance.

B11.

'Pension fund investment and the UK economy' DWP (2024).

B12.

'Achieving Critical Mass' Nangle (2025), Exhibit 17. An assumed 10% private market allocation implies a total fund size of around £15 billion to invest as a limited partner or via co-investments, and a 20% allocation implies a total fund size of around £40 billion to invest directly.

B13.

Australian Prudential Regulatory Authority press release 'Small and medium super funds face sustainability challenges' (2022).



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Applying scale and governance: The asset ownership premium



Key takeaways

- The asset ownership premium = investment alpha + operational alpha.
 - Investment alpha requires portfolio sophistication (and complexity).
 - Operational alpha is likely smaller but potentially more dependable.
- Direct asset ownership improves transparency, control and risk management.
- Successful asset ownership is not a free lunch: scale and governance are needed.
- A plausible range for an asset ownership premium might be 25 to 125 bps per annum.
- Savers could improve retirement savings by 5% to 35%, or around £20,000 to £100,000 on average.

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Asset ownership refers to the breadth and depth of internal decision-making across the spectrum of investment activities, as well as ownership in the direct physical sense. It is about what the ‘system’ does.

Governance is about how the system works. Key ingredients include clarity of mission, the employment and retention of skilled resources, the inter-connectedness of the system parts (teams), and the decision-making process and structure. Effective governance is tricky, particularly for large organisations and/or those with complex portfolios.

This section expands on ways in which asset ownership and governance can enhance portfolio outcomes. We group these added-value activities into ‘investment alpha’ and ‘operational alpha’. Investment alpha is associated with portfolio sophistication (and complexity) and operational alpha is associated with portfolio efficiency. Scale is a critical enabler in these activities, particularly operational alpha, and high-quality governance could be seen as a differentiator.

We characterise the combined effect of investment and operational alpha as the ‘asset ownership premium’ and estimate a plausible range of returns. The premium is the additional potential return (relative to small fund – defined here as £5 billion or less – with a simple-equity-bond mix) of a portfolio running at the same level of risk but applying investment and operational alpha.

Investment alpha

Portfolio breadth: sophistication and complexity

Many asset owners invest in simple equity-bond portfolios, often passively managed. There are many good reasons for this, including cost constraints, availability or feasibility of adding internal resources, transparency and beliefs.

However, increasing portfolio breadth across a wider range of assets has potential benefits:

- Adding assets with higher return potential, particularly relative to the risk taken;
- Increased portfolio diversification from assets that are not perfectly correlated with each other;
- Accessing greater alpha opportunities: assets that could add more value over a relevant policy benchmark.

A broader investment universe can also introduce additional risks, and the benefits of diversification and enhanced returns are not guaranteed.

We focus on alternative assets as an example, but similar arguments apply when adding more specialised areas of traditional markets such as emerging market equities, small cap equities, or high yield bonds.

Most non-traditional assets come with higher costs. It is important that costs do not outweigh the benefits, and hence why scale is an important factor in improving net outcomes – see **Operational Alpha** later.



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Higher returning assets (risk adjusted)
Over the historical period covered by the CEM Benchmarking study, alternative asset classes produced higher risk-adjusted performance than equities. The return-risk ratio (Sharpe ratio) was 0.54 to 0.65 for alternative asset classes, compared to 0.53^{C1} for equities. Although not a guarantee of future performance, historically, at least, this confirms that allocations to alternative assets would have benefitted portfolios.

Exhibit C1 shows future risk and return expectations for selected asset classes^{C2}. As can be seen most alternative assets show good risk-reward trade-offs, i.e. plot ‘above the line’. Asset owners need to make their own assessments of future returns, and these will vary over time. This is no easy task. Nevertheless, it is rational to expect better risk-adjusted performance from alternative assets because they carry additional risks and have less liquidity and greater complexity. Any additional returns may emerge over long periods, however.

Portfolio Diversification
Portfolio diversification arises when assets (or asset classes) do not move in sync with each other, i.e. correlations are less than one. The correlation benefit means that adding assets to portfolio improves its risk-reward trade-off. Using forward looking assumptions again, **Exhibit C2** shows an example of introducing a 20% alternatives allocation into two portfolios^{C2}. As can be seen, expected returns are improved for the same level of risk, in this example by around 40 to 50 bps per annum.

Increasing portfolio breadth requires additional skills, resources and governance to manage. Not surprisingly, there is a link between higher governance, scale and portfolio diversity. For example, a study of Swiss pension funds^{C3} shows a significant link between the percentage of risky assets (including alternatives), fund size and governance.

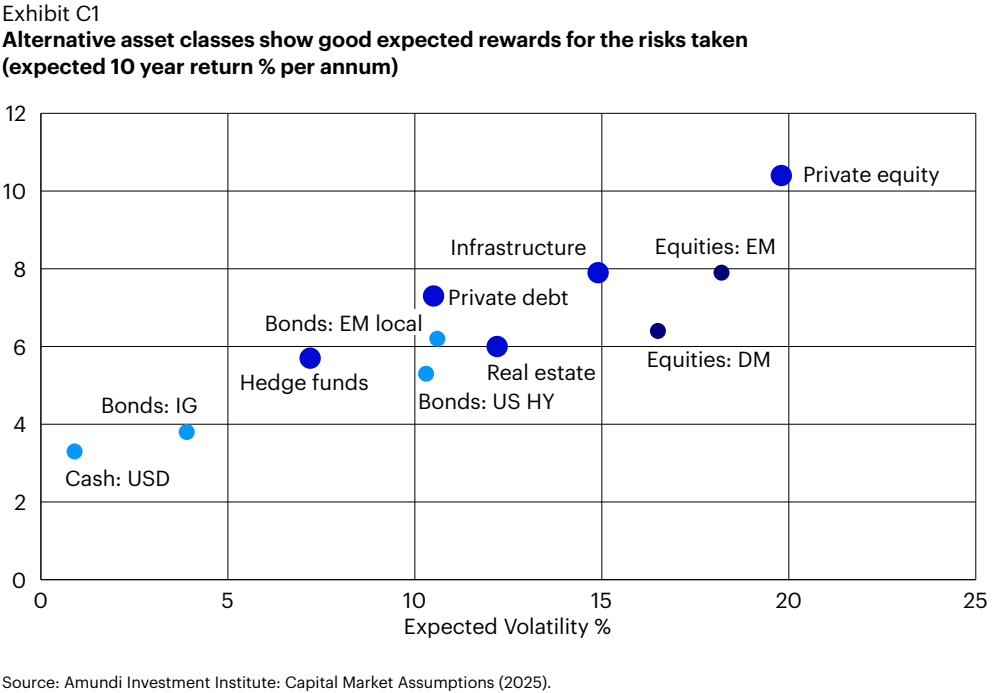


Exhibit C2
Portfolio construction can improve returns for a given level of risk

	Moderate Risk Portfolio		Higher Risk Portfolio	
	No Alts	20% Alts	No Alts	18% Alts
Return	5.6	6.0	6.8	7.3
Volatility	6.0	6.0	11.9	12.0

For illustrative purposes only. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties and assumptions.
Source: Amundi Investment Institute.

Alpha opportunities
Exhibit B3 (page 17) shows that net added-value has historically been higher when private markets are included – first vs. second column. Given the lack of transparency and homogeneity in these asset classes, it is intuitive that skilled investors might be able to add more value than in public markets.



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Active management

The positive return from active management noted in the CEM Benchmarking paper is perhaps surprising given the generally accepted wisdom that active managers, on average, don't or can't beat market indices especially after costs^{C4}. The result is plausible if institutional investors:

- Select external managers that are better than the average, or have internal teams that are more skilful than the average external manager;
- Are more considered in the use of active management, i.e. use more active management in less efficient markets and vice versa; and / or
- Adapt to changing market conditions in the use of active management.

A long-run study by AQR^{C5} shows evidence that institutional managers have added more value than mutual fund (retail focused) managers, both before and after allowing for risk. The paper also finds evidence of superior returns in small-cap US equity and non-US mandates than large cap US equities. In other words, being selective with the use of active management may be beneficial. The authors also speculate that markets dominated by less sophisticated or non-profit making organisations could make fertile ground for greater returns but note a lack of evidence.

Overall, some caution should be exercised in assuming a similar level of active management success looking ahead.

Portfolio decision process: Strategic Asset Allocation vs. the Total Portfolio Approach (TPA)

Most institutional investors employ a Strategic Asset Allocation (SAA) framework for setting and implementing investment policy. The SAA is typically set by an investment board as a long-term target allocation across a set of asset classes, say 5 to 15. Managers are appointed for day-to-day investment with an objective to meet (passive) or beat (active) a benchmark index, often with tight constraints. The SAA is reviewed periodically – typically every three years – and deviations from the SAA are normally modest.

In contrast, TPA can be thought of as an investment framework that treats the portfolio as an integrated whole. TPA starts with overall goals and allocates capital based on how each investment contributes to those goals, with assets effectively 'competing' for capital. The portfolio and decision-making process are more flexible and adaptive to changing market conditions. See **TPA Explainer Box** (next page) for a detailed comparison of the approaches.

Several positive arguments have been put forward for TPA^{C6}:

- A TPA process is more aligned to fund objectives since they are ingrained more directly into decision-making. In contrast, the SAA portfolio itself becomes the centre of attention, rather than a means to an end;
- TPA is more responsive to changing markets conditions. In contrast SAA is a longer-term, through-the-cycle, portfolio, and therefore less dependent on market conditions. Any required change to the SAA also takes time to organise and implement;
- TPA allows more flexibility to invest in opportunistic ideas, or assets and strategies that are hard to categorise. SAA is more restrictive as it typically defines asset classes rigidly, with less tolerance for out-of-category assets;

- Illiquid assets cannot easily be managed in a more rigid SAA process since they cannot easily be rebalanced to target weights. Greater TPA flexibility can take this into account.

Whilst there are advantages to TPA, it comes with significant governance challenges, both organisational and operational. For example:

- Individual team processes and objectives may be harder to define;
- Varying allocations mean that capital cannot be committed with as much confidence, raising practical issues especially with external managers;
- Performance evaluation is more difficult to assess as it does not fall easily into the stock selection and asset allocation decomposition typically used with SAA.

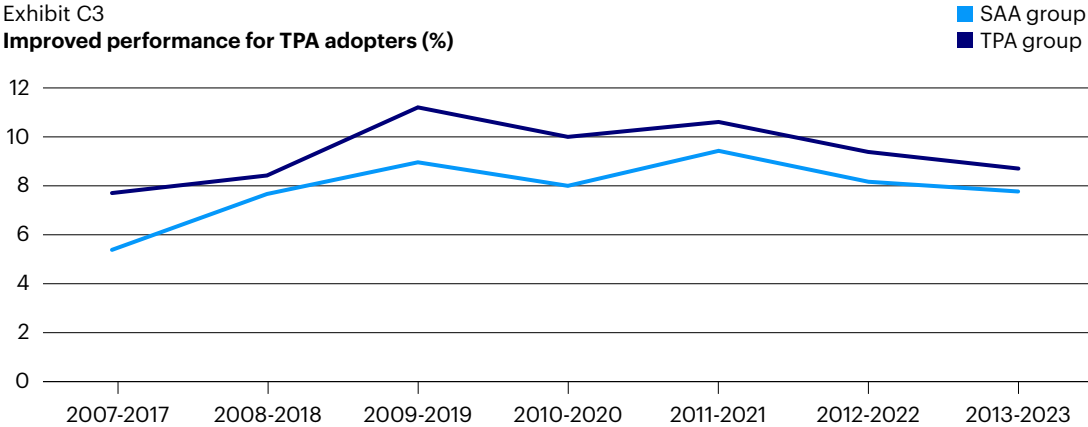
Is there a TPA premium?

A limited number of asset owners have adopted TPA to date, so evidence is more anecdotal than conclusive. Research by PGIM^{C6} examines performance for several large asset owners, split between funds that self-identify as adopting TPA and the remainder. The paper confirms that TPA-adopters have shown a more dynamic asset allocation, with an average year-on-year allocation change of 6%, which compares to 3% for non-TPA funds.

More strikingly, there is a marked and persistent difference in performance between the groups. **Exhibit C3** shows rolling 10-year performance, with the TPA group out-performing by 1.5% per annum on average. The study confirms that the performance is not the result of taking additional risk.

Analysis by the Thinking Ahead Institute (TAI)^{C7} also shows a return advantage of around 1.3% pa depending on level of TPA adoption. For this study, TPA adoption was assessed by the TAI, with the return difference measured between high and low scoring TPA-adopters.

Given this very large out-performance, some caution is warranted. As well as limited data, it could be that TPA is a proxy for a range of other activities covered above, for example internalisation and use of alternative assets.



Past performance does not predict future returns.
Source: 'Rethinking Diversification: Lessons from a Total Portfolio Approach' PGIM (2025), Figure 8.



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Explainer: What is the Total Portfolio Approach (TPA)?

A Total Portfolio Approach¹ has been gaining investor interest over the last few years, particularly among larger asset owners. It can be thought of as an investment framework that views a portfolio as a single, integrated

whole rather than a collection of separate asset classes. Instead of focusing on a fixed 'Strategic' allocation, TPA starts with the investor's overall objectives and allocates capital based on how each investment

contributes to those goals. Assets effectively "compete" for capital depending on their role in improving total portfolio outcomes, including returns, risk, liquidity, and flexibility.

The table below gives examples of the different approaches.

Area	TPA framework		SAA / traditional framework
Board / Policy	Set and monitor high level objectives, e.g. CPI + 4%, liquidity, risk tolerance etc.	↔	Set and monitor Strategic Asset Allocation (SAA) and implementation.
Board level monitoring	Relative to higher level objectives. More sophisticated attribution required, e.g. use of reference portfolios.	↔	Relative to SAA, with asset allocation and stock selection decomposition.
Portfolio decision making	Delegated to internal CIO and team. Team meetings more frequent and flexible.	↔	Board with advice (internal or external), calendar-based meetings.
Typical Investment structure	Flexible / collaborative central team, flat structured working across asset classes seamlessly.	↔	Asset (and sub-asset) class focused specialist teams, benchmark + mandates.
Asset allocation	Flexible, allowing for market conditions ² . Consider exposures holistically (e.g. public and private equities). Focus on risk allocation.	↔	Relatively limited vs. SAA (may use specialist TAA). Focus on capital allocation. SAA review every (say) 3 years with a lag.
Investment evaluation	Bottom-up ³ , relative to objectives.	↔	Within asset class, relative to benchmarks /mandate parameters.
Opportunity set	Can consider all assets / strategies based on merits.	↔	Limited outside of approved asset classes.
Risk management	Relative to objectives. Holistic across portfolio. Consider multiple factors and time horizons.	↔	Tracking error focused within asset classes (SAA risk considered as part of SAA review).
Exposure management	Broad portfolio-level exposure management for overall level of risk and 'beta' exposures ⁴ .	↔	Limited exposure management for risk, e.g. FX.
ESG	Fully integrated into risk management and portfolios.	↔	Some ESG aware/tilted mandates.

For illustrative purposes only.

1. See Total portfolio approach (TPA): Curating the perfect playlist – WTW UK and 'What is Total Portfolio Approach? A Practitioner Summary' Elkamhi, Lee (2025). Arguably sophisticated asset owners have been including elements of TPA for many years.
2. Asset allocation in illiquid assets will be restricted, but an overlay approach assists in asset allocation/exposure management.
3. In theory, asset class distinctions are not needed if all investments are evaluated relative to objectives. In practice, expressing positions in asset class terms may still be used.
4. Broad beta management (especially via and overlay) can serve a number of purposes: risk management, dynamic asset allocation, leverage (increasing /decreasing aggregate exposure).

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Operational Alpha

Operational alpha is a catch-all term for a range of activities that reduce direct costs and avoid ‘drag’ by managing portfolios efficiently. We also include risk management as an important activity under this banner. One big advantage of operational alpha is its greater certainty in generating added value – “costs are certain, outcomes are not” – compared to investment alpha.

Cost savings

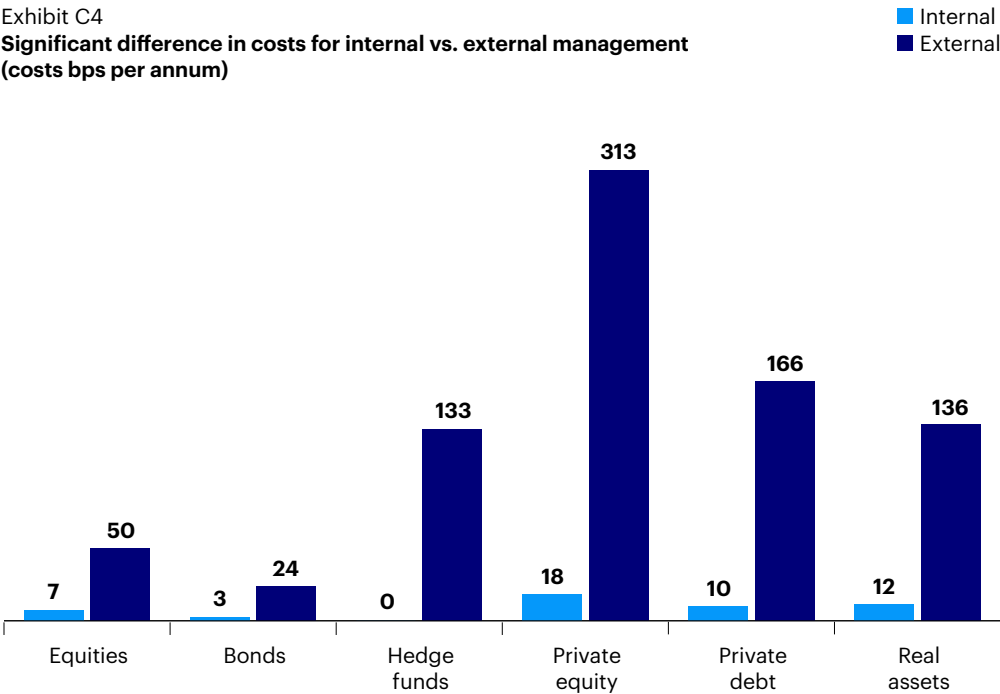
Internal management
Exhibit C4 shows costs for internal and external active management across different asset classes^{C8}. As can be seen:

- There is a significant difference in internal vs. external management costs. Internal costs in public markets are nearer to passive than active management levels. The cost-gap is even wider for alternative / private asset classes.
- There is a significant difference in the costs of managing alternative / private asset classes vs. public equities and bonds. This is particularly the case for external management and in Private Equity.

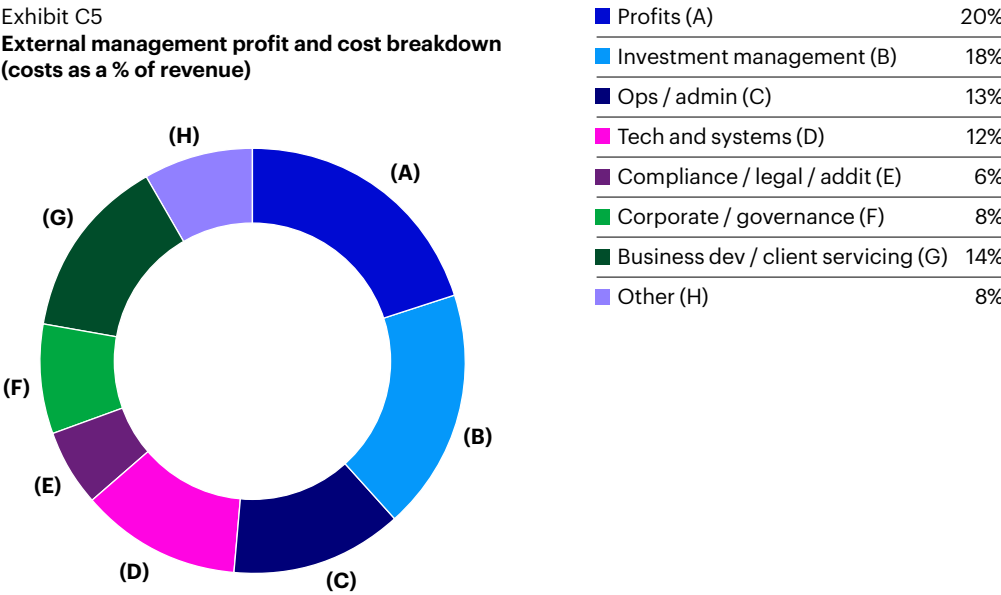
The cost difference is much smaller for passive management (not shown) at around 1 bps. However, there is still an advantage to passive internalisation in a proportionate sense – about half the cost.

The cost difference is understandable: asset owners are non-profit organisations, operate a single ‘business line’, and do not need to engage in external client servicing, marketing or sales. To corroborate this, at least broadly, **Exhibit C5** shows a breakdown of investment management revenue by profits and functional costs^{C9} which suggests that in-sourcing should be around half of the cost of external management. Data for passive management appears consistent with this, but in-sourcing appears significantly cheaper for active management. Possible explanations are that asset owners:

- Manage more straightforward assets internally, for example large cap and developed markets;
- Manage a narrower range of mandates within each (sub) asset class, avoiding a plethora of variations with differing constraints, risk targets etc.;
- Run ‘leaner’ teams, perhaps relying more on external providers such as brokers and third-party research firms (but still at low cost); and / or
- Pay below external market rates for staff, perhaps due to a broader employee value proposition.



Source: Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans’ Timmermann et al 2023.



Source: The Investment Association, 2023.



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The importance of implementation in private markets

Exhibit C6 shows costs for accessing private markets in different ways, from Fund of Funds (FoFs) to internal direct investment^{C10}. There is a dramatic difference between i) approaches that use external management for deal and / or manager selection (Limited Partnerships and FoFs) and ii) approaches where asset owners are involved in deal selection (co-investments and internal selection). Co-investments are normally offered to asset owners at low (or zero) fees, so the costs of co-investing and internal management are similar.

The large cost difference between external and internal management in private markets is both a challenge and opportunity for asset owners. Investing in direct deals (and to an extent co-investments) requires additional skills, both in deal sourcing (for directs) and deal evaluation. Only larger asset owners can build cost-efficient resources to do this effectively.

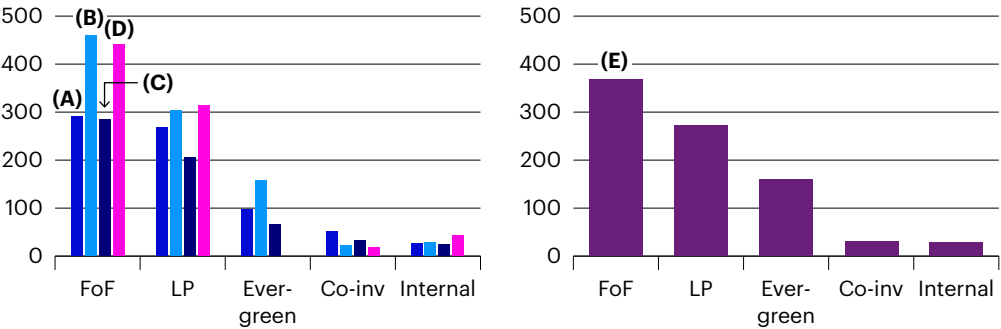
Buying power

Not surprisingly, when negotiating terms with external managers and service providers, size helps. There are several reasons why fees fall with asset size: provider fixed costs are lower as a percentage of AuM; there are economies of scale in a large client relationship (versus 10 smaller ones, say); and a large client may confer some reputational value. As an illustration, Exhibit C7 shows a selection of external manager mandates, divided into small and large^{C11}. As can be seen, there is a significant saving for large mandates; on average about 20 bps per annum, representing a 30% fee reduction vs. small mandates. Very large asset owners may enjoy further discounts, particularly if part of a broader partnership arrangement.

Direct ownership (segregated assets)

Smaller investors typically hold assets in pooled funds run by external managers. As well as investment management fees, pooled fund costs cover all aspects of the fund’s operations: custody, administration, accounting etc. Often these funds can be sub-scale, particularly if smaller specialist managers are used. Operational costs can easily be 10 to 15 bps per annum. In contrast, larger asset owners typically hold assets directly in segregated accounts. With sufficient scale the costs of engaging specialist internal staff and external providers should be less than 10 bps per annum. Where pooling is needed (typically in DC), asset owners can separately engage specialist providers to access operational and tax efficient vehicles or ‘wrappers’ (for example a life fund in the UK).

Exhibit C6
Significant differences in costs in private markets by implementation method (basis points (bps) of annual investment cost)



Source: ‘Achieving Critical Mass’ Nangle, The People’s Pension, 2024, using data displayed in the NBIM benchmarking study.

Exhibit C7
Significant external manager fee savings for large mandates (fees in bps per annum)

Mandate type		Small mandate	Large mandate	Saving
Equity	US Large Cap (LC)	46	34	12
	US Small Cap (SC)	71	55	16
	Global / Non-US LC	62	37	25
	Global / Non-US SC	86	52	34
	EM / Frontier	69	44	25
Fixed Income	Active Core	20	13	7
	HY / Loans	40	37	3
	Global FI	37	20	17
Real Assets	Private Real Assets	98	62	36

Source: ‘2025 Investment Management Fee Study’ Callan institute (2025). The smallest and largest mandate sizes are used for comparison, with size varying by mandate. Actual fees rather than published fees.



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Efficient portfolio management

Various technical aspects of portfolio management can be sources of added value, as shown in **Exhibit C8**. For example, ensuring competitive interest rates for cash holdings,

efficient trading and securities lending. Each activity on its own may add a few basis points, but the pennies add up. It is hard to find sources that fully quantify its value, but if executed well, savings could be at least 10 to 20 bps per annum^{C12}.

Exhibit C8
Adding up the pennies: Sources of operational alpha

Operational alpha area	Source of added value
Trade Execution	Centralised (fund level) trading can be more efficient than via multiple external managers.
FX / derivative costs	The costs of rolling and trading FX and derivatives exposures can be reduced with careful management.
Cashflow planning	Cashflow planning can keep cash balances low, allowing more investments in growth assets. Techniques can help to smooth cashflow volatility (e.g. staggered rolling of FX / derivatives).
Cash management	Sweeping cash into T-Bill and money market accounts should generate higher returns than bank account cash.
Equitisation	Derivatives can be used to add ‘growth asset exposure’ to cash balances.
Securities lending	Assets owners can earn revenues by lending securities to other market participants. Careful counterparty risk management is needed.
Use of internal leverage	The borrowing costs for (modest) leverage at the fund level should be lower than those embedded in the invested portfolio. On a risk-equivalent basis, the invested portfolio can be run at lower leverage.
Tax efficiency	Ensure all relevant taxes are reclaimed. Applies particularly to dividend withholding tax.
Low-cost investment vehicles	For DC asset owners, unitisation is needed for underlying investors. Using an efficient vehicle/provider can save costs; for example, using a life fund wrapper in the UK.
New issuance and index constituent management	Access to IPOs, secondary, block trades offered at a discount. Flexible trading around index change dates. Useful for index portfolios with some tracking error tolerance.

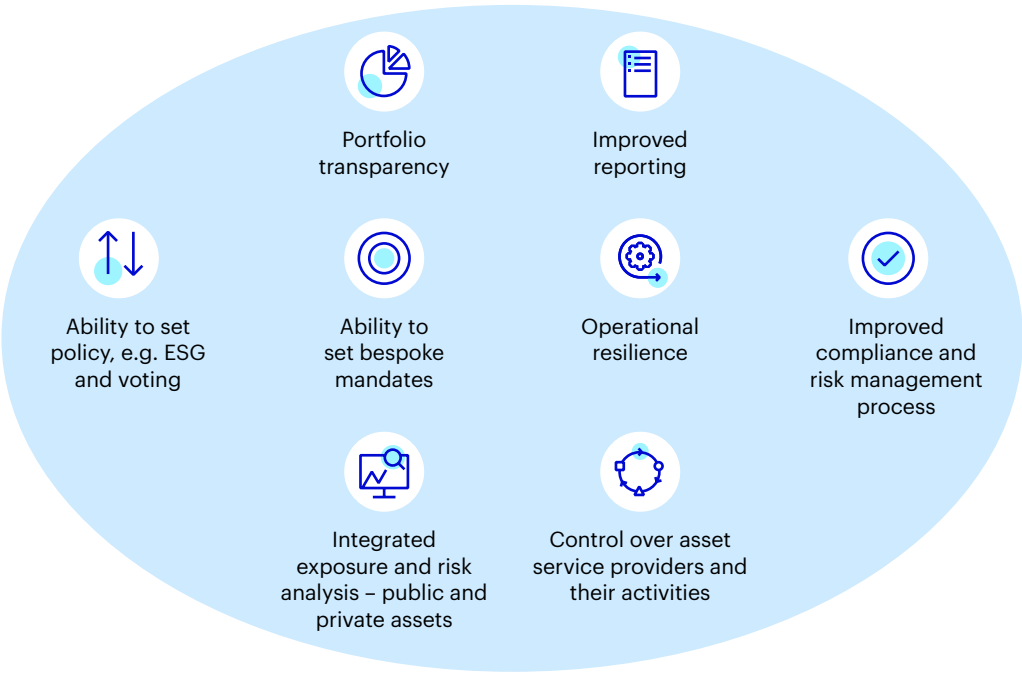
For illustrative purposes only.

Direct ownership: transparency, control and risk management

Owning assets directly via segregated accounts has a number of potential advantages, as illustrated in **Exhibit C9**. The benefits are hard to quantify in return terms, but nonetheless important. Broadly speaking the advantages come from portfolio transparency, ability to set bespoke investment mandates and policies and select / manage specialist service providers. High levels of transparency are

particularly important for large public plans. Control and risk management are of course important in themselves but heightened by increasing regulatory scrutiny. These potential advantages should be weighed against possible disadvantages, including higher implementation and fixed costs, increased operational and governance requirements, and potentially greater concentration risk where the size or composition of the portfolio limits diversification.

Exhibit C9
Advantages of direct asset ownership: Risk management and control



For illustrative purposes only.

Key benefits of consolidation include: better governance, economies of scale...the ability to move investment in-house...access to a wider range of assets...and improved bargaining power.



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The value of asset ownership – notable examples

As noted previously, scale and governance are needed to add value effectively. A full discussion of governance is beyond the scope of this paper. But broadly it could be thought of as rules, processes and frameworks to:

- understand and articulate mission objectives and risks;
- make and oversee effective decisions;
- hire (attract and retain) and contract skilled resources; and
- effectively organise and manage internal and external resources, including effective decision-making.

To add a little colour, we give two examples of value created from scale and governance.

GPFG runs a low complexity portfolio and therefore focuses mostly on operational alpha. Its internal manager NBIM reported all-in costs of 4 bps in 2025, with returns relative to a passive benchmark of 25 bps pa over the last 20 years^{C13}.

In contrast, CPP invests in a diverse portfolio with significant allocations to private markets (~50%), pursuing both operational and investment alpha. Combined internal and external management costs run at around 60 bps^{C14} and net returns over the last 10 years have exceeded benchmarks by 0.7% per annum (noting behind-target performance over the last five years – see comments on Maple 8 fund performance later).



Asset ownership is not a free lunch!

Challenges to greater asset ownership

Whilst the above makes a positive case for asset ownership, there are many challenges and costs involved when developing significant internal capabilities. We cover these in more detail in Section G, but broadly fall under the following categories:

- Culture
- Governance
- Attracting and retaining talent
- Operational complexity, technology, data and systems
- Risk and risk management
- Liquidity management

There is also a danger that institutions overestimate their ability to build a competitive asset management organisation, or the timeframe to do so. For example, the Investment Innovation Institute^{C15} believes that many organisations suffer from “planning fallacy and overconfidence bias” when attempting to build internal investment teams.



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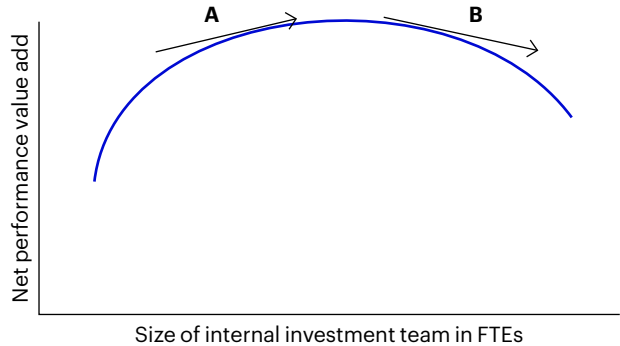
Is bigger always better? The limitations of scale

The above highlights some challenges and therefore ‘balancing forces’ when pursuing higher levels of asset ownership. The Thinking Ahead Institute (TAI)^{C16} refer to this as the ‘insourcing arc’, as illustrated in **Exhibit C10**. Whilst there are economies of scale that produce upward arc, they may be bounded as organisations reach a certain size. It notes that there are examples of this happening when organisations exceed ‘Dunbar’s number’ of 150 employees^{C17}.

The TAI suggest the internal model can lose traction as it matures due to growing cultural and governance problems with team alignment and total portfolio co-ordination. They note that “It is too simplistic to suggest there is an optimal size of asset-ownership team, context varies so widely”.

As well as governance challenges, large funds potentially suffer from diseconomies of scale in terms of capacity and trade costs. As noted in Section B, there is some mixed evidence for this.

Exhibit C10
Arc of insourcing maturity



A: Net performance improves on adding to internal team - Improvements in alignment to fund goals and lowering costs. - Opportunities to add more from high-skill specialised strategies. - Cognitive diversity adds to IP.	B: Net performance declines on adding to internal team - Potential declines in team alignment from cultural issues. - Potential decline in managing inside and outside IP alignment. - Cognitive diversity may dilute IP.
---	--

Source: ‘Global Asset Owner Peer Study Report’ The Thinking Ahead Institute, 2025.

Improved outcomes are not guaranteed!

Whilst research suggests positive evidence for returns to scale and for greater asset ownership, this is true **on average** and over long periods of time. For example, whilst the Maple 8 and larger Australian super funds have shown positive 10-year returns over their benchmarks **on average**, a reasonable proportion show below benchmark performance. Specifically, 2 of Maple 8 funds show below benchmark returns over 10 years. Similarly, a study by Monash University shows 4 out of 17 funds under-performing their benchmarks over 10 years^{C18}. In aggregate this is around a 25% ‘failure rate’. It could be argued that 10 years is still a relatively short period given the difficulties in fitting appropriate benchmarks to private and alternative asset classes (i.e. some of the issue may be a measurement problem).

Relative performance of the Maple 8 funds has recently been poor, largely down to the last 1 to 3 years. All funds have been behind their own policy benchmarks over the last year, some substantially so. In addition, funds have struggled against simple equity-bond reference portfolios over periods of up to 10 years. This has led to some commentators questioning the approach and purpose of Canada’s largest funds. There is acknowledgement that some of the relatively poor performance has been down to difficulties in benchmarking private assets (equity in particular) when public market indices have been so dominated by a handful of US tech giants^{C19}.

A likely compounding issue is the rise in interest rates since 2022 hitting the valuation of longer duration assets which are in part held to match DB liabilities. It is also worth noting that the funds have performed well in absolute terms and relative to ‘fundamental’ benchmarks such as inflation and liabilities.

Exhibit C11 summarises recent performance for UK workplace pensions, Australian Superannuation funds and Maple 8 funds. The performance is not fully comparable due to differing levels of risk, gross vs. net performance and interest rate sensitivities (higher for Maple 8 DB funds). Nevertheless, with better performance for UK pension funds, it illustrates the point that superior performance is not guaranteed for higher levels of asset ownership.

Exhibit C11
Recent Performance of UK pension funds vs. Australian Superannuation funds and Maple 8

	5 Years to December 2025	5 Years to March 2026	10 Years to December 2025	10 Years to March 2026
UK Workplace Pension funds (gross)	9.4	8.1	9.7	9.1
Australian Superannuation funds (net)	NA	6.7	NA	7.7
Maple 8 funds (net)	6.8	7.3	7.2	8.6

Past performance does not predict future returns.
Sources: UK: Capadata, Australia: APRA, Maple 8: Anchor Pacific Investments. Note that the data for the Maple 8 covers 3 funds reporting to end March 2026 and 5 funds reporting to end December 2025. Australian data is for the 10 largest funds.



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Recent UK evidence

Two recent studies in the UK give some further perspectives on the scale / asset ownership question, although mostly referring to other studies.

A paper by the Pensions Regulator (TPR)^{C20} notes the ability of larger UK schemes to negotiate lower service provider fees and generally operate more efficiently. Its own study of UK master trusts also shows a steep fall in total member costs (investment, operational and administration) with fund size. However, it notes that the current UK evidence for superior **gross** (before fees) returns with size is weak, although there is some evidence for Australian funds. Put together, these findings support the case that cost is an important factor in scale benefits.

TPR notes significantly better governance for large vs. small schemes, for example in areas such as trustee expertise, awareness of codes of practice and ESG issues. It notes evidence from Australia that better governance leads to better returns, but that there is insufficient data in the UK at present.

Finally, the paper notes a strong link between private markets allocations and scheme size in Australia. In the UK, scheme size is a factor in the prevalence of a private market allocation for large vs. small schemes, albeit with much lower average allocation than in Australia or Canada.

A paper by the Pensions Policy Institute^{C21} also notes the benefits of scale from cost savings,

which in turn stem from economies around governance and regulation. Larger providers are also seen as better able to leverage the benefits from investing in private equity and infrastructure. They find little evidence for a link between investment performance and size, although data is limited in scope and comparability.

However, it notes that in certain areas scale can have disadvantages, notably due to capacity in – for example – private equity funds or smaller asset classes such as emerging markets. There are also concerns around the accuracy of valuations of illiquid assets and related impacts on reported investment returns and therefore the ability to assess returns and value for money.



Summary of evidence

Exhibit C12 (next page) summarises some key papers referenced in this study. Overall, there is support that larger asset owners have delivered better returns, although many of the studies rely on the same or similar CEM Benchmarking data (in fairness, a broad data set with a long track record). However, the results are true ‘on average’ and there is no guarantee that any one investor will produce better outcomes, particularly over short time periods.

Cost reduction is the most frequently cited advantage of scale. This is intuitive and can be corroborated by looking at the costs of internal vs. external management or large vs. small external manager mandate fees. The benefits

of private market investing are also a common theme, again partly due to the very large cost difference between implementation methods which favours large asset owners. It could also be that historical data is biased by a tailwind of private market performance, although benchmarking issues make added value (vs. public markets) difficult to assess, especially over short to medium periods.

In terms of forward estimation, it seems rational to expect cost advantages of larger funds to persist. Some of the risk management and operational alpha from asset ownership also seem like consistent competitive advantages. There are structural arguments as to why broader asset

allocation should improve risk-adjusted returns, and similarly why less liquid and more complex assets should offer better risk-adjusted returns (if costs are low enough) over the very long term. A flexible approach to asset allocation also helps if, for example, private markets face headwinds for a period of time. In other words, investors should only invest in private markets (or any other assets) where and when they offer sufficient reward, rather than trying to fill some target asset allocation quota (there are some practical limitations to this of course).

Overall, there appears to be sufficient justification to suggest an ex-ante ‘asset ownership premium’.



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Paper	Data	Conclusions
'A case for scale' CEM Benchmarking (2022)	Proprietary database of global funds. Study data 1992 to 2020.	Large institutional investors have delivered excess returns that are significantly higher than smaller funds and with less active risk. The advantages of scale are largely driven by lower costs from internal management and lower fees paid to external managers. This is particularly the case in private markets.
'The Canadian Model: past present and Future' Ambachtsheer (2021)	CEM database. 2006 to 2015. 8 large Canadian funds vs. 132 others. Other studies referenced cover differing periods starting from 1996.	Canadian funds have been more successful than others in adding value, with higher private market allocations, higher internalisation but costs no higher than average. In-sourcing private markets is particularly beneficial. Plan design, mission clarity and good governance are also factors in performance of Canadian vs. US plans.
'The scale effect: How size helps shape governance and allocation' Jarvis (2024)	Various other studies referenced.	Larger funds can invest at lower cost and potentially achieve better net performance. They can afford more capable in-house investment functions, enabling investment in a broader range of strategies. As governance moves from Board to CIO, different methodologies e.g. factor lenses, total portfolio approaches, can be applied. Scale enables investors to develop a domestic advantage and invest locally.
'Assessing megafund pension reforms: insights from international experience, Chapter 2' Pensions Policy Institute (2026)	Various other studies referenced. 5-year data to 2024 for UK and Australian funds, 11-year data to 2025 for Maple 8 and LGPS funds.	There are benefits of scale from cost savings, which in turn stem from economies around governance and regulation. Larger providers are better able to leverage investing in private equity and infrastructure. There is little evidence for a link between investment performance and size however. Capacity is a concern with size. The accuracy of valuations of illiquid assets impacts the ability to assess value for money.
'Performance of Super Funds in Australia: December 2025 Update' Monash Business School (2026)	Large Australian Superannuation funds, 2016 to 2025.	Larger funds have, on average, delivered stronger benchmark relative outcomes with a statistically significant relationship between fund size and long-term excess returns. Factors such as governance, asset mix, or implementation capability, may drive the observed relationship.
'Informative Fund Size, Managerial Skill and Investor Rationality' Zhu (2018)	US mutual fund returns from Morningstar 1995 to 2014.	Finds evidence of decreasing returns to scale and 'sub-optimal' manager behaviour in taking on too much capacity.
'Size and Performance in Pension Plan Management' Pomorski, Dyck' (2011)	CEM data for pension plans 1990 to 2008.	There are positive and economically sizeable returns to scale for large vs. small pension plans. The authors hypothesise that pension plans are adaptable in using internal and external resources and in moving into areas such as private assets where they have a comparative advantage. A third to one half of the advantage comes from cost saving and up to two third from added value in alternative assets.
'Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans' Timmermann et al (2023)	CEM database 1991 to 2019.	Large plans internally manage a significantly greater proportion of assets than their smaller peers. With their greater ability to identify investment opportunities in the less transparent markets, large plans also allocate more to private equity and real assets. Large plans pay significantly lower fees than their smaller peers. There is strong evidence that larger plans earn economically large and significant abnormal returns in private assets.
'What Asset Owners Did Next' Thinking Ahead Institute (2025)	10 Year performance for 26 large global asset owners.	Adopters of TPA have generated an additional 1.3%pa additional return over non-adopters. There is a link between TPA adoption and allocations to alternatives. A forward-looking estimate for addition TPA returns is 0.5% to 1.75% per annum.

For illustrative purposes only.



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Combining scale and governance – the asset ownership premium

Following from the above we estimate an additional return potential from effective scale and governance, identified as the ‘asset ownership premium’. Naturally, any such estimate is prone to assumptions and therefore highly judgemental.

Exhibit C13 gives details of a Low, Medium and High estimate for the premium, built up from evidence noted in this and the previous section. We assume a modestly sized fund (say £5 billion or less) as a reference point, with a simple passively managed portfolio at an all-in cost of 10 to 15 bps. The premium is therefore an additional potential net return (relative to this notional fund) of a portfolio running at the same level of risk but with investment and operational alpha as discussed above.

The Low estimate of 25 bps per annum essentially captures operational alpha since we assume zero added value from active management and portfolio breadth etc. A possible corroboration is the GPFG performance noted above. The 25 bps per annum return likely translates into 35 to 40 bps per annum out-performance when our reference fund costs are allowed for. The GPFG is exceptionally large however and a lower assumption seems warranted.

The High premium estimate of 125 bps per annum covers both operational and investment alpha. More assumptions are needed for this estimate. For example, it is not clear how much of the value of TPA is already covered in other items – we largely assume this to be the case. As a broad validation of this figure, research collated by the Pensions Policy Institute^{C22} notes that the premium for good governance could be as high as 2% per annum.



Exhibit C13
Estimated asset ownership premium in bps per annum

Activity	Low	Med	High	Notes
Operational alpha				
Cost savings	7.5	7.5	7.5	Following from Exhibit C5. Assume a 10x increase in size (say <=£5bn to £50bn) and a passive portfolio start point at say 10 to 15 bps all in costs.
Internalisation	6	11	17	Following from Exhibit C3 for net added value. Assume 25%, 50% and 75% internal management for Low, Medium, High respectively.
Portfolio efficiency	10	15	20	As discussed in Section D.
Investment alpha				
Portfolio breadth: higher returns (risk adjusted), diversification, alpha opportunities	0	20	40	For Low and Medium assume 0 and 100 bps private market premiums respectively, with a 20% allocation. High follows from Exhibit D2.
Active management	0	5	10	Low assumes no net added value from active management. Medium and High follow from Exhibit C3 (for net added value) with 25% and 50% active management respectively.
TPA	0	15	30	Judgemental. Assume much of the added value noted in Section D is covered by other items. Note that 50 bps is the lower end of the expected return range suggested by the Thinking Ahead Institute.
Total (rounded)	25	75	125	

For illustrative purposes only.



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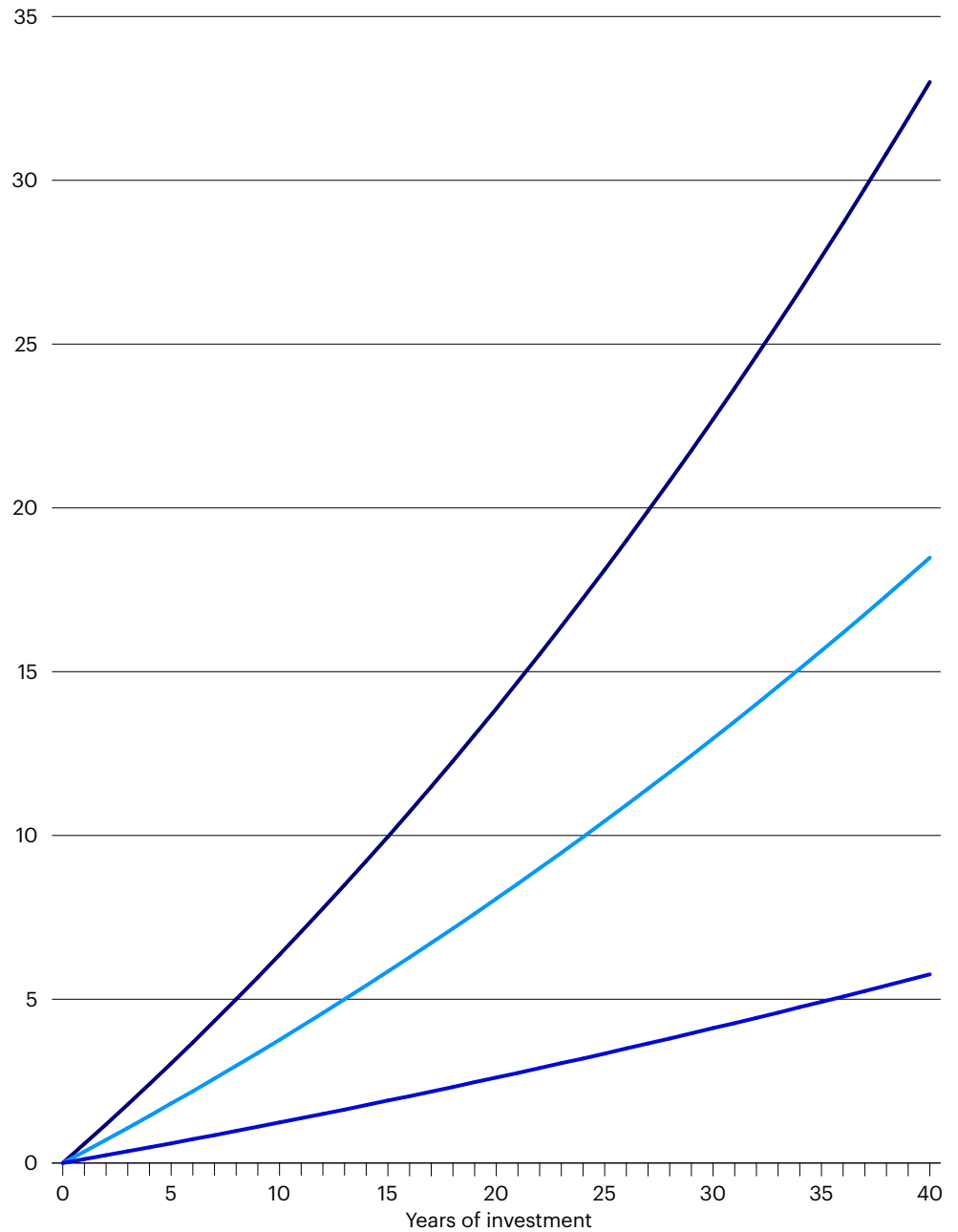
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Exhibit C14
Impact of asset ownership premium over time
(% increase in savings at end of period)



For illustrative purposes only. These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties and assumptions. **Note:** Author's calculations. Assumes 2.5% inflation, 3.5% wage growth and 6.5% per annum investment return (before asset ownership premium).

Increased retirement pots for savers

For individual savers, the additional returns translate into higher accumulated savings over time. **Exhibit C14** shows the impact of these additional returns for different time horizons. It assumes that individuals save 10% of their earnings each year and roll up accumulated fund values over different investment horizons of up to 40 years. The chart shows the percentage increase in fund values at the end of each period assuming a low, medium and high asset ownership premium.

As can be seen, savers could improve their accumulated wealth substantially depending on time horizon and assumed premium.

For example, a High premium could lead to a 35% improvement in wealth after 40 years, enhancing retirement outcomes significantly. Even a more modest improvement in outcomes is worthwhile given the millions of individuals now relying on savings in DC pension funds for retirement income. In real monetary terms, this equates to an additional pension pot of £20,000 to £100,000 over a 40-year investment horizon^{C23}.

Applying the asset ownership returns to all active DC pension scheme members could increase aggregate retirement pots after 20 years by £50 billion to £270 billion in today's terms^{C24}.



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C1.

'Scale Economies, Bargaining Power, and Investment Performance: Evidence from Pension Plans' Timmermann et al (2023), Table 7. The database used for this paper is the same as for the CEM Benchmarking paper.

C2.

'Seeking potential is a pivoting world: Capital Market Assumptions' Amundi Investment Institute (2025). Returns and volatilities for liquid markets from page 16, returns for alternative assets from page 14, and volatilities for alternative assets from the online interactive tool. Returns modelled to represent a 'beta' component rather than any added value from active management. Several organisations publish online capital markets expectations. Amundi data was used for ease of access and coverage Exhibit D2 is taken from page 19.

C3.

'Pension Fund Board Governance and Asset Allocation: Evidence from Switzerland' Bregnard, Salva (2021), Table 4.

C4.

In the limit, the sum of all portfolio positions in a given market must equate to the index, so in aggregate active returns should be in line with the market before costs, and below after costs. See 'The Arithmetic of Active Management' William F Sharpe 1990.

C5.

'Active and Passive Investing – the long run evidence' AQR (2018).

C6.

'Rethinking Diversification: Lessons from a Total Portfolio Approach' PGIM (2025), 'What is Total Portfolio Approach? A Practitioner Summary', Elkamhi, Lee (2025).

C7.

'What Asset Owners Did Next: Thinking Ahead and Future Fund Peer Group Study' TAI (2025). The paper also suggests a future return expectation for TPA of 0.5% to 1.75% per annum.

C8.

From Table 6 of the D1 reference. Based on regression analysis, which isolates the size factor from other effects. The charts are therefore an average result, with significant variation for individual asset owners.

C9.

This is an approximate estimate only based on UK data from 'Investment Management in the UK 2023-2024' The Investment Association 2024. For 2023, firms showed a profit margin of 20%, the remaining 80% has been attributed to investment functions based on staff levels in each area (Table 3 in the paper). Note that the industry has typically shown higher profitability than this, suggesting a bigger margin between internal and external costs.

C10.

Data from 'Achieving Critical Mass' The People's Pension 2025.

C11.

'2025 Investment Management Fee Study' Callan institute (2025). The smallest and largest mandate sizes are used for comparison, although the size definition varies for each mandate. Actual fees used rather than published fees.

C12.

Author estimate based on assumptions for securities lending, cash management, equitisation and dividend tax reclaim (US equities to UK investor). Other sources of added value not quantified.

C13.

'GPFG Annual Report 2025' Norges Bank Investment Management 2025. For indicative use only.

C14.

'Annual Report 2026' CPP Investments, 2026. Note that costs exclude transaction costs and performance fees. For indicative use only.

C15.

Investment Innovation Institute Article Feb 2026.

C16.

Global Asset Peer Study provided to the People's Partnership.

C17.

Dunbar's number is a suggested cognitive limit to the number of people with whom one can maintain stable social relationship. 150 was the number originally proposed by Robin Dunbar in the 1990's. The number is the subject of much debate.

C18.

For Maple 8 funds, data taken from annual reports and is either to Q4 2025 or Q1 2026. For Australian Superannuation funds see 'Performance of Super Funds in Australia: December 2025 Update' Ruthbah, Shankar Feb 2026.

C19.

See Benefits Canada article, FT article, Morningstar article.

C20.

'DC Consolidation and economies of scale: emerging evidence' The Pensions Regulator (2026).

C21.

'Assessing megafund pension reforms: Insights from international experience' The Pensions Policy Institute (2026).

C22.

'Defined Benefits: the role of governance' The Pensions Policy Institute Briefing Note 89 (2017).

C23.

Assuming initial earnings of £30,000, 10% contribution rate, base portfolio returns (before asset ownership premium) of 6.5% per annum, wage growth of 3.5% per annum and inflation of 2.5% per annum.

C24.

Assuming 16.5 million active members of UK workplace pension schemes with earnings in line with the national average, and savers are halfway through their career, i.e. 20 years to retirement on average.



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Investing for UK growth



Key takeaways

- The evidence on a UK growth or investment “puzzle” is mixed.
- There are still investment gaps that private capital could help fill.
- Turning private market intentions into economic investment is difficult.
- Recent initiatives should help.



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The UK Government sees investment in UK businesses as central to its growth agenda and is looking to pension funds for support. This section considers UK growth, economic investment and the role private markets could play.

Readers seeking additional context and supporting discussion can find an extended version of this section in **Appendix C**.

The UK productivity “puzzle” and possible investment link

UK productivity growth has slowed since the mid-2000s. Although often framed as a UK-specific “productivity puzzle”, growth has weakened across most countries, and UK performance has improved since around 2015, broadly matching the average.

The reasons for the slowdown are widely debated. One recent study highlights private and public investment, infrastructure, human capital and management quality as key drivers of UK productivity. Others point instead to productive efficiency rather than investment itself.

The UK has also experienced long-term under-investment relative to peers, with investment around 3.5% of GDP lower than other G7 economies for much of the past 35-years. There is no consensus on why this gap exists. However, national accounts exclude many intangible investments. Once adjusted, UK investment appears similar to the US and key European economies, consistent with a less physical-capital-intensive economy. UK returns on investment also appear at least as strong as peers, including and excluding intangibles, making UK investment attractive rather than a deterrent.

Even so, perceptions of UK under-investment persist. Early-stage venture capital remains low as a share of private funding. In real assets the UK Government’s ‘National Infrastructure and Construction Pipeline’ has identified investment requirements of around £770 billion over 10 years. Similarly, the Government has set a target of 1.5 million new homes by 2029.



Investing for economic growth

Converting private market ambitions into tangible UK economic benefits is not straightforward. Economic investment means building roads, factories and machinery, or investing in research, training, development, systems and processes. Portfolio investment usually means acquiring rights to future cashflows through rents, dividends or interest, often by buying existing businesses or assets. These transactions can provide liquidity and recycle capital, but they do not directly create economic growth.

Key challenges include:

- **UK versus global private markets.** Institutional investors must consider suitability across global opportunities. The UK is a small share of global private markets, so any large UK tilt needs careful assessment, particularly if it increases concentration.
- **In-the-ground investment.** To benefit the economy directly, portfolio investment must align with real economic investment.

- **Creating supply from demand.** New capital helps only if it expands investment opportunities rather than crowding out existing capital, potentially by lowering financing costs.
- **Time.** Institutional investors will take years to build meaningful private market portfolios, and economic benefits will take longer to emerge.

For the purposes of this paper, we refer to the above as **economic capital**. This includes venture capital and later stage growth / expansion capital (sometimes categorised within private equity). In addition, it includes development and added-value capital for infrastructure, real estate and other real assets i.e. capital to build new assets. We consider the impact of economic capital on GDP in Section E.



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UK private market investment is modest in a global context

Global private market assets are very large: estimates vary, but one source puts them at about £11 trillion, or 6% of global investible markets. UK private market assets are estimated to be around £1 trillion, some 10% of the global total. The UK's private market share does not appear obviously out of line given its share of global GDP and public market assets. Even so, there is a case for a larger presence given the UK's long-standing role as a global financial centre and strong record of innovation.

Whilst the UK receives a significant share of the European total (around 40% by funds raised), investment is relatively low in a global context, particularly for VC. For example, the UK's share of global fund-raising activity was 3% for VC and 10% for PE. UK Private Capital also notes that US companies raise approximately twice as much as UK companies on average across the different VC funding rounds.

One perceived gap in VC funding is limited later stage growth / expansion capital. For example, UK Private Capital notes a larger gap in funding (US vs. UK companies) for later stage capital versus earlier stage financing. A consequence is that a high and increasing proportion of capital is raised from overseas investors, with the concern that assets, employees and intellectual property are transferred abroad.

However, there is not universal agreement on the existence of a VC funding gap, with VenCap pushing back on this idea, citing the UK as the third largest global market for VC globally after the US and China with a proportion of investments in line with its GDP. VenCap believes the problem lies not in a funding gap but around exits.

For infrastructure, the ONS estimates UK private sector investment at £15 billion to £20 billion a year. Around £345 billion of private capital may be needed alongside public funding for the National Infrastructure and Construction Pipeline, implying an additional £15 billion to £20 billion annually, roughly double current levels.



Initiatives to support UK private market investment are underway

Recent initiatives aim to improve UK private market access and investment:

- PISCES, established in 2025, allows trading of private company shares, potentially improving private equity access and exits. Early operators include the London Stock Exchange.
- The British Growth Partnership, launched by the British Business Bank in 2024, is a pooled vehicle co-investing with BBB fund managers in UK venture capital and growth equity. The Bank also shares open third-party private fund opportunities through Venture Link.
- The National Wealth Fund, launched in 2024 with £7 billion of capital, aims to catalyse institutional co-investment into strategic UK sectors such as clean energy, transport, advanced manufacturing and digital infrastructure.



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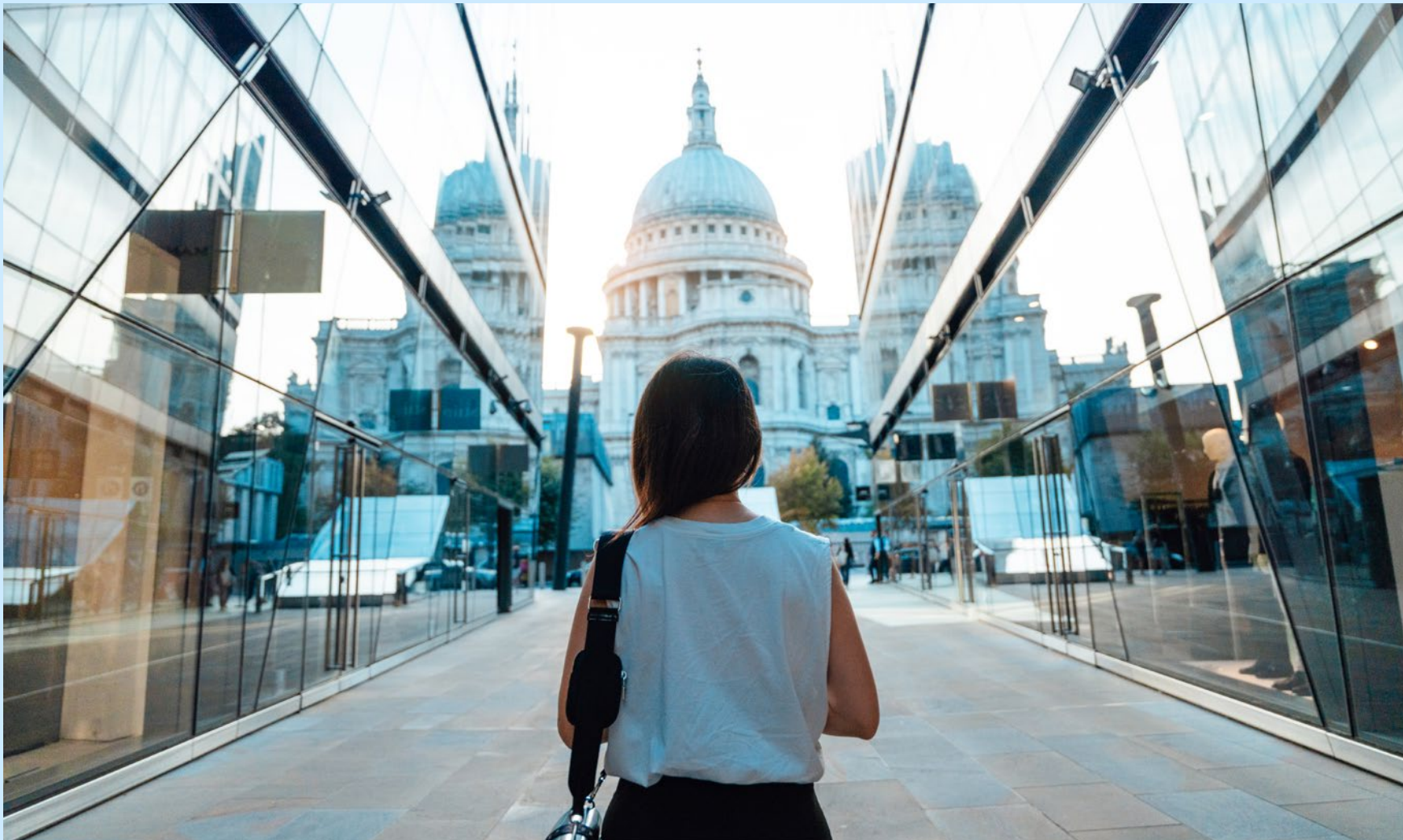
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The asset ownership dividend



Key takeaways

- An additional £30–90 billion could be invested in UK private markets.
- GDP could be around 2–3% higher over a 20-year horizon, equivalent to approximately £75–110 billion per year.
- There could be a wider range of benefits to the UK economy and beyond.



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In this section we consider the value of asset ownership to the wider UK economy. In line with the Government’s growth agenda, we consider the economic impact of a significant take-up in private market investments by UK DC schemes^{E1}.



Channelling capital into the UK economy

Given the Government’s aim of encouraging greater investment into the UK economy, we estimate the potential size of flows from the UK pensions sector. We focus on DC pension schemes as the main source of funding, but note some potential for flows from the DB sector:

- Private sector DB schemes still form the largest share of pension assets. Whilst the average allocation to alternative assets (mostly private markets) is around 13%, the figure is skewed by the much higher allocation of the largest funds – at around 24%^{E2}. Several conditions are likely needed to sustain or increase the level of private investments: consolidation (likely into Super funds); sufficient schemes deciding to stay in run-on mode with reasonable allocations to ‘growth’ assets; and / or a re-appraisal of target private market allocations within growth assets;
- The public sector LGPS schemes already allocate around 25% to private markets, and so some upward increase in target private market allocations is needed to have an impact. The ability to tolerate illiquidity will depend on scheme maturity.

Current workplace DC pension assets are around £600 billion, split £250 billion and £350 billion between Master Trusts and contract-based schemes. Current investment in private markets is around 3%. Consolidation will help funds build the scale to invest in private markets more cost effectively. For example, a £25 billion fund could invest £6 billion in private assets (25% allocation). This is sufficient for a reasonably diversified investment across LP funds and / or co-investments, possibly some direct deals as well. Costs may need to be somewhat higher than currently. For example, overall costs (excluding performance fees) for Maple 8 funds are around 60 bps. This may not be comparable to the UK since the Maple 8 are mega sized, but on the other hand invest more in private markets (~50%) than seems likely in the UK.

Exhibit E1 (next page) estimates potential flows into private market assets, UK private markets and UK private market economic investments. It assumes take-up by all DC asset owners (which is likely optimistic).



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Exhibit E1
Estimated channel of private market capital from UK DC pension funds (£bn)

Consideration	£bn	Low Est.	High Est.	Notes
Current Value of Workplace DC assets ¹	600			
Current alternative investments ¹	20			
Value projected to 2030 ²	900			Current value increased for trust-based schemes based on DWP paper. Nominal value.
Default Fund assets ³	640			Around 75% and 65% of assets invested in default option for trust and contract-based schemes respectively.
Private market assets (£bn)		80	170	Assume 15% to 30% of default fund assets. Additional assets outside of default funds not included.
UK private market assets (£bn)		30–40	45–90	Assume 25% and 50% private market assets for Low and High, with a minimum of 5% of default fund assets as per the Mansion House (assume applies to all schemes)
UK private market economic capital (£bn)		10–20	10–45	Assume 25% and 50% of UK private markets assets for Low and High ⁴

Note: For illustrative purposes only. Figures are rounded.

1. ‘Pension scheme assets – how is asset allocation changing and why?’ Pensions Policy Institute PPI (2025). Adjusted to exclude hybrid schemes.

2. ‘Trends in the Defined Contribution trust-based pensions market’ DWP (2023).

3. ‘DC Future Book 2025’ PPI (2025).

4. Proportion of total private equity fund raising that is venture capital and growth/expansion capital. Assume the same proportion for development and added-value capital within real estate, infrastructure and other real assets. For the UK this has been around 27%, with global fund raising around 43%. Data from Pitchbook.

As can be seen, there is a wide range of possible outcomes as assumptions compound. Taken at face value however, the analysis suggests a range of **£30 to £90 billion** could flow to UK private assets (assuming implementation by 2030), with some **£10 to £45 billion** channelled to economic capital^{E3}. We comment on the main assumptions below:

- Private market allocation:** 15% to 30% of scheme assets. As noted earlier in the paper, there are several reference points for this. Whilst the UK government looks to the Maple 8’s near 50% private market allocations, DC funds have greater cost and liquidity constraints. The Australian Supers are likely a better reference point with around a 25% allocation. The Mansion House Accord commits signatories to (the ambition of) at least a 10% allocation.
- UK Private market allocations:** 25% to 50% of total private. Broadly speaking UK private markets are 5 to 10% of the global total. However, most institutional investors exhibit home bias, in part for reasons such as liability matching or currency risk. In private markets there are also practical issues such as access and familiarity. Data from the DWPE^{E4} notes overall UK allocations of 20% and 30% for DC and LGPS schemes. This allocation varies by asset class and is higher for private markets, however. The paper notes several UK and international examples, with domestic allocation generally in a range of 20 to 55%^{E5}.
- UK economic capital allocations:** 25% to 50% of UK private market assets. This represents the share of private-market fundraising attributable to venture and growth/expansion capital and development/value-added capital in real estate, infrastructure and other real assets. The lower figure represents recent UK averages and the higher figure for global averages^{E6}, with some rounding up.

The estimate of £30 to £90 billion for total UK investment is broadly consistent with the government’s expectations from the Mansion House Accord but applied to a wider asset base^{E7}. It may also be optimistic to assume that all DC schemes follow this path; there are many factors to consider when deciding on appropriate allocations. It will also take some time to build up exposures. For example, experience from Canada suggests it takes 10 to 15 years to build up an *additional* 20% of private investments, although this includes development of internal capabilities (see Canada Model Box).



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Direct impact on the UK economy

Other things being equal, economic investment should flow through to the real economy in measures such as GDP and employment. The impact on GDP should also be more than 1:1 since investment spending leads to higher incomes, which increase spending, and so on. Increased productive capacity should also add to GDP. This multiplier effect is hard to pin down. Most studies focus on government investment and suggest a multiplier of between 1 and 2 over several years^{E8}. A recent IMF paper covering 72 countries calculates a multiplier (from government investment) to be 1.3 over 3 years.

The above direct benefits may understate the total value to the UK economy:

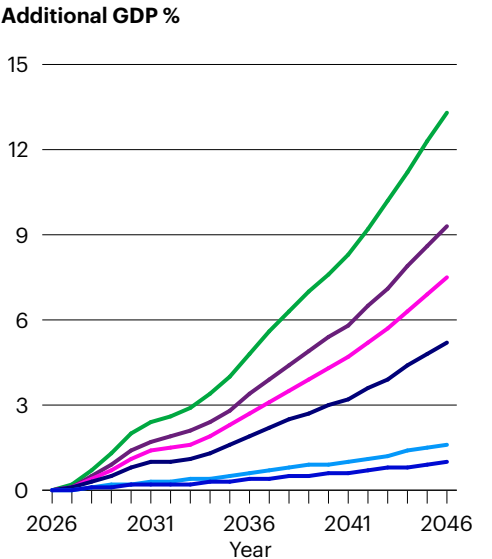
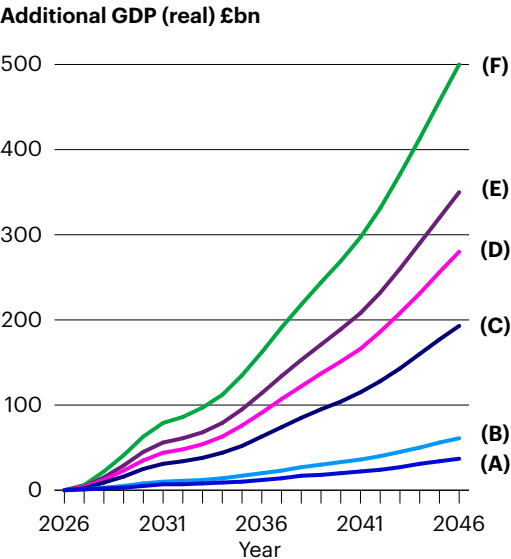
- The multiplier effect might be understated. Private (as opposed to government) capital channelled into early-stage innovative firms with high-growth potential might have a greater impact than indicated by the 1.3 multiplier. The Bank of England’s Productive Finance group outlined how “less liquid investment strategies often target newer industries or innovative business models, which are likely to play an important role in the growth of the economy more generally”. Separately, a paper by S&P estimated a multiplier of 1.9x for infrastructure investment^{E9}.
- Additional funding for later-stage businesses or to buy operational assets (£20–45 billion from the above) provides liquidity for earlier stage investors (i.e. an exit strategy). This should encourage further direct (economic) investment from both UK and overseas investors. Realised gains for early-stage investors could also impact the economy directly through higher spending, which creates more employment, etc. More generally, capital market deepening helps to improve liquidity, capital market efficiency and valuations, which in turn lowers the cost of capital for firms.

We estimate the impact on UK GDP over 20 years assuming UK economic capital as discussed above, i.e. £10 billion to £45 billion, with a ramp-up to target investment by 2030. As noted elsewhere in this paper, building up significant allocations to private markets takes time, and 2030 appears optimistic. However, the projection is not sensitive to this assumption. We also allow for reinvestment as private assets distribute capital (assumed over 5 to 10 years after initial investment). As total DC assets grow significantly (with investment returns and contributions), reinvestment becomes the dominant effect. Finally, to assess the impact on GDP, we assume a low and high investment multiplier of 1.25 and 1.75 respectively. There are numerous uncertainties and assumptions in this analysis^{E10}.

Exhibit E2 shows the resulting increase in real GDP in monetary and percentage terms, in all cases relative to a baseline where private investment remains at 3% of projected assets. As can be seen, the medium scenarios generate an additional 2.2% to 3.2% in GDP over 20 years. In real monetary terms, this is £1.6 to £2.3 trillion in aggregate, or £75 to £110 billion per annum which (for context) is similar in economic size to the UK construction industry^{E11}. There is a wide range around this, depending on private market allocation, the allocation to UK assets and the percentage channelled to economic capital. Overall, Scenarios 5 and 6 appear optimistic, with low to medium scenarios more plausible.

Exhibit E2
Potential GDP impact from UK private market investments over 20 years

■ Scenario 1 (A) ■ Scenario 4 (D)
■ Scenario 2 (B) ■ Scenario 5 (E)
■ Scenario 3 (C) ■ Scenario 6 (F)



Scenario	1	2	3	4	5	6
Investment ¹	Low	Low	Med	Med	High	High
Economic multiplier ²	Low	High	Low	High	Low	High
GDP uplift over 20 yrs. (%) ³	0.4	0.7	2.2	3.2	4.0	5.7
GDP uplift over 20 yrs. (£bn) (real)	300	500	1,600	2,300	2,900	4,100
GDP uplift per annum (£bn) (real)	15	25	75	110	135	195
Real growth (%) (cf. 1% baseline)	1.1	1.1	1.3	1.4	1.5	1.6

Note: Author’s calculations. For illustrative purposes only.

1. Low: 15% Private allocation, 25% UK, 25% UK Growth. Medium: 25% private allocation, 50% UK, 35% UK growth. High: 30% Private allocation, 50% UK, 50% UK Growth.

2. Low: 1.25. High: 1.75.

3. Approximately the same figure for aggregate GDP over 20 years and the average uplift for each year individually. As can be seen from the charts the benefits are back-end loaded.



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Exhibit E3

The benefits of economic investment: summary of papers

Paper	Data	Conclusions
‘The scale of it: The added value of independent and scaled UK pension funds for the economy, members and society’ WPI Economics (2025)	Review of evidence and economic modelling	There are wide ranging benefits from the activity and investment of large UK pension funds. These include reduced costs for businesses, additional economic activity (gross value add) and employment, greater firm productivity and benefits to wider society, e.g. through housing and infrastructure investment.
‘Super and the Australian Economy’ ASFA (2024)	Various funds and economic data for Australia	Super contributions increase the level of national savings, which should lower the cost of capital and stimulate higher domestic investment. In turn, higher investment should boost the quantity and quality of capital stock, and therefore GDP and productivity. The additional capital can support building Australian infrastructure and provide capital for energy transition.
‘The Impact and Opportunity of Superannuation on Australia’s Productivity’ ASFA (2025)	Various funds and economic data for Australia	Australia’s superannuation system is a key source of capital for the domestic economy. It has supported higher levels of capital investment in Australia than otherwise – reflected in a higher level of productivity and living standards. It estimates that GDP is about 2% higher than it would have been in the absence of the Super system, with a similar rise in productivity, real wages and therefore standard of living.
‘Superannuation within a Financial CGE Model of the Australian Economy’ Giesecke et al (2015)	Model calibrated with economic and financial data for Australia over 2012–13	A 1 percent increase in the Super contribution rate (and the associated increase in national saving) increases the level of real GDP by around 0.2 percentage points in the medium term. The main mechanism underpinning the rise in GDP is higher levels of fixed capital investment by firms.
‘Economic Benefits of Canadian Public Sector Pension Plans’ Smetanin, Stiff (2021)	Various economic data for Canada	Addresses economic benefits of pension income and employee wage spending rather than investment directly. It notes an increase in GDP (with a multiplier of 1.7), business investment, employment and government revenue.
‘Do Pension Fund Investments Make a Difference? Effects on Firm Productivity’ Beetsma et al. (2022)	Danish pension fund and firm (private and listed) data 2003 to 2019	Finds that pension fund investments have a positive and economically meaningful effect on firm productivity (increasing it by 3 to 5%), more so when funds hold a larger stake and for longer periods. The ability of pension fund to provide stable capital and allow firms to undertake longer term investment is suggested as a reason.
‘Uncertainty and Public Investment Multipliers’ Gbohoui (2021)	Economic data for 72 countries 1996 to 2019	Public investment has positive effect on GDP (multiplier of 1.3* on average), employment (2.2*), private investment and confidence. The effects are more pronounced when investment is made at a time of economic uncertainty, largely due to a boost in economic confidence and therefore spending. * for advanced economies over three years post investment.
‘Public investment fiscal multipliers: An empirical assessment for European Countries’ Deleidi et al. (2019)	Economic data for 11 Euro-area countries 1970 to 2016	Three models are used to assess the impact of government investment on economic activity. They suggest a multiplier of around 2 after 5 years.

For illustrative purposes only.

Several other benefits of economic investment have been proposed, although many are hard to quantify:

- Additional Employment.** Various studies point to a positive impact on employment. For example, applying the employment multiplier noted in the IMF paper^{E8} suggests 80,000 to 350,000 new jobs resulting from the £10 billion to £45 billion investment noted earlier.
- Filling gaps in capital provision.** A Government paper^{E4} highlights several areas where funding gaps could be filled. For example, it notes that “domestic risk capital for unlisted start-up companies in the UK remains a challenge, particularly at later stage funding rounds”. It also notes potential for regional support, with capital provided by pension funds developing regional business ecosystems. Similarly, real-estate investment could help with some supply-constrained areas of the UK, as well as help to crowd in other forms of investment and spending (e.g. construction);
- ESG and impact investing.** Pension funds are highly influential on corporate ESG practices through engagement and investment ownership. Impact investing is a more direct way to channel capital into projects aligned to ESG policies. This is particularly the case for climate change, where new capital can support the build-out of the renewable energy ecosystem directly;
- Improved productivity.** A study of Danish firms found investments by pension funds raised firms’ productivity, especially where investments were long-term and large^{E12}. Various benefits included: active engagement with the firm; increasing the supply and reducing the cost of financing; and providing long-term financing security;
- Governance.** In a similar vein, the UK Government report suggested that direct investment may help improve governance due to engagement and accountability. This can lead to better management practices, transparency, performance, and resource allocation;
- Social projects.** Large pension funds also invest significant amounts in projects within the UK that not only provide investment returns for members but also benefit people and communities. A report by WPI Economics^{E13} noted that in 2022 UK investment managers channelled nearly £10 billion into social projects such as new schools and improved hospital buildings, and that commercial investments are also often accompanied by efforts to deliver urban regeneration and affordable housing;
- Member engagement.** A study by Nest^{E14} found that among savers who care about ESG issues, communications around responsible investment have the potential to increase engagement, prompt action, and build trust in pension providers. Overall, scheme members showed a preference towards communications that focus on investments that proactively do good, emphasise collective impact, include specific examples and highlight local rather than global impact.

Exhibit E3 summarises some key papers exploring the economic and wider benefits of new capital investment. As can be seen there is general association between investment and economic output, employment and other benefits. Most studies that suggest economic multipliers focus on public investment, however.



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E1.

Assuming that private markets are included in professionally managed multi-asset default funds, as opposed to single asset class self-select funds. There is currently a heated debate in the US over allowing individuals to select private market funds in 401(k) plans.

E2.

See [PPI Pension Scheme Assets 2025](#) and [WPI The Scale of it](#).

E3.

As discussed in Section D, we see private economic capital as most directly linked to ‘investment’ in the economic sense. Specifically, economic capital is venture-capital/late-stage expansion capital in private equity, and development/added-value capital in infrastructure and real estate, i.e. capital to build things, not just operate them. There are of course benefits from investing privately in established businesses/assets, for example as a form of liquidity provision.

E4.

‘Pension fund investment and the UK economy’ Department for Work and Pensions (2024).

E5.

Paragraphs 43 and 44 from reference E4, there is one exception to the range, with unlisted equity exposure in New Zealand being 87% domestic.

E6.

‘Global Private Market Fundraising Report’ Pitchbook (2025). Proportion of total private equity fund raising that is venture capital and growth/ expansion capital (around 15% of private equity). Assume the same proportion for development and added-value capital within real estate, infrastructure and other real assets. For the UK this has been around 27%, with global fund raising around 43%.

E7.

The Government expected at least £25 billion to flow to UK businesses from £250 billion of signatory assets. So $25 \times 640 / 250 = £64$ billion.

E8.

IMF Working papers ‘A Simple Method to Compute Fiscal Multipliers’, Batini and al (2014) ‘Uncertainty and Public Investment Multipliers’ Gbohoui (2021).

E9.

‘S&P Credit Week’ Jan 2015.

E10.

Assumes all current active members of workplace pensions contribute 10% of earnings. National average earnings assumed (–£36,000). Other assumptions: investment returns of 6.5% for public assets and 8.5% for private assets, inflation of 2.5% and real earnings and GDP growth of 1% per annum. Economic benefits assumed to emerge over three years post investment. Private assets are assumed to return capital uniformly over 5 to 10 years post initial investment.

E11.

UK construction sector gross value-add of £148 billion in 2023. Source: [ONS](#).

E12.

‘Do Pension Fund Investments Make a Difference? Effects on Firm Productivity’ Beetsma et al (2022).

E13.

WPI The Scale of it.

E14.

Nest Engagement Research.



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Exploring asset ownership: A framework



Key takeaways

- Four asset ownership models aiming to capture the full range of investor activities.
- Added value may come from asset ownership and portfolio sophistication.
- Resources and governance could increase significantly with higher levels of ownership.
- A partnership alternative may help.



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In this section we propose four main asset ownership models. We also discuss a variation which emphasises ‘partnership’. We provide a detailed breakdown of investment and operational functions for each model. This includes internalisation of various elements of investment decision-making, with a variant drawing more on external partners. The models may help investors to benchmark their own versions of asset ownership.

There are several well-known global asset ownership models

By way of introduction, we briefly describe several well-known models that are often discussed in the media.

Outsourced Models

UK pension schemes are leading examples of outsourcing. Boards have relied heavily on consultants to propose investment strategy, fund managers and their benchmarks. Over the years, increasing complexity has led to more directed advice and then to delegated solutions in the form of the out-sourced CIO (OCIO) model^{F1}.

Under an OCIO arrangement, the Board is typically responsible for high level objectives (funding level goals, risk tolerance), with most other aspects of investment management delegated to a fiduciary OCIO manager^{F2}.

The Canada Model

The Canada Model is often seen as the poster child for scale and internal investing. Typified by the ‘Maple 8’ pension funds, large in-house teams manage public market assets and invest directly in private assets such as infrastructure, real estate, and private equity. See ‘Canada Model’ Box in the Introduction for more details.

The Norway Model

Exemplified by the Norwegian sovereign wealth fund GPF, the model is widely viewed as a benchmark for transparency, simplicity, and strong public accountability. Given its huge size, the fund is mostly internally managed. Despite its size, and potentially longer-term outlook, the portfolio is invested primarily in liquid public equities and bonds (both non-domestic), mostly via passive-like strategies. The fund publishes extensive disclosures on holdings, performance, risk, and voting records.

The Yale/Endowment Model

The model focuses on long-term, diversified investing with a heavy allocation (typically >50%) to private and alternative assets, aiming to maximise returns rather than track traditional benchmarks.

Rather than building large internal teams, investment execution is delegated to a select group of specialised external managers. Asset owners form long-term partnerships and gain access to top-tier managers that are often closed to new investors. The focus of governance is therefore on asset allocation, manager selection, and relationship management rather than direct investing.

Sovereign Models

There are two broad objectives of sovereign wealth funds (SWFs): wealth preservation and domestic development.

Norway’s GPF is a good example of wealth preservation, with a simple low-cost approach and assets held entirely outside of home base^{F3}. In contrast, some SWFs also have a mandate to develop the domestic economy, often with large-scale direct investments and an aim to diversify future sources of national income. The PIF (Saudi Arabia) is a good example.

Strong, clear linkages between mission, governance, management, and results are the hallmarks of excellence in pension fund management.

Keith Ambachtsheer
‘Managing Public Pension Funds’, 2011



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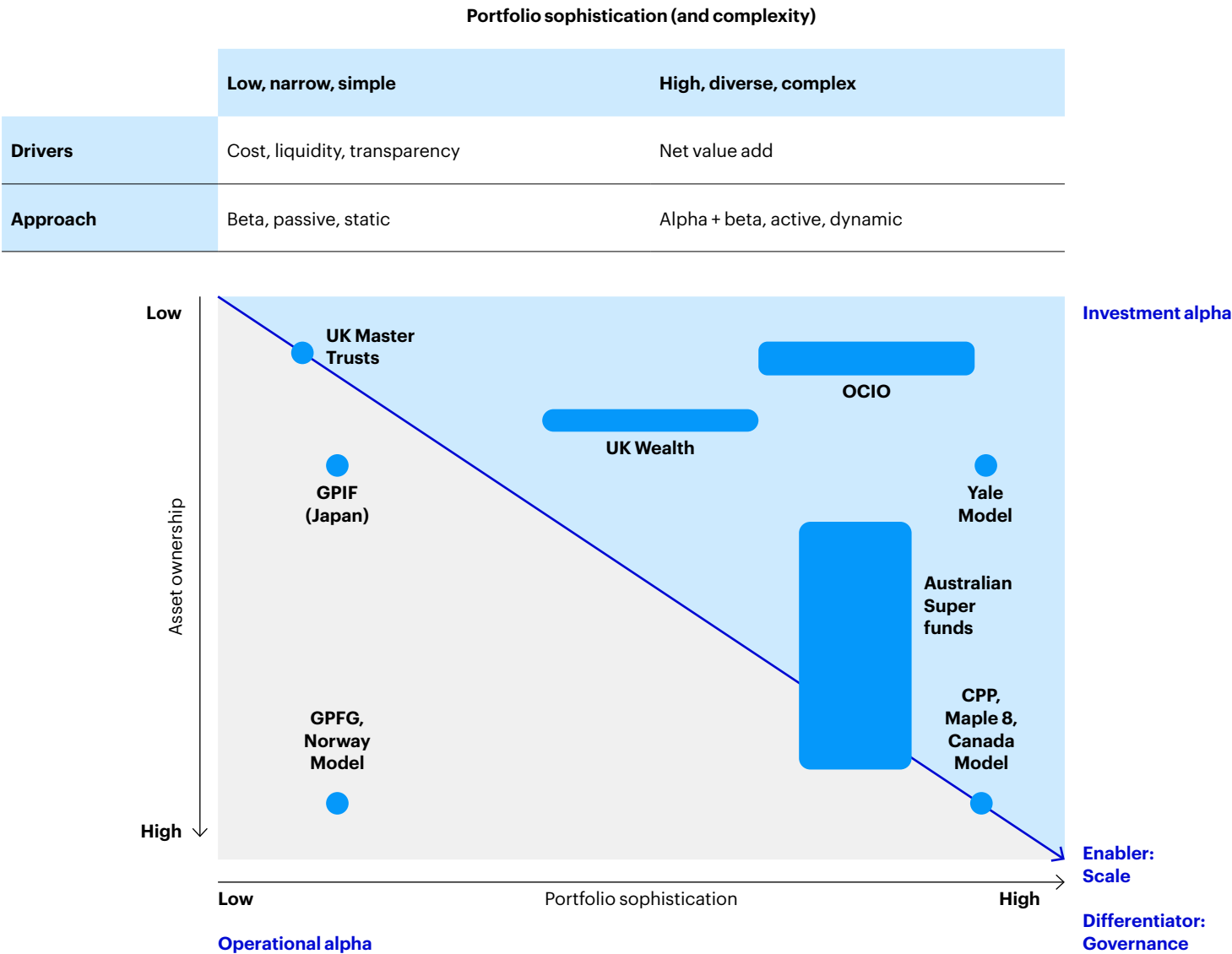
Asset ownership and portfolio sophistication – a framework

The above examples are not exhaustive but highlight the wide range of approaches taken. As well as differing levels of asset ownership, portfolio sophistication (and complexity) varies widely. Whilst Canada’s mega-sized Maple 8 funds employ highly sophisticated portfolios, one of world’s largest asset owners (GPFG) takes a simpler approach to portfolio-building. Likewise, the Yale model invests heavily in sophisticated alternative assets but focuses internal resources on manager selection.

To make this distinction **Exhibit F1** illustrates separate ‘dimensions’ of asset ownership and portfolio sophistication, including some example funds and models^{F4}. Asset owners with simpler portfolios are typically focused on costs, liquidity and transparency. In contrast, funds with more sophisticated portfolios are likely to focus on net returns.

To add value, investors can either: increase asset ownership, increase portfolio sophistication, or both (as per the Maple 8). Following from Section C, we associate asset ownership more with operational alpha and risk management, and portfolio sophistication with investment alpha. Not surprisingly, scale and governance are critical enablers when moving down or to the right, but especially both.

Exhibit F1
Asset ownership and portfolio sophistication. Added value from operational alpha and investment alpha



For illustrative purposes only.



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Four asset ownership models

To dig deeper, we characterise asset ownership in four broad groups^{F5}:

- **L1: Outsourced / delegated** – Minimal internal resource. Relies on consultant or delegated fiduciary.
- **L2: Advisor / Allocator** – Internal resource focused on strategic allocation and selection and management of external managers and specialist service providers.
- **L3: Allocator / Investor** – Internal resource focused on selection, management of external managers and contributing further in some investment decision making activities through the portfolios (e.g. sub-strategy blend and allocations, strategy and index design, stock selection). A variant makes extensive use of external partnership managers and specialists.
- **L4: Investment Enterprise** – Significant internal resource across all aspects of portfolio management.

Exhibit F2 describes the models and details typical activities undertaken externally and internally. Further details are given in the Appendix, where decision-making, investment management (public and private assets) and operational functions are set out for each model. Of course, any given asset owner may not fit exactly into these categorisations, instead operating a mix of the models, depending on specific activity.

Exhibit F2 (continues overleaf)
Asset Ownership Models – description

Model	Description	Organisation structure (high level)	Skills	Typical staff [% assets internally managed] ²	Typical AuM (£bn) ²
L1: Outsourced / delegated	Small internal resource. Relies on consultant or delegated fiduciary.	Board, external advisory. SAA framework.	Interpretation of third-party advice, oversight, reporting.	<5 [0%]	<10
L2: Adviser / Allocator	Internal resource focused on selection and management of multiple external managers and SAA advice.	Board, Internal Advisory. SAA framework.	As above + manager selection and operational asset management (if segregated). SAA / limited AA.	5 to 75 [0%]	10 to 50
L3a: Partnership Allocator Investor	Asset allocation advice delivered internally. Investment management activities delivered through Internal-External partnership with internal team owning higher value-adding elements but dealing and order management remains external. Implementation varies across asset classes (e.g. co-investments).	Board (high level issues), Int / Ext partnership delegated. SAA or TPA framework ¹ .	As above + more extensive asset allocation, investment evaluation. Operational asset management. Comprehensive risk and exposure management.	20 to 75 [0%]	25 to 50
L3: Allocator / Investor	Internal resource focused on selection and management of external managers and some internal stock selection (e.g. domestic equities and bonds).	Board (high level issues), Internal delegated. SAA or TPA framework ¹ .	As above + some stock selection and execution.	75 to 500 [20% to 70%]	25 to 50
L4: Investment Enterprise	Significant internal resource across all aspects of portfolio management.	Board (high level issues), Internal delegated. SAA or TPA framework ¹ .	Comprehensive skills in asset allocation, investment evaluation and execution, operational asset management and risk / exposure management.	500 to 1000+ [>70%]	>50

For illustrative purposes only.

1. Depends on portfolio complexity. A simpler portfolio (for example due to costs or beliefs) may not use a TPA approach even though the AO is large and resources are fully internalised.
2. Higher end for more complex portfolio and with segregated assets.



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We comment on the different models below.

L1: Outsourced / delegated

As can be seen, most activities are carried out by external parties. With the help of an advisor, the Board sets return objectives, risk tolerance, and a strategic asset allocation (SAA). Day-to-day management is then delegated to a series of fund managers, typically in a series of passive or specialist active mandates, each with a benchmark and tracking error tolerance. There is little variation around the SAA. Most decisions are either made with external advice or delegated under an OCIO arrangement. Assets are typically held in external pooled funds.

L2: Advisor / Allocator

Under this model the in-house team takes on direct responsibility in key strategic / structural areas.

Policy-setting and asset allocation are as per L1, but with the internal team taking the advisory role to the Board. As well as high-level SAA, the internal team is also responsible for portfolio construction, including strategy and sub-strategy allocations and the use of active, passive and systematic strategies. Asset allocation may vary dynamically from the SAA, but with modest and relatively infrequent variation, for example when markets appear to be at extreme levels. The internal team may undertake some risk management, for example currency hedging using an overlay manager.

Manager selection is brought in-house. Whilst responsibility for security evaluation and selection remains with external managers, the internal team has more control over mandates and may take ownership of systematic strategies^{F6}. For alternative and private markets (if held), selection is at the fund level (as opposed to fund-of-funds)^{F7}.

Operational governance increases if segregated accounts are used, and adds a range of specialist providers (custodian, administrator etc.), tools and systems to be managed. Segregated accounts allow asset owners to engage in the efficient portfolio management techniques discussed in Section C.

Exhibit F2 (continued)
Asset Ownership Models – Split of activities, high level (E = External, I = Internal , P = Partnership)

Model	Investment objectives / policy	Dynamic / Flexible asset allocation	Manager evaluation	Security evaluation and selection	Risk monitoring and exposure management	Direct asset control (segregated assets)	Trade execution and settlement
L1: Outsourced / delegated	I SAA	E None / limited	E	E	E	E	E
L2: Advisor / Allocator	I SAA	I Limited	I	E	I or E ³	I or E ³	E
L3a: Partnership Allocator / Investor	I SAA / TPA ¹	P Limited/DAA/TPA ¹	I	P	P [I]	I	P ⁴
L3: Allocator / Investor	I SAA / TPA ¹	I Limited/DAA/TPA ¹	I	I and E	I	I	I and E
L4: Investment Enterprise	I SAA / TPA ¹	I Limited/DAA/TPA ¹	I Limited ²	I	I	I	I

For illustrative purposes only.
1. Depends on portfolio complexity. A simpler portfolio (for example due to costs or beliefs) may not use a TPA approach even though the AO is large and resources are fully internalised. TPA also blurs the lines between the traditional separation of strategic and dynamic asset allocation. 2. Since most activities in-house. 3. Depends on whether pooled funds used. 4. Specialist index calculator and managers, as selected and managed by in-house team.

L3: Allocator / Investor

Level 3 ownership involves a significant step into ‘asset management’ for the internal team. With the Board focusing on higher level objectives, principles and oversight, day-to-day decisions are delegated via an internal CIO function. The internal team therefore takes most decisions around real-time portfolio and risk management.

An important consideration is whether to move from a traditional ‘SAA+ Implementation’ framework to a more holistic TPA approach. Either way, asset allocation may become more flexible and dynamic, for example via a medium-term dynamic-strategic allocation process.

A directly held (segregated) portfolio allows asset owners to employ a range of efficient portfolio management techniques. Risk and exposure management also become more comprehensive. For example, the level of interest rate exposure can be controlled through interest rate duration and yield curve positioning with physical assets and / or via an overlay.

The partnership version (L3a) of this model makes extensive use of external ‘partnership’ managers and specialist providers. Asset owners retain control of most of the added-value activities without the additional infrastructure and complexity of detailed security evaluation and trade execution. The motivation is to focus on activities that add significant value whilst reducing costs but still retaining a ‘light and nimble’ organisation. It could be characterised as “own the portfolio, orchestrate the ecosystem” rather than “fully build the ecosystem”. In general, the model uses fewer broader mandates than with specialist management. Whilst security selection is delegated, asset owners retain significant control through granular custom mandates, for example in regional allocations or more niche market segments. Co-investments allow low-cost access to private markets (If used), which rely on partnership managers to source and evaluate opportunities^{F8}. **We elaborate on the partnership version of the model in Section G.**

The alternative is to develop in-house capabilities in security selection, typically (or initially) in domestic listed equities and bonds. This involves a significant step-up operationally due to trade execution and settlement; so-called middle office functions. Many of the Australian Superannuation funds follow this model, often as a progression to L4.

L4: Investment Enterprise

Under this model most activities are internally managed, with sophisticated portfolio and risk management employed across the board. This includes security selection across most assets, although some external management may be used in specialised areas. A significant proportion of any private market allocations would come from direct deals and co-investments.



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CASE STUDY

Aware Super: Evolving asset ownership and portfolio sophistication

Over the past decade, Aware Super has evolved into a broad and sophisticated investment organisation with around \$240 billion AUD in assets. From an externally managed model, it now has internal capabilities across most asset classes. Staffing has grown from around 10 to 160, with most asset classes managed through a mix of internal teams and external managers. Asset allocation has also shifted significantly, most notably through the rise of private market investments which are now at a strategic weight of 25%.

Governance has shifted to a largely delegated model, with the trustee body now focused more on oversight than approval. It retains responsibility for major policy settings, new internal capabilities and broad portfolio guidelines, including approval of the strategic asset allocation. Thresholds for individual transactions have risen significantly, so only a small number of deals now require board sign-off. As portfolios become more complex, robust reporting frameworks are increasingly important to support effective oversight.

Private market implementation

In private equity, the fund has adopted a ~50/50 mix of funds and co-investments. This reflects confidence in underwriting, but limited appetite to originate and evaluate deals directly. Deal sourcing is especially challenging given the fund's Australian base and the relationship-led nature of the asset class, so GP relationships remain essential. The strategy has historically focused on newer middle-market managers to access less crowded opportunities and preferential deal flow, though increasing fund size may create capacity constraints and eventually require the model to evolve. Co-investment is executed in-house on a deal-by-deal basis.

In infrastructure, the preference has generally been for direct ownership while remaining pragmatic about external relationships. In real estate, the model combines directly owned assets, assets held through an intermediate property company and selected external manager or partner structures. Infrastructure is seen as more challenging because deal-specific factors, operating risk and pipeline quality matter greatly, while real estate is viewed as more amenable to top-down portfolio construction, with each sector behaving more homogeneously, at least historically. The fund sees scale as more beneficial in infrastructure and some real assets than in private equity.

Total portfolio approach (TPA)

The fund is in the early stages of interpreting TPA for its own context. Recent changes are intended to improve consistency in how scarce liquidity, fee budget and active risk are allocated across the portfolio, including through a more integrated view of private markets and a clearer distinction between risk premia and idiosyncratic alpha.

But the model stops short of forcing all teams into a single top-down capital allocation process. Instead, it aims to preserve bottom-up specialist judgement within asset classes, while using common assumptions, shared language and better comparability across teams to support more coherent portfolio-level decisions.

Manager Partnerships

Aware Super sees potential in working more strategically with external managers but is approaching the idea cautiously and incrementally. The starting point is to make better use of existing relationships through softer benefits such as training, research and broader engagement. At the same time, there is a strong desire to preserve independence and flexibility. Long-term relationships are especially important in private equity though, not just for co-investments but a broader partnership as well. The most valuable relationships appear to be those built over time through repeated support, trust and mutual confidence.

Challenges and future direction

Aware Super sees hiring and retaining high-quality staff as one of the biggest challenges. It operates a single pay framework across a diverse set of roles with very different external market norms. The fund recognises that it may not always be able to match the most competitive market pay, especially for specialist or high-upside investment roles. It aims to compete through a broader employee value proposition based on material reward, belonging, purpose and development.

Another challenge is cultural: how to grow both bigger and more global without losing the sense of purpose, cohesion and identity that the fund sees as central to its success. Aware Super recently opened a London office, initially to enhance private market capabilities, but further overseas expansion is likely.

A further challenge is moving from strong governance to a truly mature investment process that is scalable, repeatable and transparent. Written policies and guidelines are necessary but not sufficient; the harder task is to define more clearly how decisions are made, how risks are managed, and how ways of working are embedded across teams rather than residing in individuals.

Future development is therefore likely to focus on codifying the fund's investment philosophy, methods, workflows and reporting. This helps to improve internal transparency, build stakeholder confidence, reduce key-person risk and make the organisation easier to scale. It would also provide a stronger foundation for technology and AI, which are seen not as ends in themselves but as tools to improve efficiency, consistency and investment effectiveness.

In addition, the organisation is moving from a 'build' phase, focused on establishing exposures and capabilities, into an optimisation phase focused on where fees, liquidity and risk budgets, and internal resources can be deployed most effectively.

Growing comes with the risk of losing the cohesion that we think is part of our identity – the cohesion and the resonance with our organisation's purpose.

Simon Warner
CIO, Aware Super



Asset ownership is on the up

There is a long-term trend of increasing asset ownership. For example, the development of the Canadian model is well documented with roots dating back to the 1990s. Australian Super funds have also been on a path of consolidation and increasing asset ownership, with the move away from fully outsourced models starting around 15 years ago.

The trend looks set to continue, with Northern Trust reporting around two thirds of Australian-based asset managers seeing insourcing as a key industry driver^{F9}. More generally, a recent survey of large global asset owners^{F10} reports a continued drive towards in-house management. Some 54% of respondents were looking to increase insourcing over the next 5 years, compared to 12% looking to outsource more. For smaller funds, the difference was more emphatic at 64% and 9% respectively.

Asset ownership comes with challenges – resources, skills and governance

Not surprisingly, the activities taken on internally – and the consequent need for governance, skills and resources – increase with progression from L1 to L4. Skills can broadly be thought of in two areas:

- Investment evaluation skills: managers, markets and securities, public and private;
- Operational and risk management skills: Direct asset ownership (via segregated accounts), trade execution, risk evaluation and action.

When moving to higher level models, a big step-up in governance and complexity comes with asset segregation (direct asset ownership) and security selection. 1886 Consulting^{F5} note the relationship between in-sourcing and complexity is non-linear, especially the move to Level 3 resulting in a substantial increase in people, process, technology, complexity and operational risks. We have proposed the partnership model to capture many of the benefits of asset ownership without fully internalising all aspects of portfolio management. Internal staffing could remain relatively light compared to L3 and L4 ownership.

To give some sense of the level of the additional resources needed, for each model we show typical levels for investment staff (investment professionals and support), percentage managed internally and assets under management (AuM)^{F11}. Note these are indicative only and any one investor could easily be outside the ranges shown.

Asset ownership at the Investment Enterprise level is broadly equivalent to any large, multi-asset global manager, with a deep investment capability applied on a global scale. Governance and complexity challenges are commensurate.

We elaborate on asset ownership challenges and a partnership approach in the next section.

As can be seen, staffing varies widely. *Within* each model this is largely due to portfolio sophistication. For example, GPFM manages a relatively simple, largely passive, portfolio with a staff of around 650. In contrast, staff at CPP exceed 2,000. Both would be considered Level 4 asset owners.

CASE STUDY

Dutch Pension Fund – a thoughtful balance of resources

The Fund began in 2014 and is a collective defined contribution scheme for employees in the Netherlands. Since then, it has grown from zero to around €4.2 billion, and with regular contributions should continue to grow strongly. The current portfolio is broadly split between a matching / LDI portfolio and a return portfolio. Return portfolio assets include equities, high yield credit and real estate. The matching portfolio is composed largely of European investment grade credit but also includes a private allocation to Dutch mortgages.

The Fund employs an interesting mix of internal and external resources. There is a strong preference for a small internal team of generalists as this helps with decision-making. The team of three is therefore careful with how are where resources are used. For example, active management is used selectively in equities, with a global developed passive mandate complemented by specialist active equities in European and Japanese small cap and in emerging markets. Similarly, the internal team are responsible for manager selection in public markets but are supported by a consultant for private markets.

Despite the small team and moderate fund size, the Fund has elements of higher asset ownership. For example, the internal team directly manages investment grade credit, FX and the LDI portfolio, and most assets are held directly in segregated accounts. There are no plans to increase the team significantly, perhaps adding one over the next couple of years, with potentially a team of five in the longer term.

From a Governance perspective the board sets investment policies, strategic asset allocation and interest rate exposure. Given internal board expertise, it does not rely on consultants. The internal team acts as an advisor to the board, particularly around asset classes and manager recommendations. Resources can be flexibly managed, for example when considering a new asset class consultants can be brought in depending on urgency and type of asset (private vs. public).

The Fund places a strong emphasis on liquidity due to the need to rebalance portfolios to target risk weights. There is concern about oversized private allocations after a sell-off in liquid markets, as happened in 2020 for example. Changes to the Fund in the next few years will see a greater focus on rebalancing, but also a greater allocation to the return portfolio. New private assets are being considered, particularly infrastructure and to a lesser degree private credit. The total private allocation is unlikely to exceed 20%, however.

For illustrative purposes only.



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F1.

Over the years complexity significantly increased with, for example, ‘specialist’ asset classes, private markets and liability-driven investment. Note that delegated arrangements have been around for some time in the form of Manager-of-Manager arrangements but were used selectively. OCIO arrangements have in part become popular as DB pension funds have closed.

F2.

As the name suggests, OCIO managers typically act in the same way as an internal team might do when organised as a CIO function. Typically, the OCIO takes responsibility for asset allocation and manager/ fund selection, with direct investments delegated to specialist managers (typically 10 to 30).

F3.

The logic being that domestic investment is already covered by Norway’s physical oil assets, and aggregate diversification is therefore improved by a non-domestic GPFG.

F4.

Note that many UK Master Trusts have committed to increasing private market allocations under the Mansion House Accord. The position shown in the chart reflects the current situation. Portfolio sophistication varies widely for UK Wealth managers depending on client segment - from ‘retail’ to ‘ultra-high net worth’.

F5.

With acknowledgement to the categorisation proposed by 1886 Consulting. See No ‘best’ model for Super funds.

F6.

For example, factor or smart beta strategies.

F7.

Private markets: Asset owner evaluation of General Partner (GP) for Limited Partnership investment. External manager to make case for underlying investments. Hedge Funds: Evaluation of specific hedge funds (single or multiple strategies). External manager to make case for underlying strategies.

F8.

Co-investment is a form or direct single deal investment, but due diligence has been undertaken by the GP. The asset owner still needs to assess and approve the proposal.

F9.

See Age of Insourcing Article NT Aug 2024.

F10.

Survey of 26 large global asset owners. Data provided by the Thinking Ahead Institute. Smaller funds are relative to the group, with assets between \$40 and \$100 billion.

F11.

Author’s assessment based on triangulation from a wide range of specific investors and data from the Thinking Ahead Institute.



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Asset ownership challenges and a 'partnership' solution



Key takeaways

- Increasing the level of asset ownership presents significant challenges.
- A partnership model may have some key advantages.
- Could collectivism help in the UK?
- There are many influences on the 'optimal' model for different asset owners.



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In this section we discuss the challenges of asset ownership and elaborate on the partnership model as an alternative. We also consider factors that influence which ownership model is suitable for different investors.

Motivations for asset ownership

Having covered the benefits of scale and asset ownership, we briefly discuss the motivations most often mentioned by investors, regulators and commentators.

Cost saving is probably the most often reported reason for greater asset ownership. Large asset owners argue that external management costs absorb too much of long-term returns and that scale makes internal management economically viable. For example, a JP Morgan article^{G1} notes that CBUS has saved AUD 1 billion in fees since 2017. Australian Super is also noted to be saving AUD 200 million a year. Internalisation helps in at least two respects: staff costs fall with size since they are not directly related to AuM; and bonuses are typically lower than external performance fees, especially in alternative assets^{G2}.

As well as cost, Northern Trust^{G3} note a desire for greater portfolio control. Insourcing gives asset owners the opportunity to customise holdings, for example avoiding exposure to sensitive industries like oil and gas or tobacco. Similarly, they also cite better control over liquidity, particularly with significant allocations to private markets. Regulators are also placing increased emphasis on direct oversight, reporting, and operational resilience. For example, the Pensions Regulator in the UK states that pension schemes must have governance systems that “provide the governing body with oversight of the day-to-day operations of the scheme” and that give “the governing body with assurances that their scheme is operating correctly and in accordance with the law”.

Finally, many asset owners argue that insourcing improves strategic flexibility and access to investment opportunities. Sovereign wealth funds and large public pensions increasingly seek direct access to infrastructure, private equity, and co-investments rather than relying on intermediaries^{G4}.



Issues and challenges

Whilst asset ownership offers substantial benefits, it comes with many governance, operational, and organisational challenges. We cover key issues below, although the list is by no means exhaustive:

Culture

Moving from an outsourced model to a high level of asset ownership requires a fundamental shift in organisational mindset. It means moving beyond oversight into direct decision-making, clearer accountability, and stronger internal investment conviction. Boards must also support the long-term development of capabilities, governance, and organisational effectiveness.

The CIO role also needs to broaden beyond domain knowledge excellence. It requires a blend of investment expertise, organisational leadership, talent management, governance skill, and cultural stewardship. Recent CIO changes at several Australian Supers seem to be indicative of this shift from ‘investor CIO’ to ‘enterprise CIO’, with broader or less investment focused backgrounds of new appointees.

The Thinking Ahead Institute (TAI) note that culture is multi-faceted and broadly grouped into five cultural characteristics: client-centric purpose, people-centric ethos, excellence, integrity and leadership. They identify factors that are important for competitive edge (inclusion, transparency and innovation), sustainability (long-termism, risk culture, agility) and leadership (empowerment, vision, adaptability)^{G5}.

Governance

Boards become directly responsible for supervising a much broader, complex and more technically demanding operation. The IFSWF^{G6} notes that successful insourcing requires “a strong governance structure in which there is independence, understanding and accountability”. Board members need sufficient expertise and experience to effectively challenge specialists in increasingly technical areas. A particular difficulty arises in evaluating internal teams effectively and consistently since they are more ‘embedded’ than external providers. In addition, TPA (if used) requires a more holistic approach to organisational design and portfolio management; for example, moving away from traditional asset class silos to exposures and risk budgets.



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Attracting and retaining talent

Asset owners need to compete with external managers for specialised and highly skilled talent. Competitive compensation can be particularly difficult for public plans that face restrictions or political scrutiny. Similarly, DC funds face scrutiny and competitive pressures on costs. Funds can offer various ‘workstyle’ benefits to offset direct compensation, at least to a degree – see the Aware Super case study for comments on its employee value proposition.

Location is also an important factor in attracting talent. As funds have moved up the asset ownership spectrum they have increasingly ventured overseas. For example, Australian Super opened its first overseas office in 2012 (Beijing) and now invests more than 50% of assets offshore, with growth continuing⁶⁷.

The IFSWF⁶⁶ notes that “passive, listed equity or debt” strategies are generally easier to insource than “active strategies, or private-market investing.” Specialised investment strategies often require extensive sourcing networks, deep technical expertise, and highly experienced personnel that are difficult for funds to replicate internally.

Data / systems / tech – operational complexity

A host of specialist systems and data are needed to support in-house activities such as asset / security evaluation, execution, direct ownership and risk management. Funds must either build these capabilities internally or purchase them from third-party providers, both of which can be expensive and operationally risky. The TAI note that funds should plan to spend at least 20% of their budget on data and technology. New investment in tech also follows a J-curve path, with the benefits of high up-front spending often taking years to come through. Given these and similar issues, Northern Trust argues that “Operational complexity is the biggest single reason an asset owner chooses not to insource”⁶⁸.

Risk management and compliance

Risk is multi-faceted and only partly quantifiable. Asset owners need to develop independent oversight functions, establish sophisticated risk-management frameworks, and ensure ongoing regulatory compliance across multiple asset classes and jurisdictions. The IFSWF recommends that institutions build dedicated risk-management systems and independent oversight functions to support internal investment operations.



Liquidity management

Whilst liquidity management is an issue for funds generally, it is exacerbated by large private market allocations. Governance is needed in planning and managing cashflows and investing and disinvesting from illiquid assets. In addition, private assets cannot easily or quickly be rebalanced leading to portfolio management issues, both at a policy level as well as day-to-day implementation.

Ambition, transition and timeframe

There is a danger that institutions overestimate their ability to build a competitive asset management organisation, or the timeframe to do so. For example, the Investment Innovation Institute⁶⁸ believe that many organisations suffer from “planning fallacy and overconfidence bias” when attempting to build internal investment teams.

Overall thoughts

Not surprisingly from the above, significant economies of scale are needed to justify the costs of building in-house resources. In Section F we estimated typical asset sizes for the suggested asset ownership models. Smaller asset owners may struggle to achieve the necessary economies of scale. In addition, there are transition costs and risks associated with moving assets in-house, which can temporarily affect performance and operational stability. Certainly, multiple billions of pounds are needed to embark on the journey.



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CASE STUDY

USS: High level focus on key issues. Scale at work.

USS is the largest private sector pension scheme in the UK, with assets of around £84 billion. It is largely a defined benefits scheme and open to new members. It has been a trailblazer in private market investing. USS has an internal investment management company (USSIM) of around 300, with ~85 investment professionals covering private markets. Some 70% of assets are managed in-house, which has led to significant cost advantages; despite a near 30% private market allocation, total investment costs are around 30 bps per annum.

Evolving roles: Board vs. Internal management

Governance has evolved significantly, with a big change occurring in 2022. To further develop a delegated internal model, the board role moved away from strategic asset allocation to focus on important issues such as: setting objectives and risk appetite, engaging with high-level advice, and ensuring alignment with its liabilities and covenant support.

In addition, a balanced scorecard has replaced the reliance on a single reference portfolio as a measure of success. The balanced scorecard encourages assessment against a broader set of objectives that better reflect the scheme's funding position, risk composition and the changing external environment.

The changes have helped to embed a common understanding of the issues that really matter and led to a more adaptable process through regular dialogue between executive and board. For example, there is an ongoing debate over risk appetite given changes to funding level and employer covenant over the last few years. Similarly, focusing on bigger picture issues allowed a better dialogue on the balance between growth asset and liability risks.

In turn, the internal management team has been given greater freedom to make decisions within agreed risk parameters. The LDI crisis was an example of the benefits of the revised model. Because liquidity and collateral risks had already been analysed and the executive was empowered to act, the scheme was able not only to avoid stress but also to take advantage of market dislocations.

The executive team of the in-house investment manager is the principal investment advisor to the board, although external advisors provide support. The internal team, with a focus on its sole client, has a very deep understanding of the scheme and its participating employers.

Internal vs. external management

USSIM use a mix of external and internal management in most asset classes. The Scheme has clear views on where to use internal and external management. For example, external management is more useful:

- Where external economies of scale already apply, for example in money market and passive management;
- For assets that might have a limited life in the portfolio i.e. opportunistic ideas;
- Where retaining staff is more challenging, for example private equity and growth focused public equities.

USS believes that internal expertise is important in understanding markets and therefore risk, and that managing at least some assets internally helps. For example, the Scheme built up an LDI team with the market understanding needed to manage its very sizeable exposures.

The private market journey

The Scheme began its private markets journey in 2007, initially committing to investing in private equity funds, with co-investments following shortly after to reduce costs.

USS sought to develop internal capabilities in real assets and credit for several reasons:

- Internal understanding of Scheme's need for sterling cashflows with long-term inflation and interest rate exposure;
- Few external managers with the relevant focus;
- Less onerous deal sourcing and granular industry knowledge compared to private equity;
- Significant cost reduction.

Initial co-investments allowed USS to gain more confidence and build up investment evaluation and operational skills. USS executed their first direct infrastructure transaction in 2011. Skills now extend to oversight investee companies, for example advice on debt structure or board representation.

USS largely makes use of funds and co-investments in private equity as direct deal sourcing is more of a challenge. Co-investments have performed well. Given rising interest rates, the Scheme has been pivoting towards earlier stage growth companies and away from more leveraged buyouts.

Today the Scheme manages around £25 billion in private markets, 70% of which is managed internally. This has led to a significant cost advantage over external management; internal private market costs are just 15 bps. USS is aware of the need to pay competitively, although acknowledge that some staff attrition is inevitable. Internal management has attractions though, for example allowing staff to focus on investment (as opposed to the distraction of fund-raising) and investing with a genuine long-term horizon.

I think we need to have people that really understand markets, that's the difference between forward looking and retrospective risk assessment.

Simon Pilcher
CEO, USS Investment Management



A collaborative / partnership model alternative

The above challenges highlight the difficulties in pursuing higher levels of asset ownership, with organisational dis-economies of scale potentially kicking in (as noted previously).

TPA creates another potential driver for organisations to remain light and nimble. TPA's holistic and dynamic approach suggests that teams and individuals need to be (cognitively) broad, flexible and interactive. This is easier to achieve for a smaller organisation. In contrast, with the traditional SAA approach, domain specialisation means that teams are relatively independent. Staff levels can multiply with the number of asset classes and functional 'silos' needed.

For these reasons, we propose a partnership variant of Model 3 which internalises key aspects of portfolio management whilst working with asset managers and other specialist partners to fulfil functions such as dealing and order management externally. In this way, investors can focus on (most of the) added-value activities without the infrastructure and complexity of security evaluation and execution. They can therefore retain a 'light and nimble' organisation.

The partnership model is consistent with a survey by Charles River⁰⁹ which indicates that around 60% of asset owners are looking to reduce the number of outsourcing firms they use to focus on deeper, more strategic relationships.

Details of activities carried out by asset owners and the supporting roles of partner organisations are shown in **Exhibit G1**.

Exhibit G1
Hybrid Partnership Approach – Asset owner activities and partner support

Key Asset Owner Skills / Activities (segregated portfolio)

Policy (Board)

- Investment objectives / risk tolerance.
- ESG principles and policies.
- Governance and proxy voting policies.
- Portfolio, internal team and external provider monitoring.

Portfolio construction

- Asset allocation, manager structure¹ and target exposures. Control through manager allocations and bespoke mandates. Use TPA process as relevant.

Risk and performance

- Portfolio exposure / risk analysis and interpretation. Broad risk scorecard. Input to portfolio construction.
- Operational risk monitoring and actions.
- Performance attribution.
- Liquidity and cashflow management.

Direct evaluation

- Asset classes / markets (strategic and / or medium term).
- Systematic investment strategies, e.g. smart beta.
- Assess and approve:
 - Private market funds and co-investments.
 - Alternative investment strategies.
 - New, niche or opportunistic investment ideas / strategies.

Manager / partner engagement

- IDD, ODD and monitoring.
- Control and alignment through bespoke terms.
- Idea sharing / regular discussion.

For illustrative purposes only.

Note: We assume a sophisticated portfolio, including private markets, for illustration.

1. Decisions around the use of active, systematic and passive management in different parts of the portfolio. Considerations include alpha and costs budgets.
2. A few specialist managers may also be needed in specialist areas, e.g. small cap, emerging markets, high yield.
3. An alternative structure is for security weights to be 'coded' into a custom index and passively tracked with a 'scale' indexation manager.
4. A few GPs needed, likely specialised by private equity and real assets.

Partner support / input / implementation

General support from some of the Partners below:

- Research including macro/market views, training and development.

Consultant

- Selective advice.

Broad multi-asset manager(s): public markets²

- Customised mandate with adaptable and granular parameters to facilitate asset allocation:
 - Support evaluation of systematic investment strategies, e.g. smart beta³.
 - Portfolio implementation: security selection, execution and settlement. Mix of active, systematic and passive strategies³. Incorporate ESG policies.
 - Source and evaluate new, niche or opportunistic investment ideas / strategies.

Private Market Manager(s) (GPs)⁴

- Formal or semi-formal arrangements with select GPs in return for fund and deal access:
 - Source and evaluate private market deals. Deal execution and ongoing company oversight /management.
 - Fund and co-investment access.

Derivative overlay manager

- Bespoke mandate with adaptable exposure targets and ranges (incl. or excl. physical portfolio). FX, interest rates and other 'beta' exposures:
 - Execute exposures within guidelines, reporting, etc.

Portfolio analytics / tech platform provider(s)

- Customised reporting aligned to organisational objectives and risks:
 - Performance and risk analysis, reporting. Complete / accurate data in real time. Integrated system(s). Comprehensive coverage (esp. private and public markets).

Custodian

- Bespoke terms and services:
 - Accurate and complete portfolio data. Integration into tech ecosystem.
 - Additional services for example: equitisation, tax reclaim, securities lending, cash and liquidity management, guideline and compliance monitoring, collateral / counter-party management.

Brokers (Banks)

- Negotiated terms for preferred providers with various added value services:
 - Transition management, finance, capital intro, custom indices/derivatives, IPO access, specific trades.

Others

- Proxy voting services, data.



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The partnership approach involves asset owners collaborating with fewer organisations, each having a broader remit. For example, in public markets this might be broad equity or bond mandates, or both. In private markets, GPs should have a relatively broad reach and ability to offer co-investment opportunities. Neither prevent the use of specialist management in specific areas if needed, and exposure management is likely a specialist activity in any event. Needless to say, managers need to have both breadth and depth in their capabilities. Segregated assets allow investors to partner with specialist providers such as custodians and brokers. These organisations offer a range of services that can support efficient portfolio and risk management, for example securities lending, equitisation and cash management.

The extent of activities undertaken by each party will vary by area. For example, asset owners should determine all higher-level issues (objectives, risk tolerance etc.) and mandate design (coverage, constraints etc.). Asset allocation is largely an asset owner decision, but partners could offer significant input via macro views and modelling support. At the other, external partners need to conduct due diligence on co-investment or opportunistic ideas, for asset owner challenge / approval.

As can be seen from **Exhibit G1**, asset owners retain responsibility for most of the portfolio decision-making, with input from specialists across a range of activities. The extent to which partnership organisations have a ‘seat at the table’ is down to individual asset owners. This could range from a role as trusted advisor to representation at decision-making meetings or even some voting rights. Potential conflicts should be understood and assessed on a regular basis, although this applies to the internal team as well as external providers. Care is also needed to ensure that decision-making remains effective and is not degraded by any external representation.

Key advantages of the model are:

- Retains decision-making and influence over most aspects of portfolio management;
- Partnership managers and service providers can support activities such as asset allocation and efficient portfolio management, i.e. extend resources and therefore reduce the need hire and retain staff;
- Significant cost savings can be achieved from fewer and broader strategic relationships compared to out-sourcing or multi-specialist manager models;
- Strategic relationships are helpful in fostering co-investment deals and other opportunistic and niche ideas;
- Avoids the complexity and resources needed for individual security evaluation, execution and settlement. There is some cost disadvantage compared to full (L4) asset ownership however;
- Has more flexibility than the full ownership model in terms of ‘orchestrating’ external managers and providers;
- Allows the internal team to remain relatively small, which facilitates decision-making, and potential governance problems in scaling to high levels of internalisation;
- May be more suitable for large – but not mega – asset owners.

A potential downside of the partnership model is the embedded nature of relationships; it may be more difficult for investors to terminate relationships even if contractually possible. However, a similar – if not greater – challenge exists with internal management. Investors should run a ‘contingency panel of alternative providers who will likely also be willing to provide some support!

The partnership model may be particularly useful for asset owners that are large but not mega, or that want a moderate allocation to alternative and private markets assets (for example 10 to 15%). For investors embarking on a journey of increased asset ownership, the partnership model may be a more achievable prospect, and a useful model for UK DC pension funds, Master Trusts in particular. Given their starting point and likely size (even post consolidation), we believe that selective insourcing combined with strategic partnerships, co-investment and specialist expertise may ultimately deliver a better balance of outcomes than trying to replicate the Canadian model in full.

We comment further on aspects of the collaboration model below.



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CASE STUDY

Partnership model at Scottish Widows

Scottish Widows is a large asset owner with c. £220 billion in assets across workplace pensions and other policyholder investments, including multi-asset and single-asset portfolios. Within this, total workplace assets are c. £100 billion, with most assets held in multi-asset default funds. Scottish Widows adopts an open architecture approach, preferring external manager selection over building direct internal capabilities. Core exposures include public equities and bonds, with a substantial passive allocation alongside selected active strategies. Most assets are held in segregated accounts housed inside Scottish Widows funds.

A team of 16 currently forms the core internal resource for manager selection within multi-asset portfolios. However, it makes use of other resources, including internal teams that assist with manager sourcing, quantitative evaluation, and operational due diligence.

Focusing on delivering for customers, the team invests with a select number of external managers that act as strategic partners. As well as security selection, managers provide input and assistance across activities such as strategic asset-allocation, market insights, portfolio modelling and construction. The team seeks to avoid asset class silos and considers how investments live and breathe together, what that will look like and feel in terms of customer experience, and how they can deliver incremental investment along the journey. Partnership managers support idea generation and innovation which is key to this.

The model depends on choosing managers that value genuine collaboration, are transparent and willing to work with one another, for example in transition management which fosters trust and is critical to delivering the right investment outcomes for customers over time.

From a governance point of view, Scottish Widows retains control over strategic asset allocation, manager oversight, mandate design and customer accountability, while using formal review processes and internal committees to monitor performance, liquidity and risk. Responsible investment is also embedded in the governance framework. The partnership model gives Scottish Widows access to specialist capabilities and broader market perspective without trying to replicate a full asset-management platform in-house.

Scottish Widows recently launched an LTAF to invest broadly across private markets. The new fund follows the external partnership model with one manager selected for growth assets and one for credit. The LTAF should evolve over time to include co-investments and direct holdings as scale builds. Scottish Widows are not signatories to the Mansion House Accord but have a strong corporate mission to invest in the UK if opportunities are attractive.

The partnership model is particularly pertinent in private markets with different managers providing specific market access and execution to capabilities. Private markets are more collaborative and operationally complex than public markets, so partnership offers a practical way to access specialist opportunities, manage liquidity and build new structures while still retaining strategic control and independence.

With cost pressures being a material consideration across DC investments, the combination of scale and longer-term strategic relationships help Scottish Widows to negotiate strong commercial terms with its partners. However, net outcomes are most important for its customers than costs per se. For example, a recent manager search excluded fees at the

RFP stage of the selection process, with the investment proposal and opportunity being the primary consideration and commercials featuring later. There is acceptance that private markets can be more expensive to access. There are differing views on the merits of performance fees, with acknowledgement that performance fees structured in the right way can support alignment of outcomes.

The benefits of working with a small number of trusted partners needs to be balanced with reliance on a limited set of firms. Scottish Widows are mindful of the need to remain independent. Managers are regularly reviewed against objective criteria and issues can, at least in part, be addressed through the mandate design. Whilst there are relationship commitments, performance guardrails are in place. Similarly, new mandate searches follow a structured approach to allow a wide range of providers to be considered.

...identifying organisations with cultural alignment, people who want to do the right thing, who understand your propositions and ambitions, ultimately become real extensions of your team. Fostering these partnerships is critically important to us.

Heather Coulson

Head of Portfolio Management, Scottish Widows

Security selection

Whilst security selection is partly delegated, it is heavily influenced through manager structure and the use of bespoke mandates. More directly, asset owners are involved the assessment of systematic strategies, co-investments and other niche or opportunistic ideas.

Broad multi-asset management

The use of broad multi-asset management contrasts with the multi-manager specialist model commonly used by institutional investors. However, there are several potential advantages of the broader approach, assuming sufficient manager scale, depth and breadth to be effective:

- More resources to support asset owners;
- Fewer manager relationships. Investors can gain a deeper understanding of manager capabilities. Similarly, asset managers can gain a better understanding of investor objectives and circumstances etc.;
- Lower costs due to fee scaling at higher AuM per manager (other things being equal);
- Facilitates manager structure implementation. Mandates can be a combination of active, systematic and passive elements;
- Facilitates asset allocation. Bespoke mandates can easily be amended to facilitate change. No loss of manager relationship if a particular (sub) asset-class is removed for a time;
- Access to opportunistic or niche ideas from manager broad coverage;
- Better execution due to manager scale (e.g. internal crossing) and trading sophistication.

These potential advantages should be considered alongside the potential disadvantages and trade-offs of a broader approach, discussed throughout this paper.

There is surprisingly little up to date research on the specialist vs. multi-asset management debate. A paper by Blake et al⁶¹⁰ notes better performance for specialist versus multi-asset management (more than one asset class) in UK equities, UK bonds and international equities. The data is old (up to 2004) and before fees however. A recent paper by Barnet Waddingham⁶¹¹ notes that no single approach works best in multi-asset management. Whilst it does not address specialist management specifically, it does include fiduciary managers that typically employ a multi-specialist manager approach.

Note also that the proposed use of broad multi-asset management is not exclusive; specialist managers can be used selectively where needed.

Private market access through co-investments

As noted in Section C, co-investment opportunities are attractive because they typically come with low fees. They are a way of getting investors further up the value chain, while still letting General Partners (GPs) handle the bulk of the processes, such as sourcing deals, primary due diligence and oversight / management of holdings. In addition, co-investments allow investors to match the investment opportunity to their risk profile.

They are not a free lunch, however. Investors still need to assess and approve the opportunities presented, which requires industry knowledge and skills in evaluating opportunities. Governance processes also need to enable rapid go / no-go decisions. A thought-piece by BCG⁶¹² notes that the move from funds to co-investments involves a significant step-up in asset owner capabilities. But less than the “massive” increase needed for direct investment. See **Exhibit G2**.

From a GP perspective, co-investment has some disadvantages – for example downward pressure on fees and unpredictability of deal timing and amount (as these are investor dependent). On the other hand, co-investments allow GPs to seek large-scale deals that they would otherwise not be able to pursue with a single fund. The number of co-investment deals is not infinite, and investors need to position themselves as attractive partners for GPs. BCG suggest the following measures can help:

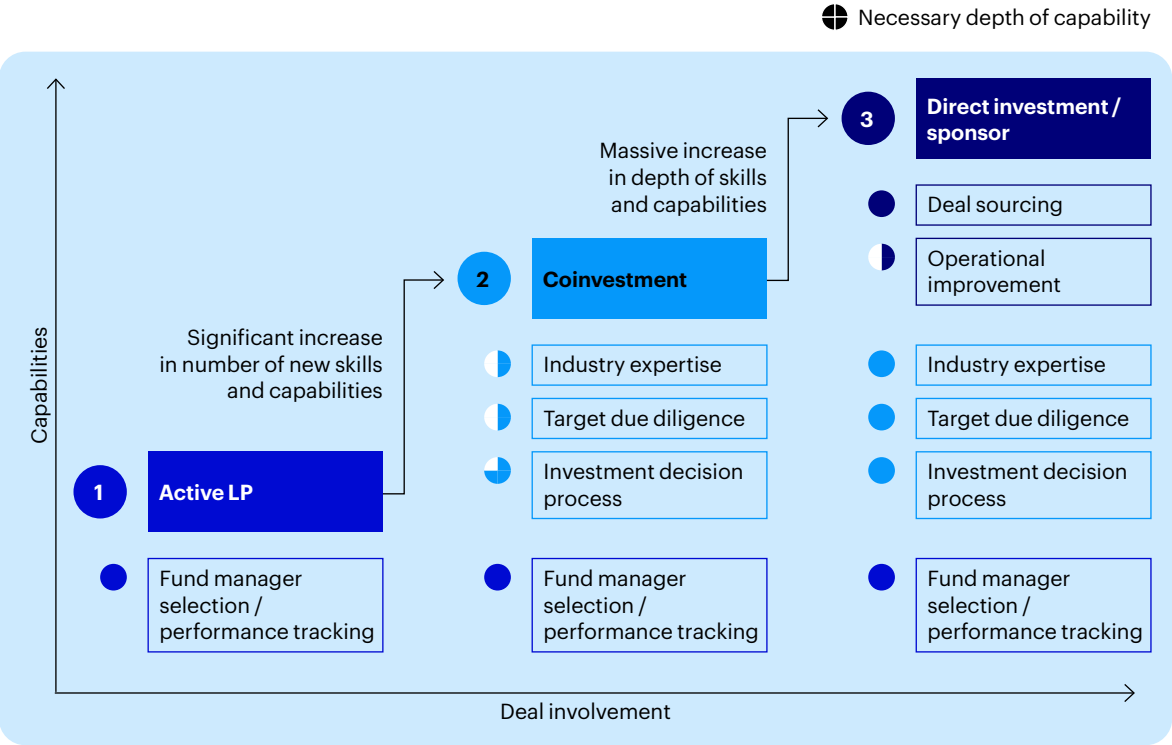
- Hiring staff with strong professional networks and hands-on deal experience;
- Streamlining the internal approval process to mirror the demands of partner firms and the realities of the deal process;

- Being strategic and selective about the partner firms; forge deeper relationships with a smaller set of players. Being transparent about key objectives – strategy, expected returns, and investment profile etc.;
- Ensuring that the deal team gets prominent coverage in the media, including its experience and capabilities.

Operational alpha

It is worth noting that many of the value-added services offered by custodians and banks provide investors with support for many of the portfolio efficiency activities discussed in Section C. This is particularly helpfully given the technical nature of the areas covered.

Exhibit G2
Rising levels of resource and expertise needed as direct private market involvement increases



For illustrative purposes only.
Source: BCG Private Equity article.



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CASE STUDY

What partnership means for People's Pension

People's Pension is a £44 billion DC Master Trust, one of the UK's largest workplace pension schemes, for all employees, in every sector, and for businesses of all sizes. Today, People's Pension manages the pensions of over 7 million individuals from 100,000 different employers across the UK economy and takes in over £4 billion annually of new contributions. People's Pension (PP) is run by People's Partnership – a profit-for-members organisation which reinvests profits to help customers achieve better financial outcomes.

As People's Pension grew substantially in recent years due to the growth of auto-enrolment, People's Partnership implemented a new asset ownership model beginning in 2023. This saw the internal dedicated investment team grow from 10 individuals to 35 today (supplemented by shared services in areas like risk, compliance and legal across the wider business), and the implementation of a partnership delivery model aided by substantial external investment manager partnerships. As part of this evolution People's Partnership's investment subsidiary People's Investment Limited was appointed as the primary investment adviser to People's Pension from January 2025.

The framework for the partnership model

The current model is based around a small number (People's Pension has 4 external investment managers in the default fund as of August 2026) of strategic partnerships with investment managers and the custodian. Today, the Asset Ownership Model is based on:

- A small number of partnerships with aligned investment managers and custodian;
- Segregated mandates with significant control and bespokeing;

- Operational fund hierarchy that links underlying segregated mandates up to the member level funds, controls allocations and fund flows;
- A highly specialised internal team supported by systems that put the team in control;
- Focus on a single large scale default investment arrangement;
- Investment advice provided to the Trustee of People's Pension;
- Tightly held set of investment beliefs between the investment team and trustee;

The model provides enhanced transparency, data ownership and implementation control compared with traditional outsourced structure.

The framework for PP's external partnerships includes the creation of specific investment "building blocks" by way of dedicated segregated mandates, and a collaborative process between investment managers and the internal team to advise on the blending of those building blocks to deliver investment outcomes, and the creation/introduction of new building blocks where relevant. This relies on a tight and deep working relationship between PP's internal team and the external partners, and a constant flow of information exchange between the investment teams within the investment managers and the teams covering them within PP.

Why this partnership approach to asset management?

This model was put in place to ensure scalability of the investment approach as the assets within the Master Trust grow considerably over coming years, gaining significant operational leverage through the resources available to the investment management partners, and leaning on partners for the core dealing and order management functions across portfolios.

What this approach enables

This enables People's Partnership to make the most efficient use of a focused internal team, focusing on the higher value-adding areas of the investment chain such as asset allocation and strategy design where the team can add most value to members' pensions.

How does this work in practice?

People's Investment Limited operates a Management Investment Committee consisting of the heads and co-heads of all the desks within the investment team, which is responsible for recommending / reviewing and endorsing all the investment advice to the Trustee, including Strategic Asset allocation, manager selection and key investment strategy parameters. This committee, led by the CIO, takes a Total Fund approach to management when allocating capital across asset classes to best deliver the agreed objectives of the member funds. This committee looks to allocate risk budget, fee budget and illiquidity most efficiently across asset classes, and also incorporates an Operations, Responsible Investment and Risk lens into all investment advice. The MIC also incorporates a quarterly review of the investment stance across the whole portfolio, supported by analysis and insight from key partners and the Quarterly Investment Forum.

Tangible examples of how this has delivered value

The Asset Ownership Model has been key to delivering a number of recent upgrades to portfolio allocations that have added meaningful value to members including the development and implementation of an allocation to AAA Collateralised Loan Obligations (CLOs) to the fixed income portfolio, implementation of a quant active approach in Emerging Markets, shifts in regional equity allocations to capture value and the development of market leading approach to Real Assets.





Collectivism in the UK – one step further for private market access?^{G13}

The partnership model stops short of proposing direct private market investments due to the big step-up in resources, governance and skill required.

However, asset owners themselves could pool resources to achieve greater collective scale. This idea is not new and indeed has been realised successfully in Australia. IFM Investors and ISPT were established by industry Super funds (with origins dating back to 1990) to manage direct private infrastructure and commercial real estate respectively. Following their recent merger, the combined IFM organisation now manages some AUD 240 billion across infrastructure equity and debt, private equity, private credit, real estate and listed equities.

In a bid to replicate the success of IFM, the UK Pension Infrastructure Platform (PiP) was launched in 2011 as a not-for-profit fund. Its stated aim was to match the UK's infrastructure investments with pension funds' financial needs. However, differing objective of the 10 founding pension funds, a lack of significant commitments and other factors meant that PiP never gained the critical mass needed to achieve its ambitions.

The idea is not be dead, however. The LGPS pooling arrangements are a form of collectivism. More specifically, a number of LGPS funds came together to form GLIL Infrastructure which holds direct investments on behalf of its members. It currently has around £4 billion in commitments and membership has expanded to include a Master Trust (Nest).

It would seem worthwhile to explore and develop collectivism further. The potential prize is to invest in private markets in the same manner and with the same costs as the largest global asset owners. Arguably there is greater need for collectivism in private equity and opportunistic real assets; deal sizes are smaller (especially early stage), less homogeneous and riskier than core infrastructure and real estate. This requires industry knowledge and depth and breadth in deal sourcing and due diligence. Clearly, there are numerous challenges to embarking on such a journey, and lessons from PiP and elsewhere should be learnt.



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One size does not fit all – factors affecting choice of asset ownership model

The discussion so far might imply an inexorable move to greater levels of asset ownership and portfolio sophistication. However, there are many reasons why this is not appropriate for all investors – aside from the challenges noted. In **Exhibit G3** we summarise key influences for different asset owners. Each is considered stand-alone, but in practice multiple influences will be at play for any given investor. For example, a small internal team size, cost constraints and need for liquidity might lead to a relatively simple portfolio managed under the L2 Advisor / Allocator model. Alternatively, a very large investor with a belief in active management and focus on net outcomes might gravitate to a L3 or L4 model. Examples of where different asset owners sit in the ownership-sophistication spectrum were given in **Exhibit F1**.

Exhibit G3
Drivers of asset ownership and portfolio sophistication

Driver	Comments	Influences on...	
		Asset Ownership	Portfolio Sophistication
Size of assets	Larger assets lead to economies of scale that make internal resources more cost effective.	●	
Internal team size	Whilst size helps in building a larger team, the ability to attract and retain staff is a separate challenge and depends on factors such as location and competitive remuneration.	●	
Belief in alpha / active management	There is no guarantee that (investment) alpha will add value over time. Past data is not complete evidence – beliefs in future success are needed.		●
Tolerance for illiquidity	Asset owners with low tolerance for illiquidity favour liquid (public market) assets, and vice versa.		●
Transparency	A need for transparency favours liquid and simpler assets. However, direct asset ownership allows transparency for more sophisticated portfolios.	●	●
Cost budget or competitive positioning	Cost pressures favour a simpler portfolio or the need for scale and internalisation for more sophisticated portfolios. Alternatively, asset owners may choose where to fit competitively.	●	●
Desire for alternative and private market allocations	There are various drivers for this, both internal and external. Given high costs in these asset classes, there is extra value from scale and internalisation.	●	●
Maturity	A fund with a long-time horizon and positive cashflow has more tolerance for risk and ability to invest in less liquid assets. It also has a longer time to build internal resources.	●	●

For illustrative purposes only.



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G2. Investment Magazine Article Nov 2021.

G3. Northern Trust Article Sept 2025.

G4. Institutional Investor Article Sept 2013.

G5. 'The impact of culture on institutional investors: What is effective culture? The Thinking Ahead Institute 2019.

G6. See IFSWF Insourcing Investment Activity.

G7. Top 1000 Funds article Oct 2024.

G8. Investment Innovation Institute Article Feb 2026.

G9. Charles River Article 2021.

G10. 'Decentralised Investment Management: Evidence from the Pension Fund Industry' Blake et al 2012.

G11. Barnett Waddingham Article Sept 2020.

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G13. See 'Achieving Critical Mass' Nangle,The People's Pension 2023 for a broader discussion.



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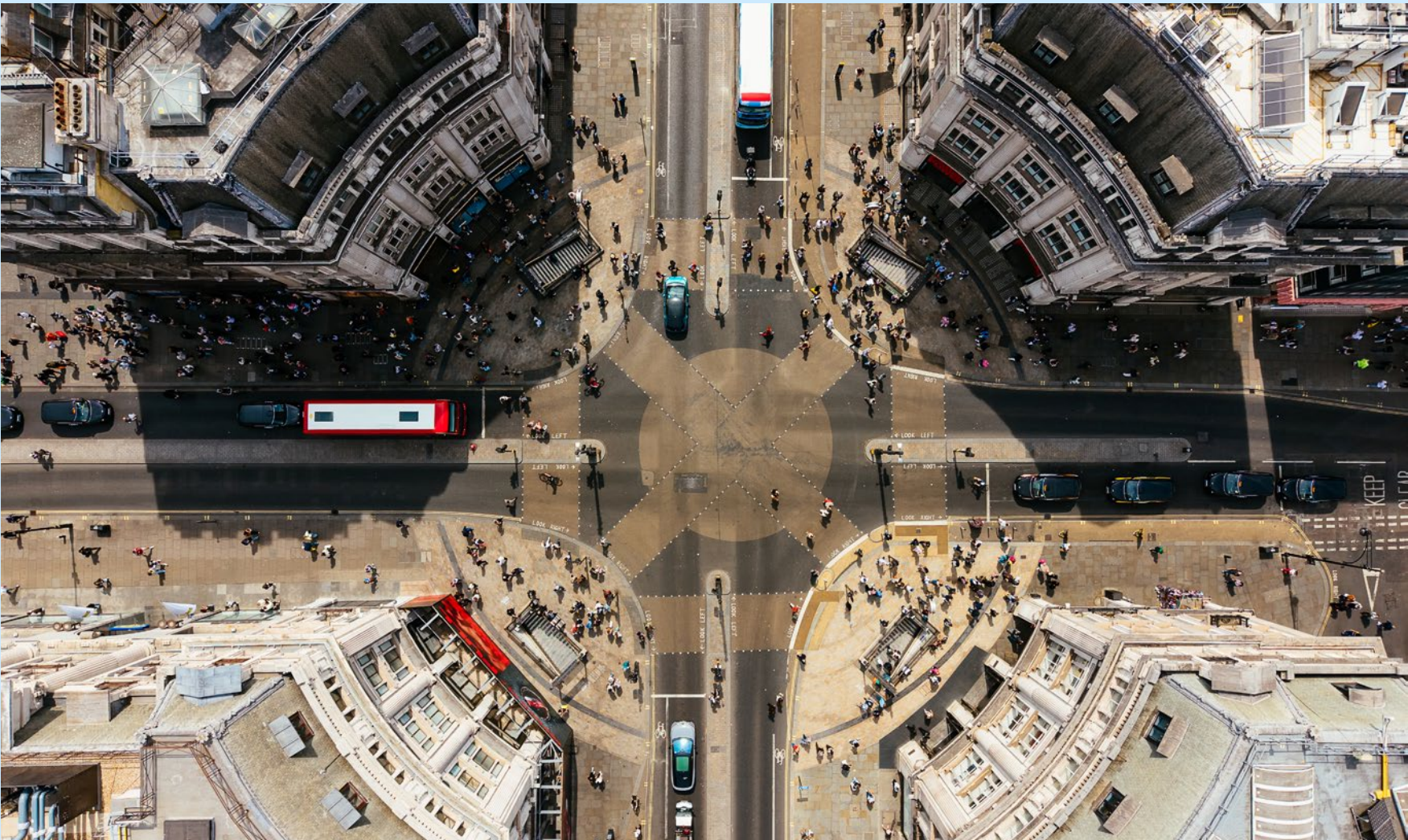
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Conclusion and the way forward



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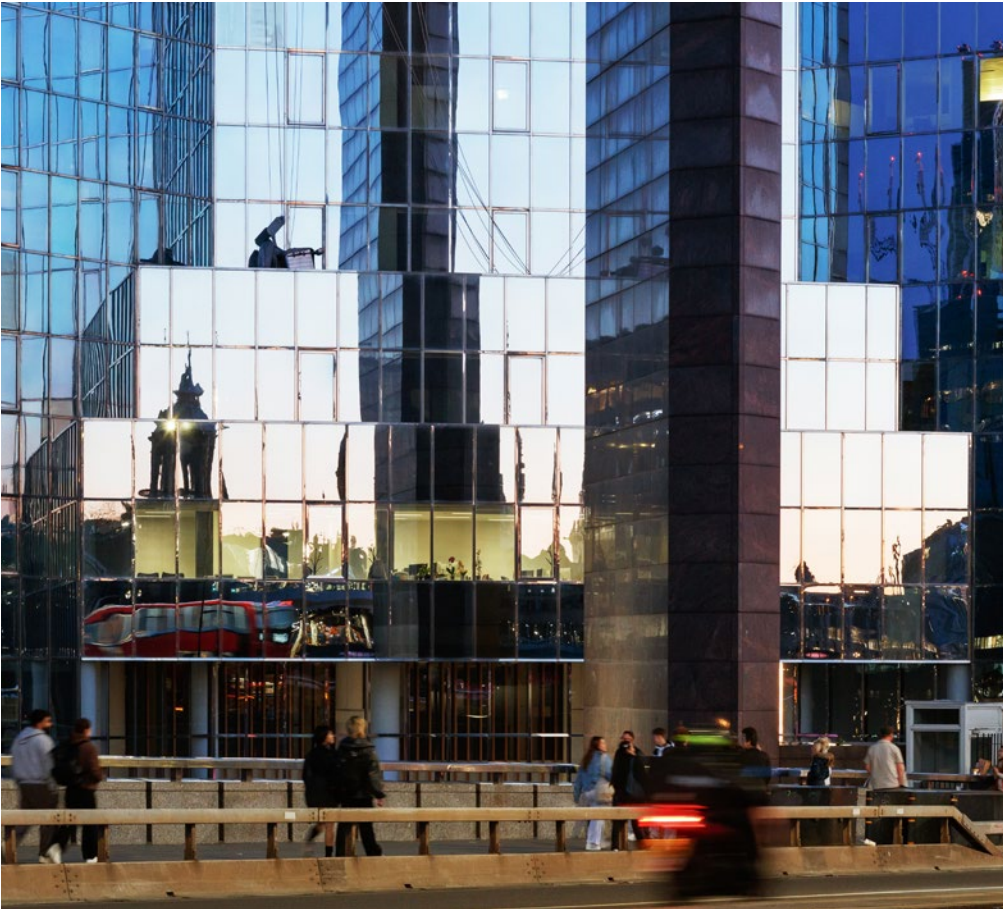
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There is strong evidence that portfolio outcomes can be improved through a range of **investment alpha and operational alpha** activities. But to do so effectively requires **scale and governance**. This is particularly the case for portfolios with significant allocations to private markets and other alternative assets, where external costs can absorb a significant share, if not all, the added value (vis-a-vis simpler public market portfolios). Managing assets internally can be very cost effective, for example investment costs at USS run at around 30 bps per annum despite a 30% allocation to private markets.



UK DC workplace pension funds have some £600 billion in assets. Within this, master trusts are expected to grow strongly, doubling in size over the next 5 to 10 years¹¹. Cost pressures have been a significant factor in the relatively simple portfolios adopted so far, with Nest being a notable exception. There is therefore **enormous potential** for the DC pensions industry to embrace greater asset ownership. We suggested an asset ownership premium in the range of 25 to 125 bps and potential of £30 billion to £90 billion investment into UK businesses. This in turn stimulates economic growth, employment and a wider range of benefits.

Any journey to greater asset ownership will **take time**. Whilst the consolidation ball is rolling, the government's £25 billion target should arguably be seen as a floor, not a ceiling, for scale investing. Experience from Canada, as well as Aware Super and USS suggest it takes at least 10 years to build up appropriate resources for meaningful private portfolio allocations.

Many factors influence the **choice of asset ownership model**, and funds with differing circumstances will reach different conclusions. We believe that a **partnership model** will be attractive for many UK DC pension funds, either as an end itself or as a staging post for future development. For example, co-investment has been, or still is, an important part of private market investing even for very large funds.

Without very significant consolidation, **direct private equity** investment may be elusive for most asset owners. Despite the negative experience of the Pensions Infrastructure Platform, some form of **collectivism** would seem worth considering further. Certainly, a high level of alignment of interest and vision on the part of participating funds is required. Australia's IFM is a more positive example of the successful implementation of a shared platform. A good place to start could be for an existing pension fund or pool to step up to the role of a not-for profit sector-aligned private market aggregator. USS, The Pension Protection Fund, or Local Pension Partnership Investments all stand out as candidates. Whether they have the appetite or capacity to engage in such a role is another question.



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Moving to greater levels of asset ownership – a planning guide

Whilst drivers for consolidation, value-for-money and private market investing are in place, it remains to be seen how far and how quickly the UK pensions landscape will change. For investors wishing to increase asset ownership and / or portfolio sophistication, we give some thoughts below as a planning guide.

1

As with most projects involving significant transformation, it is generally better to **plan with a clean sheet of paper** rather than looking to build from existing structures and practices.

2

Plan for or target a **future asset size** in, say, 5 to 10 years. This comes either through organic growth (investment returns and net cashflow) or amalgamation. It influences the ability to develop scale benefits and / or build internal resources. As noted, £25 billion may be a starting point, not an end.

3

Decide on foundational **beliefs / investment philosophy** that help to ‘shape’ the portfolio. Consider issues such as competitive advantage, beliefs in ‘alpha’ and the value of building more complex portfolios, cost vs. net outcomes. One uncertainty is how VfM will play out in practice given that costs are much more transparent than future outcomes.

4

Decide on **governance structure, organisational design and asset ownership model**. A well as appropriate skills and experience, a key issue is the role of the board in oversight and approval functions. A more bottom-up structure delegates decisions to internal executive teams and vice versa. The TPA approach also raises fundamental questions about how a portfolio is viewed and managed. In turn this impacts governance and team size and structure.

5

Consider **explicit constraints**. Liquidity and cost constraints are likely to be a factor in portfolio design, even with a net-outcome philosophy. For more sophisticated portfolios investors will likely need to grapple with two specific issues:

• **Performance fees.** Performance fees, if well designed, offer a way to better align costs to outcomes. There are numerous issues in designing performance fees however, for example setting appropriate hurdle rates and reducing unfavourable optionality.

• **Cost budgeting.** With higher fees in alternative assets, cost budgeting is more important. A cost budget could either be a hard cap or, if more flexibility, a cost penalty hurdle^{H2}. Either way, there is – in principle – an ‘optimal’ spending trade-off across differing internal and external resources.

6

Plan resources. This includes both staffing and ‘infrastructure’ especially data and technology. The asset owner should have a clear idea of how the organisation will compete and retain talent, i.e. its employee value proposition. Staffing levels and team organisation will almost certainly evolve over time, depending on the input of early senior hires. IT and data depend on portfolio sophistication and whether assets are held directly.

7

Prioritise areas for build-out. This to a degree depends on portfolio approach. For example, a focus on operational alpha suggests prioritising direct asset ownership, liquidity and exposure management. A planned increase in portfolio sophistication suggests building capabilities in alternative and private assets. Within this, a logical move is firstly into funds and then co-investments. Similarly, it is likely easier to move to direct investment in infrastructure and real estate than private equity.

8

Allow for a realistic timeline. It takes time to build internal governance and resources – plans need to be realistic. Experience from other asset owners suggest 5 to 10 years to build up significant resources and expertise, depending on portfolio sophistication. We presented the partnership model as a stand-alone alternative, i.e. an end in itself. However, it could also be used as stepping stone further development of asset ownership at later stage. For example, moving to direct fund and then co-investment in private markets builds experience for later direct investment.

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- H1. "Trends in the Defined Contribution trust-based pensions market" DWP (2023).
- H2. A cost penalty is a way of constraining the allocation to more expensive assets, but without a hard limit. It requires expensive assets to have a higher net return to justify a given allocation. In general, cost budgeting involves assessing where best to spend money on internal and external services, i.e. where is the best value for money.



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APPENDIX A

Asset ownership models: Details

APPENDIX B

Section A (Extended Version)

APPENDIX C

Section D (Extended Version)



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Asset ownership models: Details

Model	Dynamic / Flexible asset allocation ¹	Portfolio construction	Manager evaluation		Investment evaluation and selection carried out internally for			
			Internal mgmt. Oversight	External manager IDD / ODD	Public assets (stocks) and strategies	Alternative / Private assets: Level of investment	Private assets: Specific deal activities	Opp. / Niche ideas ⁹
L1: Outsourced/ delegated	None	None / consultant advice	None	None / consultant advice	Benchmark index selection, with advice	None	None	None
L2: Advisor / Allocator	Limited DAA	Yes	Low	Significant (specialist mandates)	None or smart beta / factor strategies	FoFs and Funds ⁴	None	None
L3a: Partnership Allocator / Investor	DAA	Yes	Low / Moderate	Moderate (broad multi-asset + some specialist mandates)	Smart beta / factor strategies, custom index development	Funds ⁴ , Co-invests ⁵	Approval ⁸	Approval
L3: Allocator / Investor	DAA	Yes	Moderate	Significant (specialist mandates)	Smart beta / factor strategies, custom index development Limited stock selection ²	Funds ⁴ , Co-invests ⁵	Approval ⁸	Approval
L4: Investment Enterprise	DAA	Yes	Extensive	Moderate (some specialist mandates)	Smart beta / factor strategies, custom index development. Stock selection across most asset classes ³	Funds ² , Co-invests ⁵ , direct investments ⁶ , L-S strategies ⁷	Sourcing, Underwriting, Approval ⁸	Sourcing, Underwriting, Approval

For illustrative purposes only. 1. Depends on portfolio complexity. Limited means modest deviation from SAA in market dislocations. DAA could be part of TPA, which blurs the lines between the traditional separation of strategic and dynamic asset allocation. 2. E.g. in domestic equities and bonds. 3. May exclude more complex asset such as ABS. 4. Private: Evaluation of GP for LP investment. GP to make case for underlying investments. Hedge Funds: Evaluation of specific hedge fund (single or multiple strategies). Manager to make case for underlying strategies. 5. Private: Deal sourcing by GP with investment underwriting, but asset owner needs to review/approve independently. Hedge Funds: e.g. set of trades to exploit specific macro situation. HF manager to evaluate and asset owner to approve. 6. Private deal sourcing, full underwriting and approval by asset owner. 7. Potentially internal team may manage some more straightforward hedge fund strategies, e.g. long-short equity or trend following. 8. Sourcing involves finding new investment opportunities (specific companies/projects) and requires access to private networks etc. Underwriting is the full due diligence of a specific investment proposition, e.g. business case, cashflows etc. Approval relates to a review of a GP investment proposition, e.g. for a co-investment. 9. Typically, assets that do not fit easily within traditional categories (e.g. Reinsurance) or strategies that may be time limited.



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Model	Risk monitoring and exposure management					
	Risk monitoring	Exposure management	Direct asset ownership	Trade execution and settlement	Derivatives execution / management	Internal management of credit / borrowing
L1: Outsourced/ delegated	Fiduciary / consultant reports	None (maybe used by fiduciary manager)	None (pooled by manager or fiduciary)	None (managers execute trades)	None	None
L2: Advisor / Allocator	Quant (SD, VaR etc. returns based)	None or specialist overlay manager (e.g. FX)	None or segregated accounts (e.g. in public markets)	None (managers execute trades)	Within individual mandate sleeves only	None
L3a: Partnership Allocator / Investor	Quant (returns+ holdings), stress and scenario tests. Or as per TPA	Specialist overlay manager, in-house monitoring. Directed trade capability	Largely use segregated accounts	None, but can use partnership specialists to execute efficiently ¹	Combination of within individual sleeves and use of outsourced specialist	May use
L3: Allocator / Investor	Quant (returns + holdings), stress and scenario tests. Or as per TPA	Specialist overlay manager, or internal. Directed trade capability	Largely use segregated accounts	Internal for limited assets (otherwise external managers)	Combination of internally or use specialist	May use
L4: Investment Enterprise	Comprehensive and consistent, multi-dimensional quant and qual	Comprehensive beta overlay internally managed	Largely use segregated accounts	Internal for most assets (except funds and Co-invests)	Internal	May use

For illustrative purposes only.
1. One approach is to construct custom indices and delegate trading to a specialist indexation manager.

Model	Liquidity and cash management / Treasury	Direct operational activities	Systems (ops) ¹	Specialist providers
L1: Outsourced/ delegated	None / minimal	None	None	None
L2: Advisor / Allocator	Cashflow forecasting, cash sweep, enhanced cash	None or oversight / management of custody, admin, etc.	Analytics ² , data [and accounting] ³	Analytic, data systems, [ESG / voting, custodian, valuation agent, administrator, transfer agent, audit, legal] ³
L3a: Partnership Allocator / Investor	Cashflow forecasting, cash sweep, enhanced cash, counterparty management, equitisation, etc.	Oversight / management of custody, admin, etc.	Analytics, data and accounting	Indexation provider / manager. Analytics, data systems, ESG / voting, custodian, valuation agent, administrator, transfer agent, audit, legal
L3: Allocator / Investor	Cashflow forecasting, cash sweep, enhanced cash, counterparty management, equitisation, etc.	Oversight / management of custody, admin, etc.	Analytics, data, accounting, trading / settlement	Analytic, data, trade systems, ESG / voting, custodian, valuation agent, administrator, transfer agent, audit, legal
L4: Investment Enterprise	Cashflow forecasting, cash sweep, enhanced cash, counterparty management, equitisation, etc.	Oversight / management of custody, admin, etc.	Analytics, data, accounting, trading / settlement	Analytic, data. Trade systems, ESG / voting, custodian, valuation agent, administrator, transfer agent, audit, legal

For illustrative purposes only.
1. Other than general IT. 2. Performance and risk. 3. If segregated.

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Drivers for change in the UK investment landscape



Key takeaways

- There is a push for consolidation and scale.
- Private market investment is encouraged to support growth.
- DC pension funds are a particular focus.



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This section examines key drivers towards greater asset ownership. We mainly focus on **UK pensions** as the largest institutional investment sector, although many of the themes apply elsewhere.

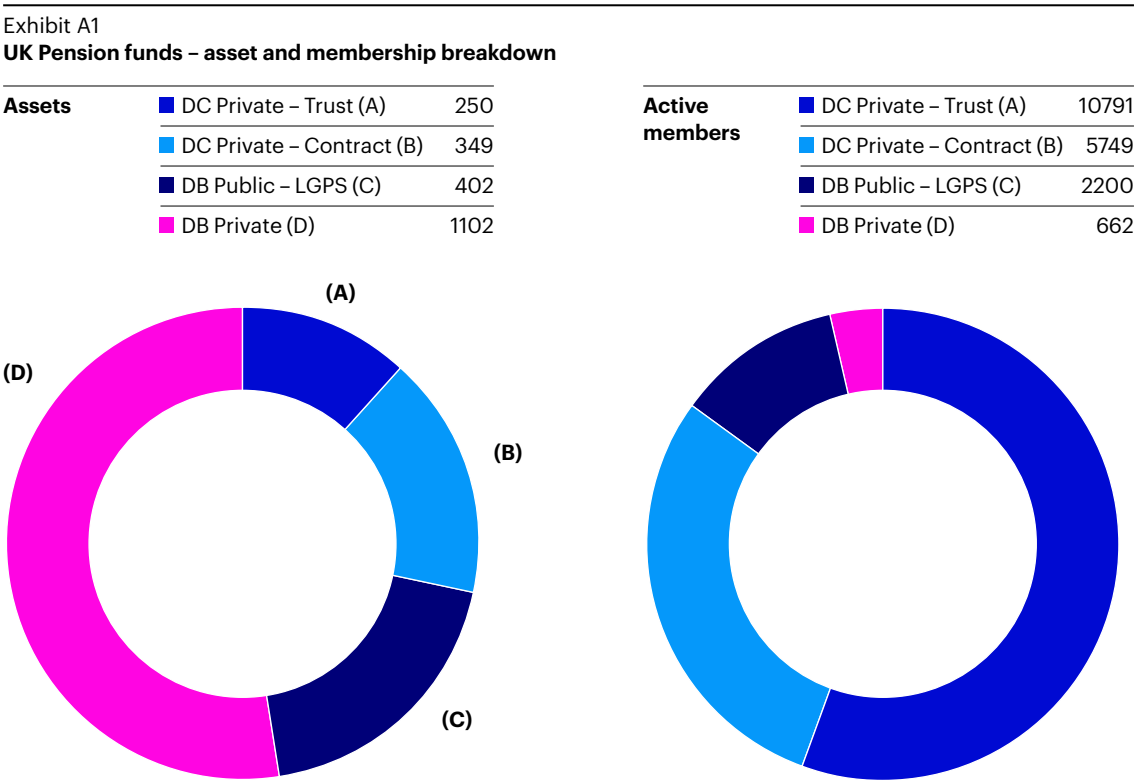
The UK funded pensions system is one of the largest in the world, with around £2.3 trillion in assets – equivalent to roughly 75% of GDP. This is comparable to pension assets in Canada and Australia, at around £1.8 trillion and £2.3 trillion, respectively^{A1}. The UK Government has placed increasing emphasis on efficiency, value for money, and support for its domestic growth agenda. These priorities are now reflected in the landmark Pension Schemes Act 2026.

A fragmented UK pensions landscape

Exhibit A1 summarises UK workplace pension fund assets and active membership.

Private sector DB pension schemes still account for the largest share of assets, at around £1.2 trillion. However, most schemes are now closed to new members and active membership is limited. Improved funding levels have also enabled many schemes to de-risk substantially, with around 70% of assets allocated to fixed income^{A2}. The sector is fragmented, with roughly 5,000 schemes, although there are some larger exceptions. It is still unclear how many schemes will remain in operation over the longer term.

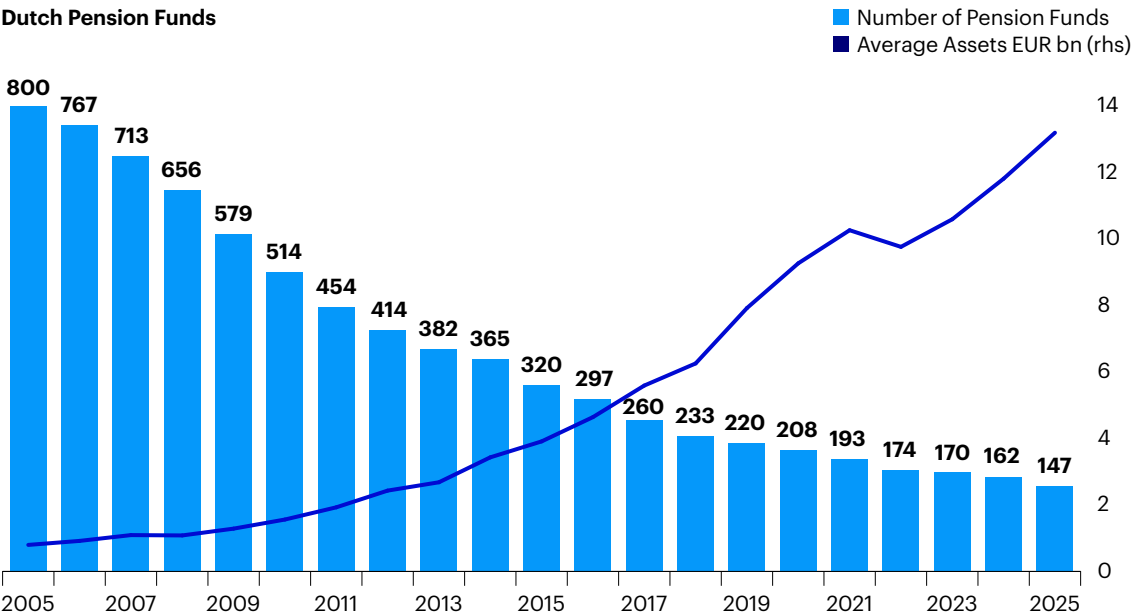
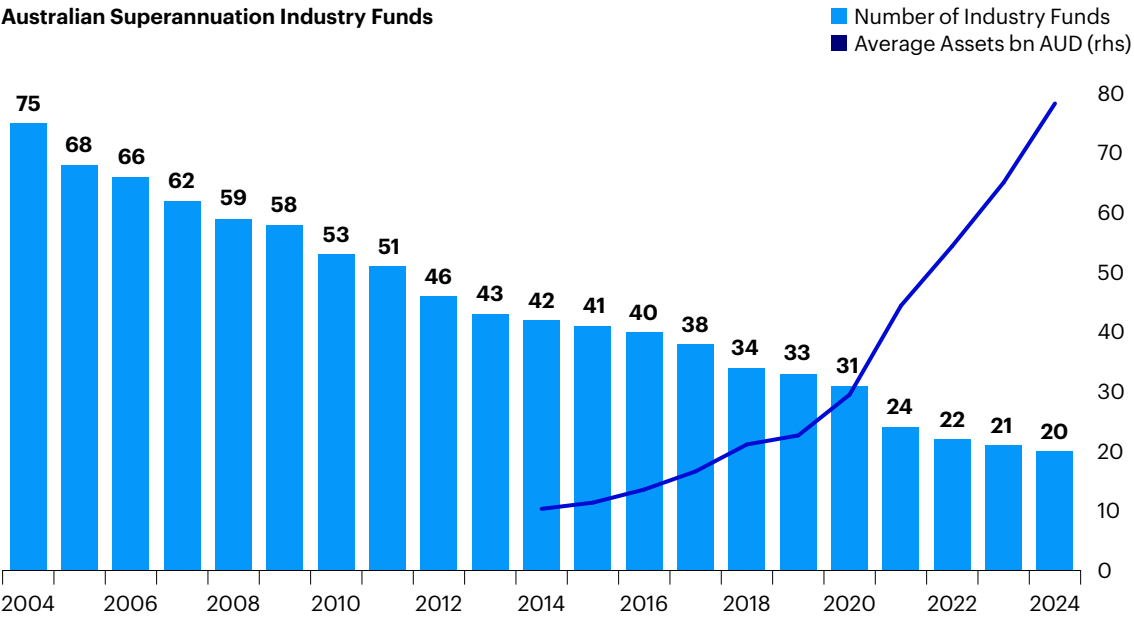
- The two main sectors open to new members are the defined benefit Local Government Pension Schemes (LGPSs) and private sector DC schemes – the two main legal forms being trust and contract-based schemes:
- DB public schemes – LGPS.** There are around 86 LGPS funds with assets of around £400 billion. They have been encouraged – and will be required – to combine assets into a few larger asset ‘pools’^{A3}.
 - DC private sector schemes.** In total, DC private sector assets are around £600 billion in assets. Trust based schemes hold assets of around £250 billion, the majority of which are held in multi-employer Master Trusts^{A4}. Master Trusts – a relatively new sector – are growing rapidly and expected to double in size over the next five years. Contract based schemes hold around £350 billion in assets.



Source: The Pensions Regulator, The Pensions Policy Institute, 2025.



Exhibit A2
Consolidation is a common theme across pension systems globally



Source: Australia: APRA Data. The Netherlands: DNB data.

Scaling up through consolidation

- There is a global trend of assets consolidating into fewer, larger funds – see **Exhibit A2** as examples. A paper by PGIM suggests three main reasons^{A5}:
- Economies of scale.** Larger funds can spread fixed costs over a broader asset base, negotiate better terms with external managers and service providers, and invest across a wider range of asset classes. In principle, all three should support better member outcomes.
 - Regulatory pressure.** Rising compliance and reporting costs encourage smaller or weaker schemes to merge, exit, or improve governance and investment processes.
 - Political pressure.** Governments often find it easier to influence a smaller number of large institutions than a fragmented market. That can include expectations that pension funds help support domestic or regional investment priorities.
- Despite similar total pension fund assets to Canada and Australia, UK ownership is more fragmented. **Exhibit A3** shows the top 8 funds in the three countries, broken down (for the UK) into sectors. As can be seen only a few UK funds have more assets than the smallest of those in the other two countries. Market fragmentation is also evident in the industry representation of these funds. The top 8 UK funds (combining the sectors) represent around 20% of total assets whereas for Canada the figure is nearer 70%.

Exhibit A3
UK institutional assets are more fragmented than leading countries (assets £bn)

Rank	Maple 8 (A)	Australian Super (B)	UK DB Public - LGPS (C)	UK DB Private (D)	UK DC Private Master Trusts (E)
1	417	213	108	73	53
2	276	188	92	34	40
3	160	108	62	33	40
4	157	86	55	32	29
5	149	73	49	19	18
6	96	58	25	19	14
7	77	55	18	4	
8	70	54	11	10	

Chart shows the top 8 funds by asset in each country / sector.
Sources: Canada: various report and accounts, Australia's largest super funds, Master Trust league table H1 2026. Data on individual DC Trusts and contract-based schemes not available.



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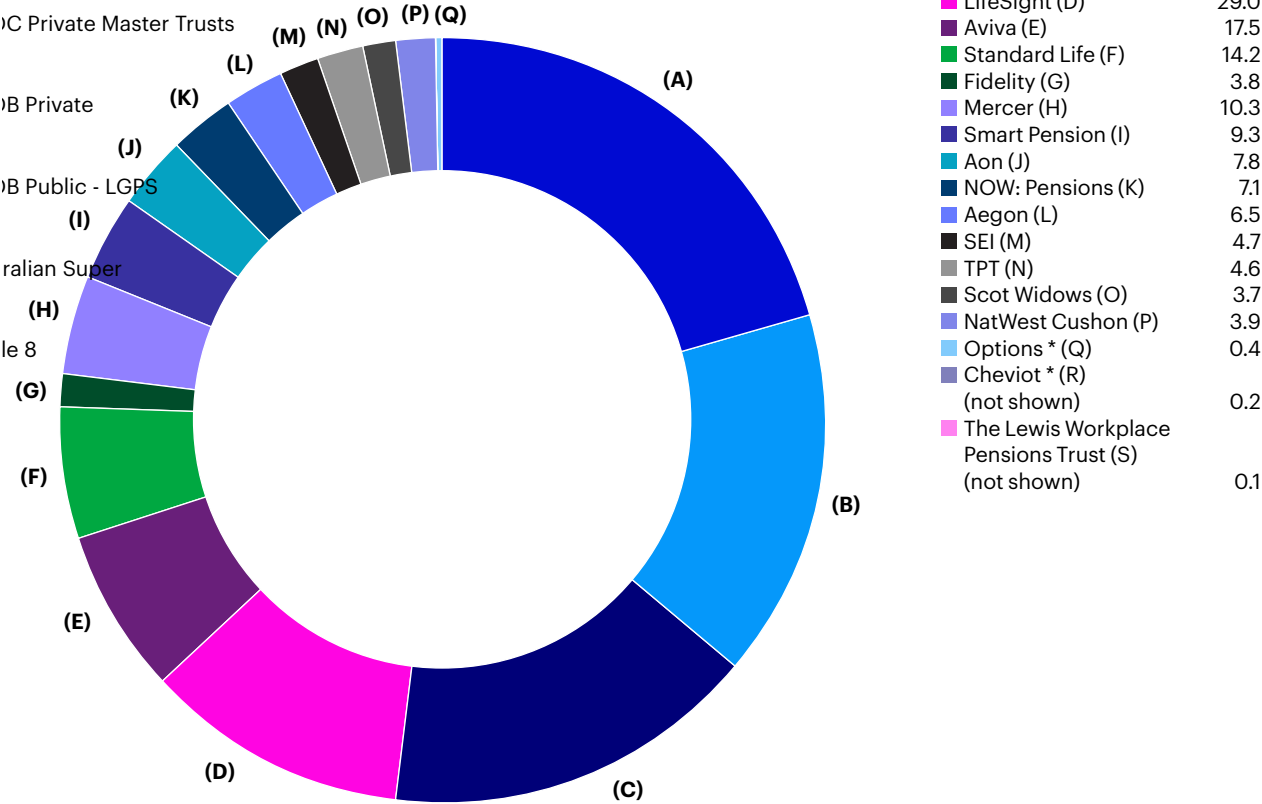
There are several drivers for greater consolidation in the UK, largely government initiatives, as discussed below.

DC schemes. From 2030 Master Trusts and certain contract-based schemes^{A6} will be expected to hold at least £25 billion in their main default fund, with some flexibility for sub-scale schemes to reach that threshold by 2035. **Exhibit A4** shows the current Master Trust landscape, with total assets under management for each. As can be seen, three Master Trusts currently exceed £25 billion. Funds are expected to form a plan to reach the 2030 target, whether through organic growth or consolidation.

LGPS. Local authority schemes are now required to invest through one of six approved pools, down from eight. Previously, funds operated on a comply-or-explain basis and had consolidated only gradually, with most pooling focused on listed assets. Post consolidation, the smallest pool will be around £25 billion and the largest above £100 billion.

Private sector DB schemes. A pension consolidation ‘superfund’ has been available for a few years, but uptake has been slow. The Pensions Schemes Act provides greater clarity on the statutory framework for these multi-employer vehicles. To make a real difference, a significant number of schemes will need to participate.

Exhibit A4
UK DC Master Trust concentration



Source: Master Trust league table H1 2026.



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Addressing the growth agenda with private market capital

A key aim of the UK government’s growth agenda is to channel more long-term private capital into the domestic economy. **Exhibit A5** shows allocations to private markets and other alternative investments for some major pension markets. As can be seen, UK institutions typically have lower allocations than many other countries.

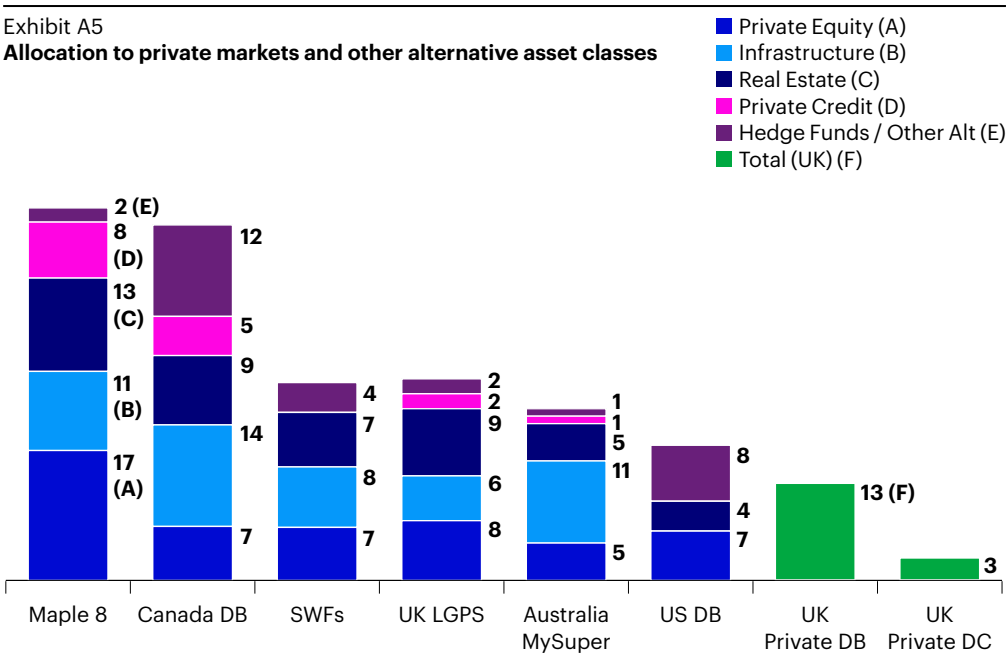
The Mansion House Accord, signed in May 2025, is a voluntary agreement^{A7} between the Government and major DC pension providers, primarily Master Trusts. With some £250 billion of assets, the signatories have agreed to the ambition of at least a 10% allocation to private markets by 2030, with at least half directed to the UK. The expectation is for £25 billion or more to flow to UK businesses. The official statement also identified some ‘critical enablers’ including:

- A stronger pipeline of UK investment opportunities, which the Government has agreed to help facilitate;
- A shift from cost to value across the market, including intermediaries, supported by successful implementation of the Value for Money framework due in 2028.

Master Trusts have largely competed on fees, often with small margins to win or lose business. Not surprisingly, investment strategies have typically focused on low-cost passive portfolios, primarily listed equities and bonds^{A8}. The Mansion House Accord and launch of a new pooled fund structure (the ‘LTAF’) has triggered significant ambition to invest in private markets, however. A survey by ISIO^{A9} covering 12 Master Trusts noted target allocations of between 5 and 25% to private markets for default funds. However, many funds are planning to retain a low-cost default option, with private markets included in a ‘premium’ version. Respondents were planning to adopt balanced allocations across the main categories: property, infrastructure and private equity, private credit and natural capital. It is early days however, with currently modest allocations to private markets in most cases (Nest has been a trailblazer).

UK Local Authority schemes have been investing in private assets for some time, with around a 25% allocation across private equity and credit, real estate and infrastructure^{A10}. This is comparable to Australian Super funds, but less than the Maple 8 and Canadian DB funds in general.

For private sector DB schemes, a more subtle effect may come from the ability to refund surplus to sponsoring employers. It could encourage some schemes to remain in run-off mode rather than moving to buy-out, while retaining at least some exposure to growth or private assets such as core income-generating infrastructure.



Source: PPI for the UK, WTW for US Fortune 1000 companies, ASFA for Australian Super Funds, PIAC for Canada, Hymans Robertson for Maple 8, Invesco for SWFs.

Other drivers for DC schemes: Value for Money, fund terms and post-retirement investing

Value for Money (VfM) regime

The VfM framework in place for contract-based schemes will be extended to Master Trusts. The framework requires outcomes to be assessed in three areas: investment performance; costs and charges; and service quality. Schemes will also need to explain what action they will take if results are poor. The VfM framework affects schemes in two ways:

- Shifting attention from headline cost to longer-term net value. That makes it easier to justify assets with higher upfront costs if they are expected to deliver better outcomes over time. In practice, that could support greater use of alternative and private market assets;
- Increasing pressure on weaker schemes. Poor performers may ultimately be expected to wind up or merge with better-run peers, reinforcing the broader trend towards consolidation.

Measuring VfM will not be straightforward, and there is scope for unintended consequences. A recent paper by the PPI notes that a similar initiative in Australia (the ‘Your Future, Your Super’ performance test) has led to herding as funds attempt to avoid failing the test. Even so, there is general acknowledgement that the time is right for the DC market to pivot from cost to value, which needs alignment to be instilled in the purchasing chain from employers to advisers and providers.

Fund terms and structures

Changes to fund terms and structures may also encourage DC schemes to invest in private markets:

- In 2023, regulations relaxed the 0.75% charge cap by allowing performance fees (carry) to be excluded, provided certain conditions are met. Performance fees are often used in private market investments;

- The Long-Term Asset Fund (LTAF), introduced in 2021, provides a regulated structure for holding illiquid assets and gives DC schemes a more practical route into private markets.

Post-retirement Investing

Since 2015 UK pension savers are no longer required to take a pension at retirement (via annuity purchase) and can instead take a lump sum or draw down from invested savings over time. Few savers have bought annuities since, and funds are building up for those approaching or in retirement. Managing investments in draw-down, which could add 10 to 20 years to investment horizons, will be a big issue for the industry over the next several years. Post-retirement investing comes with additional challenges but potentially allows for greater private market allocations given extended timeframes.



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A1. For the UK, ‘Pension scheme assets – how is asset allocation changing and why?’ Pensions Policy Institute PPI (2025). Excluding individual personal pensions and annuities and unfunded public sector schemes. With these included, total assets are around £3.2 trillion. For Canada: PIAC Asset Mix Report. For Australian Superannuation Schemes APRA Super Statistics.

A2. The Pensions Protection Fund Purple Book 2025.

A3. LGPS Pool Changes.

A4. Master Trust league table H1 2026.

A5. ‘The Scale Effect: How size shapes investment governance and allocation’ Jarvis 2024.

A6. Those that qualify for auto-enrolment.

A7. See Mansion House Accord and Pension Schemes back British growth. The Accord applies to the assets of the main default Fund. The Pensions Schemes Act 2026 contains a backstop provision for the government to mandate change, albeit with some protection for schemes.

A8. ‘Master Trusts Unpacked’ LCP (2026). Page 4 of the report notes that some default funds include an allocation to property and infrastructure.

A9. ‘Illiquid Assets: Further insights in the DC Master Trust market’ Isio (2025).

A10. ‘The Canadian Model’ Hymans Robertson 2024.



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Investing for UK growth



Key takeaways

- The evidence on a UK growth or investment “puzzle” is mixed.
- There are still investment gaps that private capital could help fill.
- Turning private market intentions into economic investment is difficult.
- Recent initiatives should help.



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The UK Government sees investment in UK businesses as central to its growth agenda and is looking to pension funds for support. This section considers UK growth, economic investment and the role private markets could play.

The UK productivity “puzzle” and possible investment link

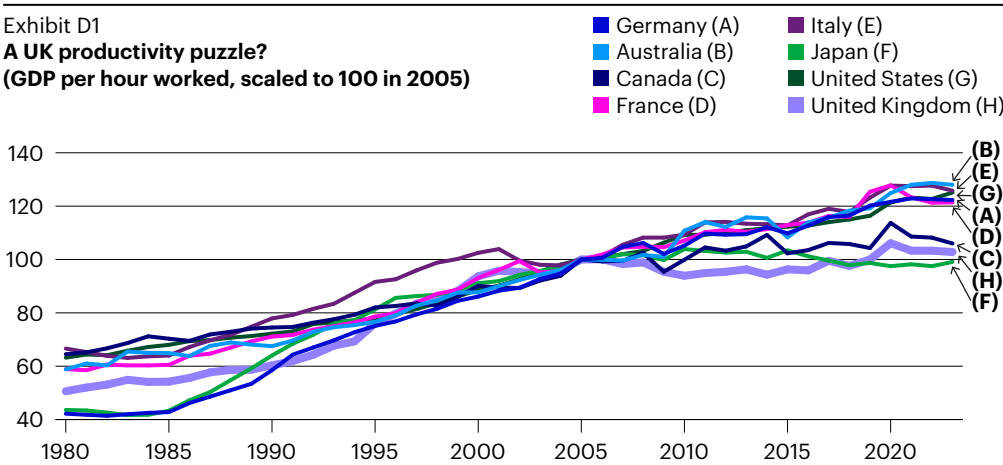
UK productivity growth has slowed since the mid-2000’s. The slowdown is often seen as a UK-only problem and dubbed the “productivity puzzle”. **Exhibit D1** shows productivity across a range of developed economies from 1980 to 2023, with a UK slowdown evident since the mid-2000’s. However, growth has slowed across most countries, and the UK is not the only one to observe a more material impact. Moreover, UK growth has picked up since around 2015 and has since been more in line with the (slower) average.

The reasons for the slowdown are widely debated. A recent study^{D1} reviewed the existing literature and interviewed leading academic experts. It identified investment (private and public), infrastructure, human capital stock, and management quality as the most important factors contributing to UK productivity growth, or lack thereof. Other studies emphasise productive efficiency as the cause rather than investment per se. They note that low UK investment is a much longer-term phenomenon, and that the standard measure of investment excludes many intangible items^{D2} (see below).

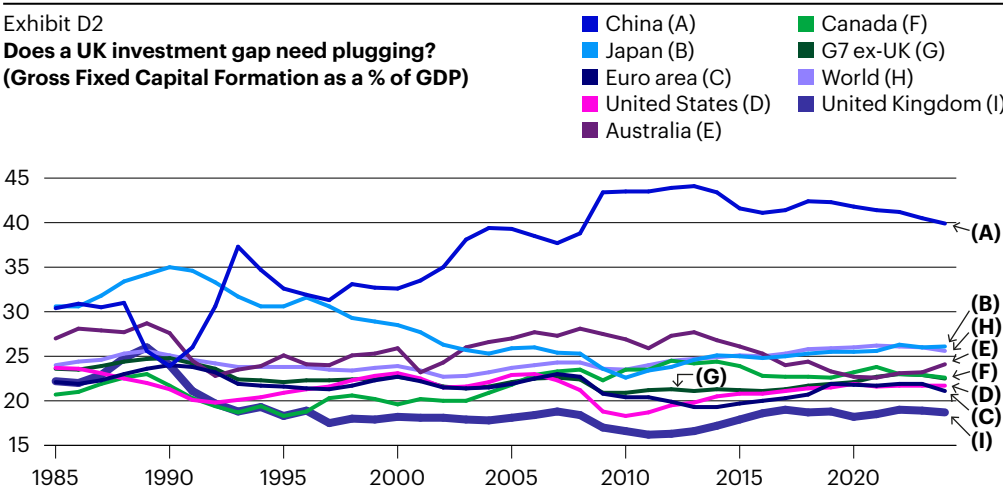
Exhibit D2 shows investment (as per national accounting standards^{D2}) as a percentage of GDP for major economies over time. As well as slow decline for the UK and other G7 countries generally, the UK has suffered from persistent under-investment relative to peers. For example, the UK has shown an investment shortfall of around 3.5% of GDP (19% vs. 22.5%) versus other G7 economies for most of the last 35 years. There does not appear to be a consensus on the reasons for this lower level of investment. Causes hypothesised include policy uncertainty, inadequate infrastructure and human capital, and poor management.

However, national accounting standards exclude many intangible investments. Adjusting for this, research^{D3} finds similar UK investment levels to the US and key European economies. This is consistent with a less (physical) capital intensive UK economy. Moreover, the study finds UK returns on investment to be as least as good as other countries, both including and excluding intangibles, which makes UK investment attractive rather than acting as a deterrent.

Despite the nuanced discussion above, there is general perception of under-investment in the UK. For example, UK early-stage investment (venture capital) is low as a proportion of total private funding. In real assets the UK Government’s ‘National Infrastructure and Construction Pipeline’ has identified investment requirements of around £770 billion over 10 years. Similarly, the Government has set a target of 1.5 million new homes by 2029.



Source: Our World in Data, Penn World Table.



Source: World Bank.



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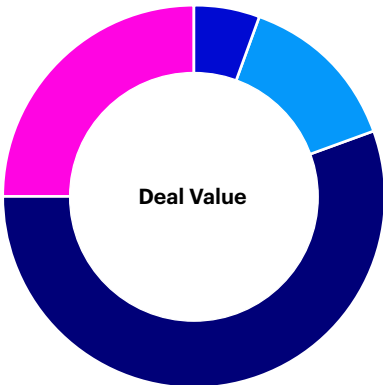
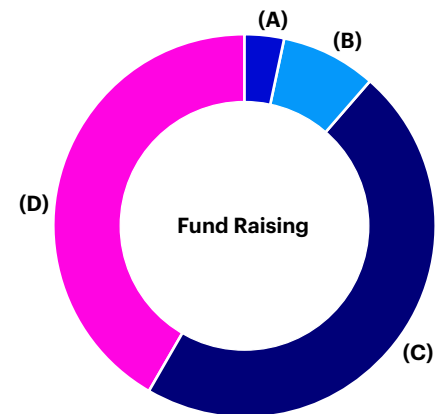
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Exhibit D3
The UK attracts a modest percentage of global private equity and venture capital activity

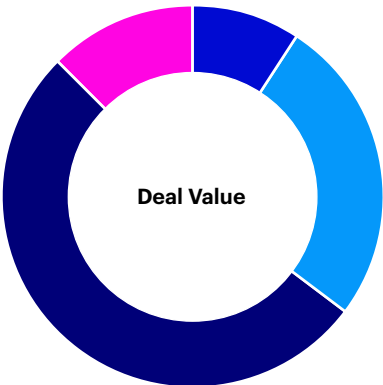
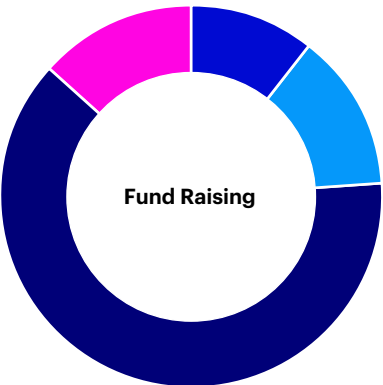
Venture Capital

	Fund Raising	Deal Value
UK (A)	7	20
Europe ex-UK (B)	17	49
US (C)	99	195
Other (D)	87	88



Private Equity

	Fund Raising	Deal Value
UK (A)	46	131
Europe ex-UK (B)	58	369
US (C)	271	739
Other (D)	57	173



Source: pitchbook.com.

Investing for economic growth

Converting private market intentions into tangible UK economic benefits is not straightforward.

Investment in the economic sense involves building roads, factories and machinery and investing in research, training and development, systems and processes, etc. Such investment increases human and physical capital, with the aim of increasing productivity and ultimately real national income.

In contrast, investment in the portfolio sense usually means acquiring rights to future cashflows (rents, dividends, interest). Most of the time this involves a transfer of ownership of existing businesses and assets, whether in public or private markets. Whilst there are important liquidity benefits^{D4} from these transactions, they do not contribute to economic growth directly.

- We elaborate on the challenges below:
- UK vs. global private markets.** Most, if not all, UK institutional investors have a fiduciary duty to consider suitability (balance of risks, rewards and constraints) across a broad set of opportunities. The UK is a small proportion of global private markets, and a significant UK ‘tilt’ needs careful consideration, particularly if concentration is increased more than otherwise warranted.
 - In-the-ground investment.** To benefit the economy most directly, portfolio investment needs to align with economic investment, as discussed above.
 - Creating new supply from new demand.** New investment is not economically effective if it simply crowds out existing capital. Instead, the supply of investment opportunities needs to increase. New capital should help to stimulate supply, particularly if it reduces financing costs^{D5}. However, for real assets at least, supply is partly constrained by bottlenecks in the planning system rather than lack of demand^{D6}.
 - Time.** It is likely to take institutional investors many years to build significant private market portfolios. Given the above, observing economic benefits will take longer still.

For the purposes of this paper, we refer to the above as economic capital. This includes venture capital and later stage growth / expansion capital (sometimes categorised within private equity). In addition, it includes development capital for infrastructure, real estate and other real assets, i.e. capital to build new assets. We consider the impact of economic capital on GDP in Section E.



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UK private market investment is modest in a global context

Global private market assets are huge in monetary terms. Whilst estimates vary, one source^{D7} puts total private assets at around £11 trillion, some 6% of global investible markets.

UK private market assets are estimated to be around £1 trillion, some 10% of the global total^{D8}. The UK's private market share does not appear obviously out of line given its share of global GDP and public market assets. Even so, there is a case for a larger presence given the UK's long-standing role as a global financial centre and strong record of innovation.

Exhibit D3 puts the UK into an international perspective, showing a breakdown of funds raised and deal value for both private equity (PE) and venture capital (VC). Whilst the UK receives a significant share of the European total (around 40% by funds raised), investment is relatively low in a global context, particularly for VC. For example, the UK's share of global fund-raising activity was 3% for VC and 10% for PE^{D8}. UK Private Capital also note that US companies raise approximately twice as much as UK companies on average across the different VC funding rounds^{D9}.

One perceived gap in VC funding is limited later stage growth / expansion capital. UK Private Capital notes a larger gap in funding (US vs. UK companies) for later stage capital versus earlier stage financing. A consequence is that a high and increasing proportion of capital is raised from overseas investors, with the concern that assets, employees and intellectual property are transferred abroad. For example, UK Private Capital notes that in 87% of £20 – £50 million deals in 2023 involved overseas investors, compared to 80% over the previous five years. For deals over £50 million, the figure was 94% and 90%, respectively.

However there is not universal agreement on the existence of a VC funding gap, with Vencap pushing back on this idea, citing the UK as the third largest global market for VC globally after the US and China with a proportion of investments in line with its GDP. Vencap believe the problem lies not in a funding gap but around exits^{D10}.

For infrastructure, the ONS estimates UK private sector investment of £15 billion to £20 billion a year^{D11}. An estimated £345 billion of private capital may be needed to supplement public funding for the National Infrastructure and Construction Pipeline^{D12}. This suggests a need for additional private investment of £15 to £20 billion a year, i.e. around double current levels.

Initiatives to support UK private market investment are underway

Several initiatives have been launched over the last few years to help promote UK private market access and investment:

- The Private Intermittent Securities and Capital Exchange System (PISCES) was established in 2025 to allow trading of private companies, potentially making private equity more accessible and providing an exit route for investors. The first operators have been approved, including the London Stock Exchange.
- The British Growth Partnership was established by the British Business Bank in 2024. It is a pooled vehicle co-investing alongside the BBB's network of fund managers into UK-based venture capital and growth equity. From initial seeding in 2025, the aim for it to grow into a multi-billion investment. The Bank also shares information on its third-party private fund investments that are still open to other investors (via 'Venture Link').
- The UK government launched the National Wealth Fund (NWF) in 2024 with £7 billion in capital. The NWF aims to catalyse private co-investment from institutional investors into strategic UK sectors such as clean energy, transport, advanced manufacturing, and digital infrastructure.



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D1. 'The UK Productivity Puzzle: A Survey of the Literature and Expert Views, Williams et al 2024.

D2. Investment is 'Gross Fixed Capital Formation, which includes physical assets, and more recently less tangible assets such as software and R&D.

D3. 'The UK productivity "Puzzle" in an International Comparative Perspective' Fernald, Inklaar 2024. Productive efficiency is more formally referred to as Total Factor productivity. See Figure 4 in paper for investment with and without adjustments for intangible assets.

D4. Buying more mature businesses/ assets provides an exit strategy for entrepreneurs and early-stage investors. It allows capital to be recycled back into earlier stage projects, for example buying operational property or infrastructure from a developer frees capital for new projects.

D5. With more money competing for investments (i.e. more demand), the cost of capital should fall. The flip side for investors is a reduction in future returns. A balancing force is the return needed to compensate investors for risks and illiquidity.

D6. For example, see 'Places and Purpose: The second report of the Purposeful Finance Commission' 2024.

D7. See Ocorian Global Asset Monitor 2025.

D8. See <http://pitchbook.com/reports> for various reports on private equity and venture capital. Data excludes evergreen funds. UK share of European and Global total for deal value and fund raising is the 5-year average to 2025.

D9. See UK Private Capital press release and Venture Capital in the UK (Nov 2024).

D10. The Mansion House Reforms – What pension funds need to know before building a Venture Capital investment programme – VenCap.

D11. 'Infrastructure in the UK, investment and net stocks: July 2025' Office for National Statistics.

D12. 'Bridging the infrastructure funding gap' TheCityUK 2026.



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Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

Important information

This marketing communication is intended only for Professional Clients in UK and Ireland only.

Data as at 30 September 2026, unless otherwise stated. Views and opinions are based on current market conditions and are subject to change.

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