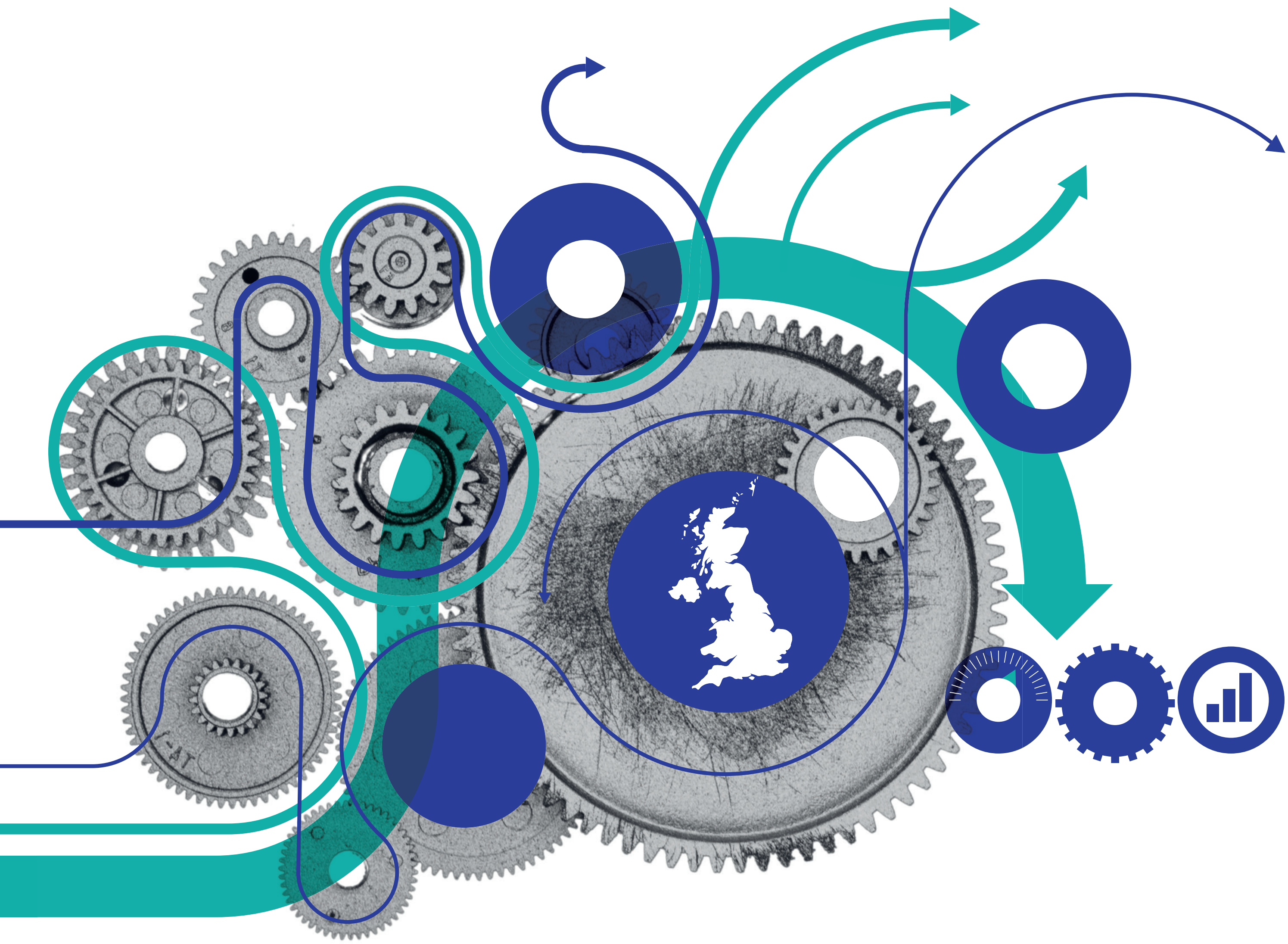
Reviving UK Investment Flows

A Systems Approach to Productivity and Growth



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As ever, we acknowledge all faults as the authors' own.

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Executive Summary

The UK's Growth Problem needs a Systems Solution

The new government's desire to place UK sustainable economic growth at the top of its agenda, and to view UK savings and investment as a key driver of this growth, is very welcome. This recognises the investment system's central role in driving sustainable growth and higher-quality retirements, and in improving intergenerational fairness.

Where previous governments have tended to view the investment system either as a source of taxation or systemic risk, the new government has the opportunity to recognise its fundamental function as a critical intermediator, channelling money from UK savers and investors both to UK firms in need of growth capital and toward the UK's wider decabonisation agenda. Such a view correctly locates the investment system at the centre of a what could be a virtuous spiral for the UK economy – with higher rates of investment driving a more productive sustainable economy, in turn driving higher rates of investment.

However, for the investment system to fulfil this potential it needs reform.

New Capital Consensus (NCC) comprises a coalition of organisations who have come together to create an apolitical, not-for-profit, research project and a policy discussion forum for commercial entities, think-tanks, policymakers and regulators. Our shared purpose is to identify and promote stakeholder buy-in to the reforms needed to foster the strongest links between the UK's savings and retirement aspirations and the sustainable growth aspirations that drive long-term prosperity.

Understanding the system's current capital stocks (their size and location) and flows (together with the interconnected set of forces that shape system flow) is key to the development of effective policy solutions.[1]

Historically, the UK has led the way on innovative approaches to the financial system, its competitiveness and its regulation – often establishing global regulatory gold standards in the process.[2] But the UK's current regulatory architecture is complex, complicated and patchwork (as we describe in Section 1). This means that however well-intentioned individual policy interventions may have been over time, in aggregate the UK regulatory system is now delivering unintended and unwelcome consequences for savings and investment in the UK.

Unveiling the Reality of the UK Investment System

Based on approximately 45 'Chatham House Rule' interviews with participants across the system NCC has generated a picture of the UK investment system as it is in reality ('warts and all'), rather than as it should operate according to Efficient Market Theory or other academic / 'rational' models of economic and human behaviour.

In terms of the systems approach of our sub-title, while market participants and regulators continue to look to traditional financial economic theory for their models,[3] in reality, the UK investment system is a classic "complex adaptive system"[4] and like most systems (from corporations to ecosystems) is therefore not the product of conscious design – or rather, is the product of nondesign.[5] The UK investment system has 'emerged' over time out of the networked actions of different and seemingly unrelated system actors, all of whose independent actions, logics and interests roll up into a systemic 'interdependence' whose whole is greater than the sum of its parts.[6] Each system actor, in turn, develops his own behaviours and establishes his own 'mindsets' by responding to incentives, and by learning from 'feedback loops' that either stabilise, dampen or amplify each element of his behaviour.[7]

The UK investment system has thus evolved rather than consciously developed, and continues to evolve from the myriad interdependent actions of otherwise independent participants – from employer-sponsors, pensioners and savers, through legislators, regulators and industry players to the press and other stakeholders.[8] And so a proper interrogation of the investment system must begin with these participants, their actions and behaviours, and their underlying drivers.[9]

This report sets out the results of qualitative analysis and the incentives, disincentives and mindsets that currently govern where and how private UK money gets invested, together with a set of draft policy recommendations for discussion.

Our ultimate objective is to derive a set of firm policy reforms, with wide industry acceptance, that deliver on UK political and social aspirations but do so by working with the grain of the investment system as it operates in often messy reality. This must start with savers as the primary focus; delivery of effective outcomes for them is crucial. But we must also recognise the other crucial role the UK investment system plays, acting as the 'heart' of the UK economy pumping capital to UK regions and sectors.

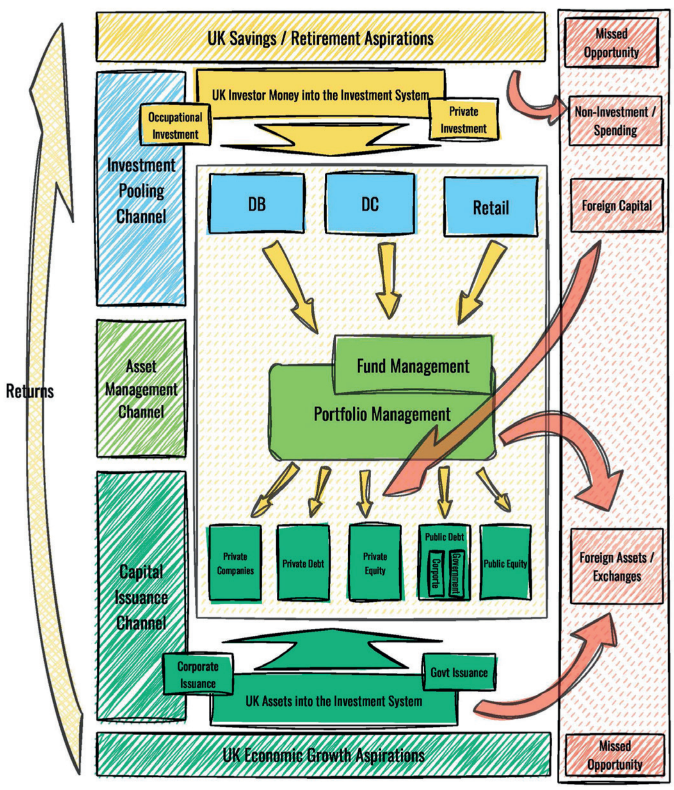
We have consciously focused on the investment system as a sub-set of the wider financial system which also includes banking and general insurance. It is important to appreciate that the bulk of investment within the system relates to retirement saving – that is, pooling within Defined Benefit (DB) and Defined Contribution (DC) schemes and life insurance companies. While mobilising Retail / Private investment pools into more productive investment remains a key policy target, we think the retail reform agenda needs a much more ambitious and considered approach. A root-and-branch review needs to begin with the problem of the UK's poor 'equity culture' and move on to consider: consumer preference for and facility with investment platforms[10], digital customer-journeying and fintech tools; advice / guidance reform fit for a digitally enabling world[11]; product design and availability; and tax incentivisation / wrapping (including ISA, VCT and EIS wrappers both individually and as a 'set').[12]

Although ours is conceptually a 'closed system' (focusing on UK investment flow into UK growth opportunities) we are also mindful of foreign direct investment (FDI) into the UK economy. We believe that boosting the participation of UK investment in the UK economy will pave the way for higher levels of 'crowding in' of both foreign and domestic investment by giving more credence to the UK as an investment destination.[13]

Otherwise over-reliance on international capital significantly reduces the UK's own sovereign resilience, and removes from the country the many social and economic benefits of business ownership within a domestic financial framework.[14] As Nassim Nicholas Taleb notes, networked systems naturally benefit from a host of 'anti-fragile' (resilient) characteristics – from the ability to spread shocks across multiple actors to the Schumpeterian 'natural selection' of poorly managed / high risk institutions made safe by the availability of alternates within the market. And we support Taleb's conclusions that policymaking should shift its focus from predicting failures within systems (Taleb's own 'black swan events') to building systems that can adapt and recover quickly when failures occur.[15] Reform needs to re-orient the UK investment systems towards more socially productive goals, but it needs to retain the system's naturally 'anti-fragile' characteristics at the same time.

The UK Investment System

We present below our picture or map of the investment system as it currently operates – describing both the 'stocks' of capital available to the system and the nature of the 'flow' of capital through the system. It identifies three key operations or channels within the UK investment system. The following diagram may look complicated but over-simplification has itself contributed to the system's current challenges[16]:



The Investment Pooling Channel – bringing savers' money into the system in the first instance. This channel itself falls into two sub-channels: the Occupational Investment Channel (pooling money via DB and DC workplace investment schemes); and the Private Investment Channel (pooling money via non-workplace schemes such as Personal Pensions, SIPPS, ISAs and General Investment Accounts)

The Asset Management Channel – allocating available money to investment instruments or companies either via segregated portfolio management and/or fund management; and

The Capital Issuance Channel – bringing investment instruments or companies into the system in the first instance via the public and private capital markets.

Insight from System Participants

The complete range of systemic issues identified through approximately 45 interviews with participants across the system is covered in the body of the report. Our key findings are as follows:

- **Frustration over current operations**. Almost without exception, interviewees described with frustration how they were obliged to conduct their business in ways which, whilst profitable for their shareholders, are sub-optimal for their clients or clients of their clients. Many interviewees felt powerless to bring about beneficial change and welcomed the interview as an opportunity to share suggestions which could be of benefit to all.
- **Inadequate or sub-optimal outcomes for savers**. Much of this sprung from sub-optimal risk-bearing and lack of long-termism within the system. The inappropriateness of regulatory, accounting and actuarial risk measurement was a constant refrain. There was a general recognition of the system's failure to support the UK economy, with ambiguity over whether current investment approaches are genuinely in savers' wider interests.
- **Constraints and lack of agency in investment mandates**. Much frustration was also derived from channel interfaces. For example, Fund and Portfolio Managers were frustrated by the lack of long-termism and 'strategy' in the investment mandates provided to them by Asset Owners, who in turn struggled with regulatory and other constraints around the construction of strategic asset allocation. The lack of scale of many Asset Owners has led to clients with insufficient agency, skills and knowledge, so we were told.
- **Liquidity overemphasis in system behaviors**. Whilst regulation, accounting and tax were identified as powerful drivers of behaviour, risk management, the role of employers and market practices were also identified as key, with the latter playing an important part in the system's over-emphasis on liquidity and daily pricing.
- **Absent incentives to generate returns for savers**. Of equal importance, we were told, was the lack of incentives to generate returns for savers, with 'low cost' and 'safetyism' dominating.[17] The incentives to close industry gaps in service (for example, affordable advice/guidance, deccumulation solutions, etc.) are weak, as are those required to provide Private Equity transparency. The system is lacking sufficient incentives to support innovation and creativity, primary requirements for growth.

The System's Ingrained Dynamics

Taken together, we heard that market structures, incentives and feedback loops (the circular cause-and-effect relationships that either stabilise the system or amplify elements of its behaviour) make the UK investment system what it currently is. They are also the drivers of the investment system's nondesign insofar that it has evolved in a manner that is fit for the system itself rather than one that is fit for users of the system and wider social purpose. For example:

- **DB accounting standards have led to short-termism** in DB scheme investment mentality. Artificial volatility from liability measurement has pushed assets towards bond investments and leveraged LDI strategies. This has been reinforced by both regulation and accounting creating herding behaviours, both obscuring and creating systemic risks, which will only increase with the current rush to buy-out.

- **An over-focus on cost in workplace DC (partly driven by employer and saver preferences) and in Retail/Private investment has led to both a passive mindset and helped to drive consolidation within the asset management industry.** The markets and regulatory focus on 'low cost' has undermined the proper emphasis on performance and outcomes. Global approaches to asset allocation, adopted by larger Asset Managers, have reduced investment in the UK economy, in turn diminishing the UK share in global indices. Industry approaches to 'relative' benchmarking and diversification-seeking further drive the adoption of global indices in setting pension scheme allocation, which reduces investment into the UK. Because global indices are dominated by US companies (and increasingly by US tech companies) UK investment is effectively supporting the US tech / growth agenda rather than the same within the UK.
- **A system-wide focus on short-term volatility over long-term risks has contributed to risk-reward aversion among a wide range of stakeholders** which in conjunction with regulatory safetyism has created a market driven to minimise risk rather than to find the appropriate trade-off between risk and reward/return.

These feedback-loops operate to amplify and lock-in behaviours and are therefore key points of political intervention within the system – or 'leverage points' as Systems Theory describes.[18]

Focus areas for reform

Consolidation of the pension fund industry is needed to reduce herding by creating asset owners of substance. The strength of the Canadian investment system derives from having five pension funds each with over £100 billion of assets and three of the top 15 global life insurers (by market capitalisation). The weakness of the UK investment system derives from having none of either.

Low-cost, short-term, passive, secondary investment mindsets are promulgated through the construction of investment mandates. To counteract this, we need to re-incentivise return-seeking, to counteract the dynamics currently driving low-cost investment, and reduce short-termism by requiring investment mandates to reflect the duration of savers actual requirements for access to their investments; this latter requires reducing the incentives behind liquidity-seeking.

Achieving a better balance between risk and returns, requires revisiting risk measurement and the regulatory and accounting drivers that drive safetyism. Investment in UK primary investment requires new incentives.

Key Reform Recommendations

The new Government has got off to a good start with some long-term vision (GB Energy, a National Wealth Fund and a reinvigorated British Business Bank); the publication of an Industrial Strategy; a Global Investment Summit reaching out to the world's biggest investors; a Pensions Investment Review led by a Minister sitting across DWP and Treasury; and an Autumn Budget that looks likely to have a number of systemic effects on the DC Investment Pooling channel. Recent announcements on LGPS, DC consolidation and an ongoing focus on 'value for money' in DC are also vital steps in the right direction.

However, while this reform agenda is ambitious it does not primarily focus on the actual incentives, dynamics and practices that drive the system and that reform needs to address, if the UK is to rebuild a sustainable growth economy to the benefit of all. Against this background, NCC makes the following recommendations, while acknowledging that no single policy action will be sufficient or provide a 'silver bullet':

Targeted Interventions

- **Facilitate the consolidation of private DB pension schemes** – placing DB Superfunds on a statutory footing in the forthcoming Pension Schemes Bill, and permitting life insurers to set up Superfunds outside their Solvency II ring-fences - to sit alongside other existing and new providers of capital. 5000 sets of Trustees managing £1.2 trillion of assets is highly inefficient, leads to uniform investment strategies and industry herding, which the rush to buy-out will intensify. Superfunds will operate under pension scheme rather than Solvency II rules, effectively freeing up Superfunds with high-quality investment skills and resources (and pursuing a run-on strategy) to make primary investment and investment in illiquid assets. Life insurers are natural consolidators and will block the changes needed if not permitted to participate.
- **Remove the requirement for daily liquidity in the DC and Private / Retail Investment markets** – on the grounds that the benefits of daily dealing (immediate subscription / redemption) are increasingly outweighed by the cost that a daily liquidity mindset brings to asset allocation, and the inhibiting effect on primary investment in real assets.
- **Change the system risk culture by revisiting regulatory and industry risk measures to free up investment strategies and support institutional risk-sharing with clients** – beginning with the system's current unhealthy focus on volatility and liquidity risk at the expense of duration risk and risk to returns. DB schemes should be given greater investment flexibility and DC schemes should be encouraged to seek performance rather than low cost through the planned Value for Money regime and by updating the guidance to employers on the choice of a suitable DC default fund for their workplace scheme. Mechanisms also need to be introduced to support pensions schemes 'run-on' strategies – to extend investment durations and reduce unhealthy derisking. This has the potential to deliver a win-win-win for the UK: improved profits for businesses; improved products and services for consumers (as well as innovative solutions for the environment and society)[19]; and improved investment returns for pensioners.
- **Change tax incentives/disincentives to operate at the asset level as well as at wrapper level** – to boost the appeal of productive UK investment and to put equity investment on a par with debt investment. Savers are rightly given incentives to invest, but not to invest in the UK, to support the communities in

which they live and will most likely retire. Re-establishing the social contract between society and savers is an appropriate quid pro quo for the valuable tax incentives provided.[20]

"We have created an unconscious ecosystem that feeds on the oxygen which used to grow the system. And then you add in LDI. You add in preventative regulation. You add in tax disincentive, if you will. You create a fire blanket. Now, the thing about fire blankets is they work pretty well when there's a fire, but people forget when there is no fire you've got to take the fire blanket off. Otherwise, you don't get any oxygen to the thing underneath the fire blanket. Because there's no oxygen, there's no investment. So productive investment is the oxygen of the system. It doesn't happen without risk."

NCC interviewee quote*

A Re-Imagined regulatory system

Change is also needed to create the right regulatory incentives for a sustainable growth economy.. The current system is only a decade old but was designed to address problems caused by the Global Financial crisis, not the challenges of the next two decades. The industry is already suffering regulatory fatigue so changes will need careful management to achieve buy-in. In the interim, change to regulatory oversight is essential - it is unreasonable to expect regulators to set the rules and also assess the effectiveness of the rules they have themselves imposed on others.

The fragmented and over-complex regulatory system also needs redesign at an architectural level. As we explain in Section 1 the current regulatory architecture is itself over-complicated, fragmented and lacks accountability against system purpose.

- **Short term**, we recommend extending the role of the Regulatory Innovation Office to have responsibility for system oversight measured against system purpose – beginning with a system purpose that delivers on social goals for individuals, the economy and society; while recognising
- **Longer term**, we recommend review of the regulatory architecture and its modus operandi; a rebalancing the role of regulators to create the right trade-off between the achievement of savers' objectives, the security of institutions, democratic parliamentary accountability and a rationalising and modernising of the regulatory approach.

The end result of these recommendations could be transformative:

- A more resilient UK economy and sovereign state;
- Better retirements because of bigger investment pots;
- More UK investment to provide the capital needed to develop green infrastructure for sustainable growth; and
- A growing economy, providing better, more productive jobs.

Our Report

The nature of this study is co-creative and iterative. This report contains our qualitative research and analysis, and initial recommendations. Discussion of these with key stakeholders will enable NCC to identify further considerations and inform final, implementable recommendations.

- **Section 1** sets out why the UK's investment system is current delivering under-investment and low productivity. It makes the case that only a whole systems approach to reform will have a lasting impact;
- **Section 2** identifies the stocks and flows (and their interactions) within the UK investment system. It describes the system as it is today and in reality rather than as it appears in textbooks;
- **Section 3** describes the individual components of the investment systems (pensions, retail investment, asset management, capital markets and corporates etc.) in more detail;
- **Section 4** describes our key learnings about how the system operates in practice and the issues it faces. This is derived from a series of interviews held with senior industry participants;
- **Section 5** analyses the behaviours and incentives that currently drive the investment system and draws out a number of key incentive-chains that need re-orienting back towards 'productive purpose';
- **Section 6** covers the policy opportunities for effective change and sets out NCC's Recommendations.

*The drop quotes highlighted throughout this paper are taken from interviews conducted on a Chatham House basis with approximately 45 key industry stakeholders. The views they expressed have greatly informed our thinking. For more findings see the Appendix.

1 Introduction

"The financial system is the circulatory system of the economy; it provides the funds necessary to sustain economic activity"

\- Janet Yellen[21]

1.0.1 Whilst the problem of UK under-investment and low levels of productivity are widely recognised by policymakers, economists and commentators, the actual and precise relationship between declining productivity and a failing UK investment system remains unanalysed.

1.0.2 Numerous policymakers have proposed reforms to the investment system to deliver in some way or other – via more security issuance into the capital markets; the creation of deeper and larger pools of deployable pension investment; or a more UK-centric asset allocation outlook.[22]

1.0.3 While all aim to lift investment and boost productivity, none have asked whether the UK investment system itself is fit for such purpose.

1.0.4 NCC believes that productivity reform that fails to acknowledge and work with the actual character and operation of the investment system is doomed to failure. It will deliver only short-term solutions at best, and 'magical' or 'wishful' thinking at worst.

1.0.5 NCC's own analysis concludes that the investment system is not functioning well in providing a circulatory link between UK savers and borrowers. Currently, there is too little flow of money from UK savers and investors into the UK economy, and consequently too little flow of returns back to current and future pensioners. The fabric of the body politic, its current and future (specifically sustainable, resilient and regional) infrastructural health suffers as a result.[23]

The UK is facing a 'Tragedy of the System'— a failure to effectively allocate investment capital from savers to the economy they live in."

1.0.6 There is also too much stress in the system as a result of it having to compensate for circulatory inefficiencies.

- 2023's LDI crisis is one example of a system-level circulatory event resulting from the poor flow of returns from gilt investment back to Private DB schemes. This might be thought of as an investment level shock resulting from investment blockages within the Private DB channel and leading to systemically risky over-investment in LDI.
- Likewise, the current trend for insurers to buy-out Private DB schemes (via bulk-purchase annuitisation (BPA)) risks a similar circulatory shock if / when the flows out of the Private DB channel into the UK insurance sector exceed their capacity. It is worth noting that while Private DB schemes operate under allocation rules that permit diversification and so can invest in longer-term less liquid asset classes, insurance firms operate under the more restrictive Solvency II / 'Solvency UK'. The flow of investment capital from Private DB schemes into the insurance sector will

therefore have a systemic impact on the investment system if left unchecked.

1.0.7 The UK investment system is therefore falling short in both its economic and wider social functions.

> "The financial system, in very simple terms, seems to work more for itself than for the productive economy. Asset transactions between financial entities often drain resources from the real economy."

The UK's Growth Problem is a Circulatory Problem

1.0.8 80% of UK investment derives from the private sector,[24] and so it is ordinary savers that ultimately fund UK businesses either directly (through share or bond ownership) or more often indirectly (through pensions and investment funds that delegate security selection to professional managers). Indeed, the nature of our pensions and savings systems has resulted in the UK enjoying the second largest pool of retirement assets amongst OECD countries.[25]

1.0.9 UK workers and pensioners should therefore be driving the UK's economic growth agenda for both economic and political reasons – to benefit from better returns and to more effectively steward the UK businesses in which they work.[26]

1.1.0 And yet they are not.

1.1.1 Business investment in the UK is one of the lowest among OECD countries;[27] while UK pensioners are missing out to Canadian, American and Nordic pensioners on those opportunities for UK investment and stewardship that do arise.

1.1.2 Here then is a telling juxtaposition: on the one hand the UK has a rich pool of return-seeking and long-term pension assets, while on the other the UK remains underinvested and UK pensioners subject to poor returns and concomitant poor prospects for life in retirement.

> "The UK government has gradually shifted its view of what defines successful investment—from a broader economic perspective to stock market valuation alone. This narrow lens has altered the landscape."

1.1.3 Such juxtaposition can only imply one thing: that the investment system itself is failing in its key task of allocating investment capital effectively from UK savers to the very economy in which these savers live their lives as workers, pensioners and citizens of an under-invested state. It is failing in its intermediating or circulatory function.

1.1.4 "A well-functioning financial system is essential for the economy, as it provides the critical link between savers and borrowers", as Ben Bernanke notes. And likewise, Robert Shiller notes "the function of the financial system is to transfer funds from those who have surplus funds to those who need them.[28]

1.1.5 An investment system that operates more efficiently is ultimately the means to better social ends:

- A stronger financial sovereign state;
- Better lives in retirement for UK pensioners;
- UK economic growth leading to more productive and promising lives for UK workers;
- less risk for the state as 'supporter of last resort';
- a more equitable society - with more UK citizens 'participating' in capital investment as opposed to feeling disenfranchised from it[29]; and
- stronger intergenerational relationships - with current generations leaving a more resilient economy as a whole to future generations, as well as sharing the pension bill more equitably[30].

The Heart of the Matter

1.1.6 Expressed socially or politically, the investment system is the heart of the UK economy connecting the nation's savings / retirement aspirations to its economic growth aspirations via an (ideally) continual and unblocked flow of capital to and from savers and UK firms:

1.1.7 And if the investment system is the heart of the UK economy then logic dictates that the Asset Management Channel is the heart of the investment system itself – pumping funding into the UK economy from the investment pooling channel and via the capital markets; it then re-collects returns-on-investment and pumps returns back to savers and investors[31].

Poor Quantity of UK Investment Capital Flow

1.1.8 As with the human heart and the volume of blood, the quantity of capital within the UK investment system is important.

1.1.9 The UK's current investment circulatory system is such that the various asset pools lack volume at the level of access, as the UK's sizeable total pool of capital is fragmented across myriad smaller pools.[32] The interaction of these pools with the Asset Management Channel and the resulting asset allocation is conditioned by a number of factors with the end result being too much volume flowing to parts of the system and too little to others.

1.2.0 This is why it is important to engineer more consolidated standalone pools of capital within the UK's total investment pool in parallel.

1.2.1 Raising the total volume of investment capital within the system is clearly a policy goal, and NCC welcomes ongoing debate about the adequacy of current DC contribution rates as well as about more general 'retail participation' in investment markets: both need to be higher. But these debates will take time.

1.2.2 In the meantime, the consolidation of LGPS, DC and private DB pension schemes (via Superfunds) will not only deliver localized pools of higher volume investment capital but will concentrate the asset allocation of those pools in the hands of professional investors.

> "Fund management acts as a 'bridge' between investor and market, often the secondary market, creating an ecosystem of intermediation."

Fig. 1: The Human Circulatory System

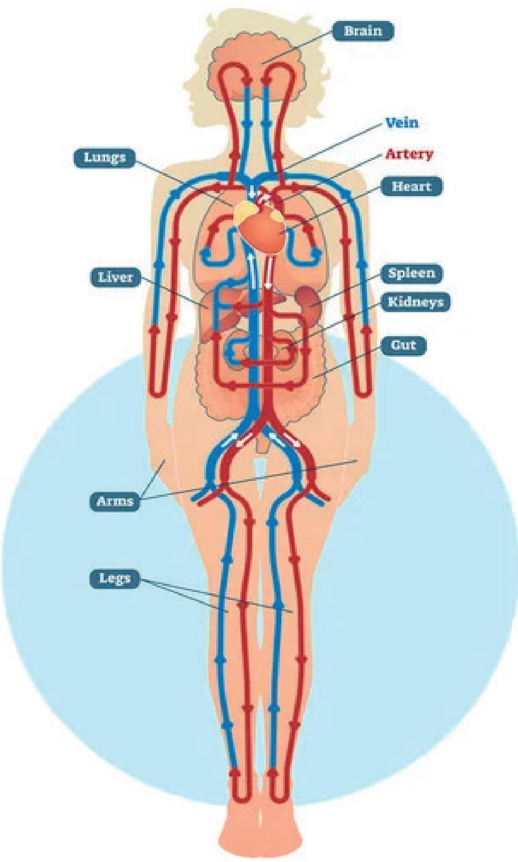
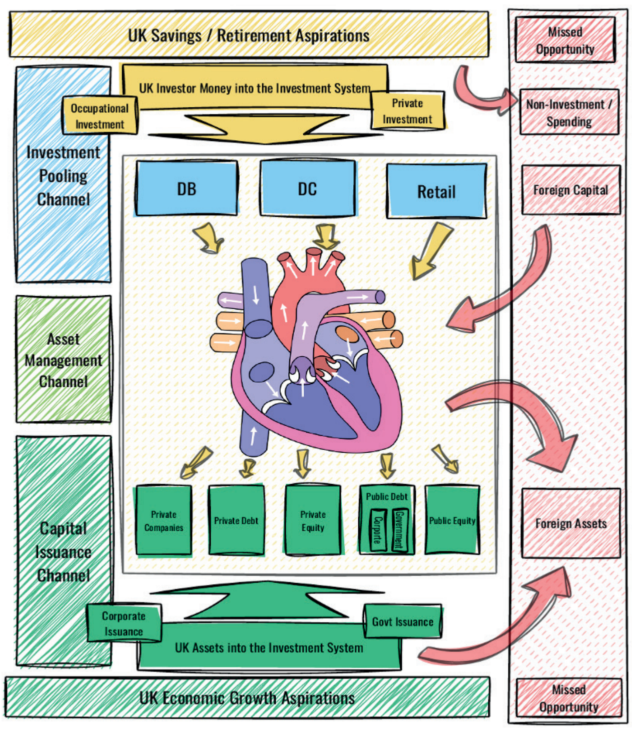


Fig. 2: The Investment Circulatory System



1.2.3 The policy tools for consolidating pools of Occupational investment are also more readily to hand than those for stimulating and consolidating Private Investment, where NCC thinks the government needs a much more ambitious and holistic policy agenda than the one currently envisaged (and as outlined in our Executive Summary).

"The regulatory system incentivises banks to provide credit, not to provide equity finance."

Poor Quality of UK Investment Capital – Restricted Flow

1.2.4 The quantity or volume of investible capital is as important to the UK investment system as it is to the human circulatory system, and NCC have analysed the 'stocks' of capital available within the investment system in its sister report.

1.2.5 However, again as with the human circulatory system, the flow' of capital through the investment system is more important than the 'stocks' of capital located within it.

1.2.6 NCC's work therefore prioritises 'flow' over 'stock' in its analysis, acknowledging that while it is easier to measure and observe systemic stocks than systemic flow, "the dynamic behaviour of systems arises from the flows and their interconnections, not from the stocks themselves." It is the flow in and out of stocks that is important to system dynamic to the extent that stocks become "the present memory of the history of changing flows" or "like a flow frozen in time."[33]

1.2.7 Like cardiologists looking to remove blockages and to reduce barriers from the human circulatory system, market reform needs to identify and remove the same blockages and barriers to the effective flow of capital through the investment system.

1.2.8 It is clearly unwise to pour more money into a stock that then allocates that money poorly – as DB schemes learned with the LDI crisis; a similiar situation could reoccur if 'buy-out' flows from DB schemes to insurers is allowed to run its course unchecked.

1.2.9 Consolidation reform might generate new pools of capital, but only flow reform can ensure these new investment pools are allocated effectively into UK growth assets. As the saying goes, no-one pours new wine into old wineskins for fear of bursting them: "No, they pour new wine into new wineskins, and both are preserved."[34]

The True Heart of the Investment System – The System Itself

1.3.0 With all of this in mind, the key learning from NCC's analysis is that surprisingly the Asset Management Channel is ultimately not the heart of the UK investment system.

1.3.1 While portfolio managers certainly allocate investment capital to investible assets functionally (instructing traders to buy and sell assets in the capital markets) they do not have anything near full 'ownership' of that allocation intellectually.

1.3.2 Rather, our research shows that the allocation powers of the Asset Management Channel are in reality prescribed by the mandates presented to the Asset Management Channel by the Investment Pooling Channel – by Asset Owners such as DB and DC trustees, wealth managers and insurance companies. These in turn are heavily influenced by regulation. Portfolio managers can only ever deliver to the mandates with which they are presented and so the nature of these mandates become crucially important.[35]

1.3.3 This would suggest that it is the Investment Pooling Channel that is the heart of the UK investment system, governing its flow dynamics with the mandates it sets the Asset Management Channel.

1.3.4 And yet our research suggests that this too is not the case.

1.3.5 Like portfolio managers (taking mandates from the Investment Pooling Channel), Asset Owners are also forced to 'take' allocation instruction from a variety of places within the system rather than setting allocation themselves.

"We often hear it's about regulation, but it might actually stem from groupthink among market participants. We have a model that works, and an entire ecosystem supports it—even fintechs have to plug into it."

1.3.6 Most immediately, asset owners are subject to their own regulatory requirements in either hard or soft form. Solvency II is an example of a hard allocation requirement while the need to minimise cost of portfolio management is an example of a soft requirement. Both elements govern the nature of the mandates that asset owners transmit to the Asset Management channel – over, above and before any allocation preferences that asset owners might themselves have on behalf of their pensioners.

1.3.7 But investment mandates are also pre-determined by other systemic factors too. For example, by the time and expertise that Asset Owners are able to lend the discipline of asset allocation (often not a lot); by the nature of the commercial relationship between an Asset Owner and a Portfolio Manager (for example, Asset Owners often 'take' fund products off the shelves of Fund Managers rather than instruct Portfolio Managers in managing segregated mandates); or by the advice given to Asset Owners by consultants or other advisors (and driven by their own commercial interests).[36]

1.3.8 Ultimately, there are many factors that effectively pre-determine the nature and form of the asset allocation that the Asset Management Channel is required to deliver at a functional level. There is no one single place, point or actor within the UK investment system from which flows obtain their dynamism. Rather the forces that dictate the UK investment system's flow derive from various points within the investment system, and so reform needs to address the system by applying political pressure only to those points in the system that determine flow.

1.3.9 There are no singular and reformable heroes or villains within the UK Investment System. The first and fundamental task of the UK productive reform agenda is therefore to acknowledge that this is the case, to forgo the political convenience of 'silver bullet' thinking and to work at the level of the system itself – in all its messy reality.[37]

NCC's Systemic/ Systematic Approach

1.4.0 NCC's approach to the 'wicked problems' of UK productivity is rooted in Systems Theory, especially as espoused by Donella Meadows and others.[38] We apply this powerful framework for understanding and managing complex systems to the UK's co-joined problems of poor savings / retirement outcomes and poor economic growth outcomes.

1.4.1 While the 'wicked problems' of climate change, poverty and healthcare reform are increasingly acknowledged, the 'wicked problems' inherent in delivering better outcomes for UK workers, pensioners and the economy (including via the investment system) remain largely unresearched.[39]

1.4.2 Systems Theory has previously been applied to the Global Financial Crisis (2007-8) where government policies, market dynamics, and institutional behaviors clearly played intensely complicated interconnected parts in the crisis; and it continues to be used in work concerned with financial systemic riskiness ('Too Big To Fail').[40]

1.4.3 But these studies have focused on the banking system rather than the investment system; and where they do look at the investment system it is in the context of the contagion risk that the so-called 'non-bank' (investment channel) poses to the financial system as a whole and banks in particular.[41] The LDI crisis is a classic case that NCC analyses below.

1.4.4 Fewer studies begin from the perspective of the positive and constructive role that the investment system might play within the financial system and society, and fewer still address the 'wicked problems' that need surmounting to maximise the system's catalytic role.[42] Only one addresses the function of the investment system in directing capital flow specifically towards sustainable economic growth within the UK.[43]

1.4.5 Ultimately, we are looking to identify the best points for political or policy intervention in the UK investment system. And here, again, we follow the logic of Systems Theory that conceives of two distinct types of 'lever' that can be used in policy reform: long and short and capable of delivering deep or shallow reform respectively.[44]

1.4.6 While fundamental reforms to the system's mindset, power structure, rules and culture might bring about deeper change, the system itself is likely to resist such axiomatic or archetypal intervention as existential threat or 'too hard to deliver'.

1.4.7 Conversely, while shallower reforms within the system might be more deliverable (because they are more palatable to the system) they will have less overall impact against political objectives because they will fall short of questioning the fundamental modus operandi of the system itself – choosing to work within rather than to challenge its logic.

1.4.8 In reality, effective reform will require both deep cultural and shallow technical change simultaneously. The UK investment system is clearly as much a product of the mindset, culture or expectations of its practitioners as it is of the regulatory rules that shape it at a technical level and so we must design changes to the system alongside changes within it.

1.4.9 This in turn, might translate into a reform agenda spread over the short to medium and long-term - as NCC has described it in the Recommendations of Section 6.

This Report

1.5.0 This report utilises approximately 45 interviews carried out by NCC of industry participants to identify how the UK investment system actually operates in practice. As a first step we set up interviews with representatives from across the entire investment system – from financial advisers working to bring retail investors into the 'investment pooling channel' to the CFOs of UK firms raising funds via the 'capital issuance channel' and everyone in between. This way, we have built up a truly holistic and representative picture of the investment system, from saver to borrower.

1.5.1 We then conducted 60-90-minute interviews with each representative under the Chatham House Rule in order to generate the right environment for candid discussion. We asked respondents to speak freely: first, in describing the operation of their particular part of the investment system; and, second, in identifying any barriers to the more effective flow of UK savings and investment into UK growth assets. This way, we have built up an evidence-based view of the system as it operates in practice and in the hand of practitioners rather than as it should operate in theory and / or in the hands of economists or academics.[45]

2 The System Conceptualised

Channels, Stocks and Flows

Remember, always, that everything you know, and everything everyone knows, is only a model. Get your model out there where it can be viewed. Invite others to challenge your assumptions and add their own.

- Donella Meadows

2.0.1 In this and the following section we map out a schematic of the UK investment system as a circulatory system.

2.0.2 We present our maps of the system for comment and refinement by our wider readership because our goal is to derive from debate a consensually accepted picture of the UK investment system on which disparate elements of policy reform might stand or against which proposed policy might be judged.

2.0.3 We conducted our interviews on precisely the same basis – beginning with a 'rich picture' of the investment system as a starter and then asking interviewees to correct and refine it in their comments.

2.0.4 We have then sub-divided our picture of the investment circulatory system into parts "according to their position and relations" while also retaining "as much as may be at a glance" – as William Harvey describes the methodology of his own work on human circulation de Motu Cordis of 1628. And like Harvey in his anatomy theatre, in this section we set out our conception "in the sight of the audience" in order to spark debate and begin to build consensus around an agreed basic vision of the investment system.[46]

Nondesign

2.0.5 The UK investment system is a classic case of what Systems Theory terms a "complex adaptive system." Such systems (whether societies, economies or ecosystems) are typically comprised of a dynamic network of many agents acting in parallel but also constantly acting and reacting to what other agents are doing.

2.0.6 "Complex adaptive systems" are characterised by both 'self-organisation' (the ability of the system to structure itself, to evolve and to learn - via 'feedback loops') and 'emergence' (where the behaviour of the system as a whole becomes greater than that of the sum of its parts, often leading to unexpected behaviours and outcomes that cannot easily be predicted at the component level).

2.0.7 The first thing to note about the UK investment system, then, is its lack of conscious design.[47]

2.0.8 While few investment (or pensions systems) around the world are ever fully consciously designed, the UK investment system stands out for the piece-meal and reactive way in which it has evolved over time rather than being developed with a distinct purpose.

2.0.9 Part of the reason for this is the distinctly 'political construction' of the system out of disparate policy and regulatory interventions over time. Because the UK's political and regulatory landscapes are themselves fragmented and siloed (HMT, HMRC, DWP, MHCLG, DIT at the political level; BoE / PRA, FCA, TPR at the regulatory level) the UK investment system is governed by equally fragmented, siloed and sometimes conflicting policy controls.

2.2.0 The UK's trade association landscape is similarly siloed, compounding this effect.

2.2.1 This has given rise to a regulatory framework that is itself structurally weak because of its 'siloisation'.[48] Within all institutions, overlapping jurisdictions lead to duplication of effort, turf-war and inefficiency; while underlapping jurisdictions lead to gaps in coverage and inefficiency. Furthermore, because its liability and accountability is similarly patchwork, the UK regulatory landscape risks becoming what Dan Davies has recently termed an 'unaccountability machine' – a network of duties, jurisdictions and liabilities so complex that the buck (for example, to stimulate productivity) stops nowhere.[49]

2.2.2 There is also weak accountability within the UK regulatory framework, with different regulators having different levels and types of accountability to Parliament and some none at all.[50]

2.2.3 There is also often confusion over who 'owns' policy design between regulators (for example, the FCA and TPR sharing DC reform) as well as between ministries and regulators (the apparent spat between HMT and BoE / PRA over Solvency UK reforms).

> "It is very important to understand the institutional and cultural aspects of the UK market, which is stale and it's extremely fragmented."

2.2.4 The UK also lacks the EU's legislative mechanism for distinguishing between the political direction-setting of reform and its technical delivery. The EU Lamfalussy Process both establishes where the distinct reform powers reside within the legislative framework and ensures the smooth passage of reform along a pre-defined legislative trajectory: the EU Commission, Parliament and Council set broad policy direction or principles at Level 1 that the ESAs translate into technical rules and guidance at Level 2 that local regulators implement into local regulation at Level 3 and enforce at Level 4. The EU's principle of 'subsidiarity' further ensures that the political direction set at the centre is delivered with appropriate sensitivity within each nation-state.[51] The UK lacks both the Lamfalussy Process' clear division of powers and sense of legislative process as attempts to draw the FCA and PRA into political direction-setting (as distinct from technical rule-making) via secondary statutory objectives for international competitiveness and economic growth attest.

2.2.5 Government agencies must also operate within the constraints of their own statutory duties and attendant liabilities which can lead to further siloisation (for example, the FCA / TPR's oversight of contract-based (DC) pensions versus DWP's oversight of employer-based (Private DB) pensions). And, of course, much of the UK's regulation has famously been applied via the 'rear view mirror' – responding to the last crisis rather than building towards policy goals more proactively.[52]

2.2.6 While we welcome attempts to better co-ordinate policy reform (for example, with the appointment of a Pensions Minister spanning HMT and DWP and the joint publication of the Pensions Investment Review), the fundamentally fragmented nature of the UK's regulatory regime ultimately leaves the UK investment system without the guiding spirit needed to deliver adequately holistic reform.

2.2.7 There is no one golden source responsible for setting the 'purpose' or 'objective' of investment system reform as a whole, leaving siloed policymakers to identify their own often antithetical objectives. Thus, where the investment system is the source of hope for policymakers focused on 'crowding in' private alongside public investment, it is the source of systemic risk or investor detriment to policymakers tasked with guarding against such risks, pulling the agenda in opposing directions.

2.2.8 To borrow a phrase from the climate policy debate, the UK financial system is currently suffering from 'dysregulation'. Its control regime has become so complex and unwieldy that it is inefficient at best and counter-productive at worst.[53]

Systems and Sub-Systems

2.2.9 The second thing to note about the UK investment system is that it sits within a wider financial system comprised of a number of interconnecting sub-systems.[54] Broadly stated these are:

- **The deposit-taking and payments system** – the taking of customer deposits onto a bank's balance-sheet and subsequent balance-sheet deployment (lending, deposit and checking accounts, mortgages etc.);

- **The investment system** – the gathering of customer capital and allocation of that capital to investments; and
- **The insurance system** – the provision of protection via risk-pooling.

2.3.0 Within this nexus, NCC has focused on the investment system in particular because we believe that within the wider financial system the investment system is the key mechanism for unlocking better returns for pensioners / savers as well as delivering more capital to UK growth companies.

2.3.1 The deposit-taking system delivers poor returns to depositors (especially when consumer savings rates lag behind Bank of England interest rates)[55] and leaves retirement savings exposed to inflationary pressures. We therefore support policy that looks to direct flow away from the deposit-taking system and towards the investment system at a fundamental level. We think the right approach to retail deposits is to begin with the 'over-cashed' and we support attempts to identify this cohort.

2.3.2 At the same time, bank-lending to SME and growth companies is in decline while the unproductive secondary trading of securities between banks, other banks and wider market participants (often via high-frequency trading) is on the rise. Arguably, banks are ill-suited to deliver funding to UK growth companies at a structural level: the mismatch between the overnight funding they receive and the long-term nature of the loans UK growth firms need is too great (although we welcome reform of the British Business Bank in this respect). Banking regulation has also prioritised the neutralisation of systemic risk over the 'productivity' of the banking system, setting up what Greg Baer has called "a modern-day Maginot Line, a heavily fortified structure that does not prove useful when the action occurs elsewhere" – or (NCC would add) when the 'action' is proactive (for growth) rather than reactive (for systemic safety).[56]

2.3.3 NCC has therefore confined its analysis of the banking system to where it interacts with the investment system – for example, in providing leverage to Private Equity funds or redemption liquidity to Investment Companies (Investment Trusts).

2.3.4 Notwithstanding the role of insurers in the investment system, the pure ('general') role of the insurance system is to protect individuals and assets, and is thus a secondary enabler rather than primary driver of productive investment

2.3.5 Whilst the sizes of the prizes might be similar across the occupational and private / retail investment pools, the policy levers are different. For one thing, the level of state support for occupational pensions is higher. For another, the challenges in developing an 'equity culture' in UK retail savings are numerous, complex and as reliant on good social policymaking as on good FS policymaking. For this reason, NCC thinks a sensible approach would be to press on with occupational pooling reform at pace, while at the same time as initiating a formal, ambitious and holistic retail investment and wider 'equity culture' review.

2.3.6 The pensions system's 'social contract', aligning pensioner, state and future generations, has become unbalanced over time, and now arguably grants tax receipts to pension schemes without appropriate quid pro quo reciprocity. This contract is itself a key leverage point for pension reform. Retail investment reform needs to address the lack of UK's equity culture, poor retail risk appetite and financial literacy, and arguably could take more time to deliver and take effect.

2.3.7 Notwithstanding the above differences, it is important to recognise that the bulk of investment within the system is related to retirement saving, which creates investment pools within all DB and DC schemes and life insurance companies.

2.3.8 We are also mindful of foreign direct investment (FDI) into the UK economy and do not wish to advocate for a 'closed' or 'domestic-only' investment system for the UK (as a departure from London's current status as an 'open' global financial centre).[57] On the contrary, we view boosting the participation of UK investment in the UK economy as the means of paving the way for higher levels of 'crowding in' of both foreign and domestic investment (and we welcome DIT's annual Investment Summits in this respect).

Channels

2.3.9 NCC believes that a helpful way of understanding the system is to identify the major channels through which investment capital flows. We identify three main activities/ channels.

2.4.0 **Investment Pooling Channel** - the creation of numerous capital pools from savers money through the channeling of such monies into asset owner institutions. Within this channel we identify three sub-channels;

- The Defined Benefit Pensions (DB) sub-channel - itself sub-divided into Private DB and Public DB (LGPS)
- The Defined Contribution Pensions (DC) sub-channel; and
- The Private Investment (PI) sub-channel – again itself sub-divided into advised or unadvised routes to entry on the one hand and between the available savings vehicles (Personal Pensions, SIPPS, ISAs, General Investment Accounts) on the other.

2.4.1 The various pools within each of these sub-channels, typically controlled by Pensions Funds, Life Insurers and Wealth Managers, have differing appetites for risk and liquidity. A small amount of investment is carried out directly by individuals and by Foundations.

2.4.2 The nature of the pension promise (DC, DB, Collective DC (CDC), Unit linked, annuity, etc) significantly impacts the types of investments made.

> “The concept of productivity in investment doesn’t enter the typical calculation.”

2.4.3 **Asset Management Channel** - the conversion of these multiple capital pools into typically larger pots each of which have a mandate to invest in securities (public equity and debt, private equity and debt, private companies in their entirety and other physical assets such as real estate or infrastructure).

2.4.4 Asset Managers might also purchase Financial Derivative Instruments as well as the assets listed above. They do this to manage the risk profile of the underlying investment exposure.

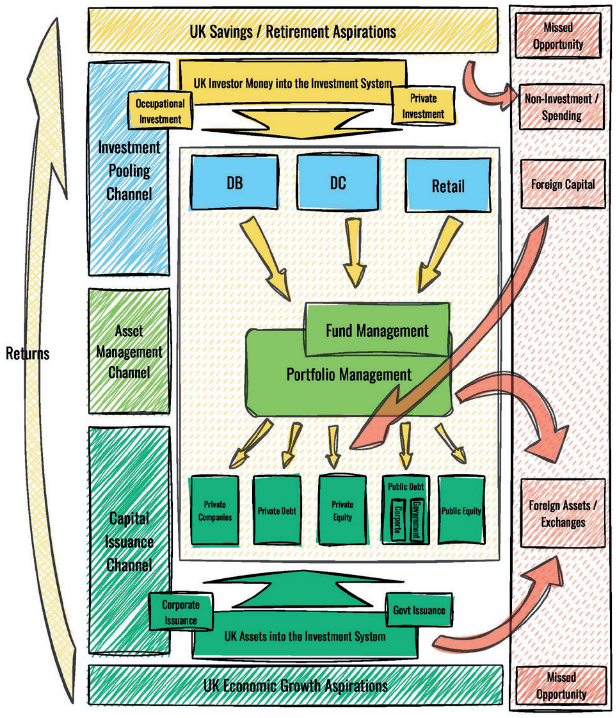
2.4.5 This can be done directly through portfolio Management (PM) activities by creating a Segregated Fund, which might have a limited set of investment constraints or alternatively a heavily constrained risk profile (for example, to match a pool of assets backing annuities regulated under Solvency II).

2.4.6 Increasingly, this is done through pooled fund management vehicles such as unit trusts, OEICs, Investment Trusts, Managed Funds, or other Collective Investment Propositions – as distinct from single-client ‘segregated mandates’.[58] These vehicles in turn purchase Portfolio Management services internally or from a third party.[59]

2.4.7 The acquisition of available securities usually takes place through public or private capital markets - the key exceptions being when investment is made into private companies in their entirety (by Private Equity partnerships) or into other physical assets such as real estate or infrastructure.

2.4.8 **Capital Issuance Channel** - the transmission of capital into the real economy through Governments, Public and Private corporates issuing securities into capital markets (in which we, for simplicity, include LLP structures).

2.4.9 Schematically:



The Investment Pooling Channel – bringing savers’ money into the system in the first instance. This channel itself falls into two sub-channels: the Occupational Investment Channel (pooling money via DB and DC workplace investment schemes); and the Private Investment Channel (pooling money via non-workplace schemes such as Personal Pensions, SIPPS, ISAs and General Investment Accounts).

The Asset Management Channel – allocating available money to investment instruments or companies either via segregated portfolio management and/or fund management; and

The Capital Issuance Channel – bringing investment instruments or companies into the system in the first instance via the public and private capital markets.

2.5.0 While the figure opposite might suggest a designed investment system, in reality, there is much more complexity at work within the system – as there is within any system:

- **Investment Pooling**. There are multiple, overlapping and sometimes competing / conflicting points of investment pooling within the system – effectively placing pools in fragmentary competition with one another (rather than consolidated collaboration) and presenting savers with a confusing set of options.
- **Capital Issuance**. Likewise, there are multiple, overlapping and sometimes competing / conflicting points of capital issuance. While we welcome government and other efforts to make the securities issuance function more effective,[60] there is clear competition between private and public funding in meantime (and in the short to medium term). The capital markets offer little clear public route from venture firm to start-up to scale-up to publicly listed. There are differing levels of price discovery across the channel (most notably between public and private assets) and differing levels of governance and stewardship.
- **Asset Management**. By contrast to the over-fragmented Investment Pooling and Capital Issuance channels, the Asset Management channel is arguably over-consolidated. The channel's reliance on benchmarks and passive / index strategies not only strips activity or strategy out of allocation but consolidates ownership around the same assets. At the same time the industry's 'capital-gathering' (as distinct from 'capital allocation') mindset, itself a product of over-sensitivity to market competition and investment trends, has given rise to more than 4,700 fund vehicles domiciled in the UK (with non-UK domiciled funds also being made available).[61] The Asset Management channel is therefore characterised by a distinctly unproductive mix of too few consolidated strategies spread across too many fragmented vehicles.[62]

2.5.1 The briefest of 'systemic' glances suggests the need to consolidate investment pooling; to consolidate and continue rationalising the capital issuance channel; but to introduce much greater diversity and ambition into the asset management channel.

Stocks and Flows

2.5.2 The third thing to note about the UK investment system is that it is best understood in terms of its 'stocks' and 'flows'. According to Systems Theory:

- A stock is the element of a system that has accumulated over time and is stored within the system. It represents a reservoir of resources, energy, or material that has built up and can be depleted or added to.
- Flows are the rates at which stocks are added or subtracted. They are the activities or processes that can fill up or drain the stock and they therefore represent how other parts of the system can influence the stock.

2.5.3 In the investment system, then, 'stocks' are the accumulated pools of capital available for investment as well as the pools of assets available to be invested in. DB pensions, DC schemes, bank and insurance balance-sheets are all 'stocks' of capital to be invested; while public and private equity and debt instruments and real assets are 'stocks' of assets to be invested in.

2.5.4 The 'flows' of the investment system are whatever activities or processes move money in and out of capital and asset 'stocks' – including the crucial act of asset allocation, which allows money to 'flow' from 'capital stocks' (where it exists as saving) and into 'asset stocks' (where it becomes investment).

2.5.5 A sister NCC report entitled "How much money is there in the UK investment system" analyses the precise amount of money in the system's various investment pools. Our analyses are based on ONS data which we consider to be the most reliable source of information – though one key finding of the report is how poor (and poorly available) data on the precise size and location of the UK's investment pools are. This not only makes effective policymaking hard to deliver (one can't manage what one can't measure), but has also given rise to unhelpful levels of 'guesstimation' and 'big-numberism' within reform debate.

2.5.6 As of today, NCC has robust analyses of the occupational DB and DC investment pools, while a subsequent report will focus on the amount of money in the Private Investment sub-channel.

Table 1 Total assets in the Investment System (Q1 2024)

Investment pool	£'tr
DB (private sector and LGPS)	1.7
DC	0.4
Private Investment (PI)	[3.4][70]
Total	**5.5**

2.5.7 A primary finding of our "How much money is there in the UK investment system" report is that the amount of money in the private sector DB pool reduced by approximately £650 billion between Q4 2021 and Q1 2024. This resulted from very heavy investment by the DB sector in government debt/LDI and the LDI crisis that occurred in 2022 and into 2024. Some of this £650 billion loss may be mitigated should interest rates return to their previous historically low levels, which we consider unlikely.

2.5.8 Conventional wisdom within the DB sector is that, given the decline in asset value is matched by a similar decline in liability value, the DB sub-system is no worse off. We do not accept this position. The liabilities of the DB sector are unchanged, but asset values have declined. It is only a feature of accounting methodology, that decreases the value of the liabilities and creates the illusion that the sector is no worse off.

2.5.9 Derisking and planning for buy-out may make sense for an individual scheme, but makes less sense at a system level. A failure to recognise this led a very high proportion of the overall investment system assets being in a concentrated asset class and exposed to systemic risk.[63] This points to lack of oversight and management of the investment system as a whole.

3 The System Anatomised

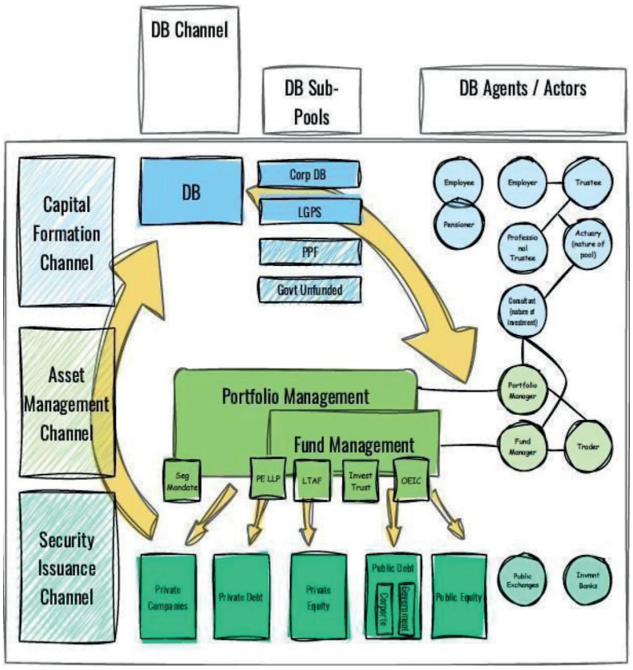
A Channel-by-Channel Analysis

There is so much talk about the system and so little understanding

- Robert Persig[64]

3.0.1 In this section we anatomise our map of the UK investment system according to its constituent channels and sub-channels.[65]

Investment Pooling - DB Sub-Channel



3.0.2 We split the DB sub-channel into 3 sub-pools, with asset values as at March 2024 as below. Unfunded pension schemes, both Government and Private are ignored as they do not contribute any investment capital.

Table 2 Total assets in the DB Sub-System (Q1 2024)

DB Sub-pool	£'bn
Corp DB (or Private DBH)	1,181
LGPS	547
PPF	32
Total	**1,760**

3.0.3 The primary agents and their interaction with the Asset Management and Security Issuance channels are illustrated below in Figure 2. An important feature of the DB sub-channel is the role of Trustees who bear the responsibility for asset allocation; they typically make heavy use of consultants to perform this activity.

3.0.4 It is important to note the high degree of fragmentation that exists within the Corporate DB sector. As of 2023 there were just over 5,000 private DB schemes with just under 9m members.[66] Only some tens of schemes have sufficient critical mass to 'own' portfolio management and fund management skills making the remainder dependent on a highly concentrated market of professional advisers.[67] As prior research and our analyses indicate, this makes the DB market susceptible to high levels of herding behaviour.[68]

3.0.5 LGPS schemes are significantly less fragmented with eight asset pools in England and Wales and ten in Scotland operated on behalf of c 86 councils. As a result, they have higher levels of portfolio management and fund management skills.

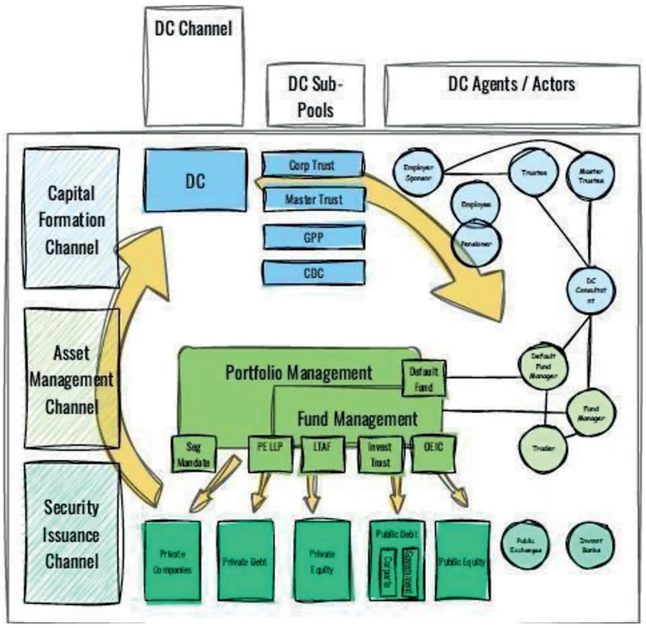
3.0.6 The PPF is operated centrally with its own fund management operations.

3.0.7 As demonstrated from our "How much money is there in the UK investment system" report, The LGPS and PPF channels did not suffer the asset losses exhibited by the Corporate DB sub- channel, which leads us to conclude that the market structures (and accompanying regulation) and high levels of fragmentation within the Corporate DB sub-channel were in large part contributory to the asset losses incurred over the last 2-3 years.

3.0.8 Within the DB channel, risks are initially borne by the sponsoring employer, but in the event of the failure of the employer, the saver is likely to incur losses should the fund be transferred to the PPF, at which point member benefits will be reduced.

"[Trustees] natural reaction is to move risk out of the system. They get a mauling, and it's in their interest to remove risk"

Investment Pooling - DC Sub-Channel



3.0.9 We split the DC sub-channel into 3 sub-pools, with asset values as at March 2024 as below. Private DC includes both Corporate DC Trusts and GPPs (Group personal pensions). CDC (Collective Defined Contribution) schemes are currently *de minimis*.

Table 3 Total assets in the DC Sub-System (Q1 2024)

DC Sub-pool	£'bn
Private DC	288
DC Master Trusts	193 (as of June 2024)
NEST	43
Total	**524**

3.1.0 Self-employed individuals securing their own personal pension through an insurance-based contract or a wealth management-based SIPP will be captured in the PI sub-channel. The differing nature of the agency systems underpinning Corporate Trust based schemes (DC channel) and financial adviser-driven, contract-based plans (PI Channel) result in them having different risk management and asset allocation processes.

"FRS 17 drove DB funds out of equities because of matching to bonds."

3.1.1 Whilst the amount of assets in the DC sub-pool are significantly less than in the DB sub-pool, DC investment is exhibiting significant growth, whereas DB is in decline, albeit decline that will last several decades.

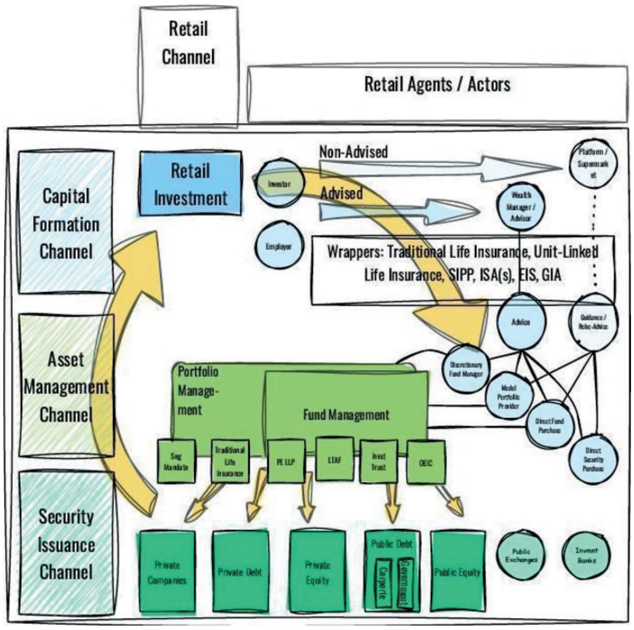
3.1.2 Trustees remain an important feature of the DC sub-channel, in a similar way to DB. Another key feature is the existence of default funds, with asset allocations set by the Trustees into which the vast majority of assets flow.

"When the pension protection fund was created... mark-to-market accounting pushed DB schemes to reduce risk exposure."

3.1.3 There has been significant consolidation in the DC trust-based pension sector from nearly 3,700 schemes in 2012 to about 1,200 in 2023 with many schemes now falling under a Mastertrust arrangement. This is part of a broader shift towards fewer, larger schemes, that should benefit from economies of scale, greater professionalism and potentially provide better value for money. Projections suggest that this trend will continue, with estimates showing the possibility of trust-based schemes falling to just over 500 by 2030. The amounts of saver's money now held in the largest DC Mastertrusts (NEST included) have grown from £143 billion in mid-2023 to £169bn in March 2024. As such, whilst the DC market still suffers from fragmentation, market forces plus regulatory encouragement is driving towards a more efficient market and current market structures do not appear to play a significant role in sub-optimal asset allocation. As we will discuss in the next section, the primary problems in the DC channel derive from its treatment of liquidity.

3.1.4 Unlike DB, the entire risks of the capital formation DC process are borne by the saver.

Investment Pooling - Private / Retail Investment Sub-Channel (PI)



3.1.5 The PI sub-channel comprises investment where the individual 'bears responsibility' for the risk appetite and asset allocation. This is likely to be delegated to an adviser and unless the individual is sufficiently wealthy to afford their own segregated fund, or sufficiently knowledgeable to manage their own investments, their savings will be aggregated into an asset pool along with other savers with similar attributes.

3.1.6 Advised savings, which comprise the bulk of the PI sub-pool, is likely to be managed through a combination of financial advisers, wealth managers and life insurers. They make use of wrappers, which confer particular tax advantages, e.g. as SIPPs, ISAs, Life insurance, VCT, etc. They may also access ready-made products, e.g., model portfolios or Collective Investment Propositions (CIP's) or traditional life products, such as a with-profits product or annuity. The wrappers or products utilised will impact the risk appetite of the ultimate asset pool and their investment strategy. Platforms are used largely for administrative ease.

3.1.7 Non-advised savings typically use a different type of platform, robo-adviser or fund supermarket (together Investment Platforms) to access fund management, portfolio management services or capital markets directly. In such cases, the platform provider provides a range of wrappers to enable savers to access tax advantaged saving.

Table 4 Total assets in the PI Sub-System (Q1 2024)[69]

PI Sub-pool	£'bn
Life insurance	2,581 (Q2 2024)
ISA's(Stock and Shares)	431
ISA's (Cash)	294
Unwrapped Investment	119 (Q2 2024)
Total	**3425**

3.1.8 The wealth manager or adviser is obliged to assess the risk appetite of the saver, and will typically utilise actuarial or 'quasi-actuarial' risk methodology to match saver risk profile to an asset portfolio that reflects the savers desired goals, capacity for risk, capital loss, etc. Instant liquidity is required to be provided, unless the saver requests otherwise and can demonstrate the skills, understanding and capacity to invest in non-liquid assets.

3.1.9 All risks are borne by the saver, with wealth managers and advisers being paid an ad valorem fee. The exceptions to this are traditional life insurance products (but not unit linked products), where investment risks are shared between the saver and the life insurance institution e.g. with-profit plans or borne by the life insurer e.g. annuities.

3.2.0 The primary agents and their interaction with the Asset management and Security Issuance Channels are illustrated in the diagram above.

Investment Pooling – Regulation and Accounting

Regulation

3.2.1 The Investment Pooling channel is heavily regulated by several regulators depending on what part of the system savers money is put into with the key ones being the PRA, the FCA and TPR. The PRA primarily focuses upon the prudential solvency of life insurance institutions in the PI Channel and its regulation (Solvency II) has a direct impact on the risk appetite of capital pools managed by life insurers where these capital pools entail any bearing or sharing of risk with savers eg with profit plans, annuities; this is not the case for unit-linked plans where the saver bears all the investment risk.

> "No one's managing our regulators, and there's no accountability and transparency...."

3.2.2 TPR is responsible for regulation of occupational pension schemes in both the DB and DC sub-channels; its primary focus is on encouraging and protecting savings, improving scheme operation and reducing risk to the PPF fund into which failed DB schemes fall.

3.2.3 The FCA operates across all channels with its primary focus being on protecting consumers from bad conduct, ensuring financial institutions operate with integrity and provide value for money to savers; in practice there has been a heavy focus on costs, individual and corporate behaviour and provision of continuous liquidity to retail savers.

Accounting

3.2.4 Accounting standards influence behaviours within the Capital Formation channel, most notably in the DB sub-channel, where they are generally recognised to have led to the closure of most private DB schemes through the introduction of accounting mechanisms that generate high levels of volatility for DB scheme sponsors. This, reinforced by TPR regulation, has had the effect of encouraging DB pension schemes to 'derisk' investment strategies by investing in gilts or 'gilt-like' investments (such as LDI).

Investment Pooling – Interface with Asset Management Channel

3.2.5 The Investment Pooling process results in a series of pools of capital for investment each with a clearly defined risk profile and objectives reflecting both the interests of the saver and, as described above, regulation that controls the behaviour of agents operating in that channel, ie including both asset owning institutions and financial advisers.

3.2.6 These capital pools access the Asset Management channel, via the activities of Strategic Asset Allocation (SAA) and creation of investment mandates (IMs). SAA is an activity, either carried out by in-house experts or investment consultants, whereby the capital pool's objectives are articulated based upon the risk tolerance, time horizon and investment objectives of the pool, and the pool is then allocated to various asset classes. Rebalancing will take place when differing returns cause the pool to deviate from defined objectives.

3.2.7 The SAA process enables the construction of a series of investment mandates which enables the institution managing the capital pools to issue tenders for portfolio or fund management services.

Asset Management - Portfolio and Fund Management

The market for portfolio management and fund management services

3.2.8 Whereas the Capital Formation channel operates on a regulatory-heavy, process-heavy basis which places high compliance requirements on institutions seeking to manage saver pools, the Asset Management channel has considerably lower regulatory and process requirements and operates more like a market, or a series of interconnected markets.

3.2.9 IMs are inevitably framed so as to facilitate access to markets for FM and PM services, with asset owners having a choice, depending on size and pool attributes, whether to directly access PM services or through FM services.

Fund Management

3.3.0 FM is the provision of an investment fund created to appeal to asset pools with particular characteristics, eg a multi-asset fund with a particular risk profile and bond/equity mix, or Collective Investment Proposition aimed at savers with a particular risk profile. asset owners will assemble a 'stable' of FM offerings to meet existing saver needs and attract new savers; when funds fall out-of-favour, new ones will be created. If the asset pool is large enough, the fund manager may create a specifically tailored fund. It is becoming increasingly common to have Funds of Funds, where the fund manager buys funds of a different type from another fund manager. Funds can be created using a variety of legal structures. The primary ones are:

- OEICs/Unit Trusts,[70]
- Investment Trusts
- Segregated funds
- LLP-based funds

3.3.1 Please note that Long-Term Asset Funds (LTAFs) are OEICs (and in competition with EU ELTIFs). LDI strategies are applied to DB pension fund schemes via OEIC structures too (mostly domiciled in Dublin).

> "That's what we .... do in this business, but I see all these issues with the regulator telling them to cut risk."

3.3.2 Some of these funds will be on a 'gross' basis to reflect the tax status of pension pools, whereas others will be on a 'net' basis to reflect the tax status of retail investment.

3.3.3 The ultimate fund at the end of the FM chain, will have a pool of capital (with defined characteristics) that will seek to invest in a set of market instruments, eg bonds, equities, by purchasing portfolio management services. These may be sought from an internal provider or from the PM market, again under a prescribed mandate.

Portfolio Management

3.3.4 PM services are offered from a wide range of international and domestic investment institutions. These organisations will provide either an 'active' portfolio, which seeks to outperform a specific index, or a 'passive' portfolio which tracks a specific index; 'passive' portfolios are invariably cheaper than 'active' portfolios. Indices play a crucial part in where saver money flows.

3.3.5 Indices are typically beta-based market indices, eg the MSCI Global Markets, S&P 500, FTSE100, where performance is quantified against the index, not against absolute gains compared to money invested. Absolute indices, e.g. which seek to provide, say, CPI +2%, are less commonly used.

3.3.6 The PM market can be subdivided into wholesale markets servicing institutional clients and retail markets servicing individual clients.

Asset Management – Business Models

3.3.7 Both FM and PM services are typically remunerated on an ad valorem basis. Business models of organisations operating in both markets are effectively 'asset gatherers'; portfolio growth through retention of existing clients and acquiring new clients typically dominates, with portfolio growth through performance playing a secondary role.[71]

3.3.8 For both FM and PM businesses, since income is a percentage of assets managed and costs are largely fixed, their business models are susceptible to margin pressures and asset outflows; the move to passive investment has resulting in income and profit reduction and contributed to a high degree of consolidation[72] within PM and FM markets. 44% of all mutual fund management is carried out by the top ten asset managers.

3.3.9 While performance-based fees offer an alternative to the ad valorem remuneration model (and we welcome DWP reform in this area), performance-fees remain a relatively unused tool within general asset management.[73]

Asset Management – Investment Consultants

3.4.0 Access to the PM and FM markets is often provided through investment consultants; this is a legal requirement for DB pensions trustees. Such consultants can provide a variety of advice, ranging from asset allocation, manager selection and performance monitoring extending to fiduciary management. Their manager selection activities can mean that they effectively operate as gatekeepers to Portfolio Managers.

3.4.1 The market for investment consultants is concentrated compared to the market for buyers of such services. An FCA review carried out in 2000 identifies 37 firms providing investment consulting services in the UK with the top 3 having a 42% market share by revenue and the next 7 having 28% market share.

Asset Management – Allocation Models

3.4.2 Analyses carried out by Prof Iain Clacher and Dr Sania Wadud, as described in "How much money is there in the UK investment system", identifies that total savings pools in each channel have been allocated to the following asset classes. It is clear from these tables that the most heavily regulated sectors ie DB pensions and Traditional Life invest heavily in gilts or 'gilt-like' investments. Although not obvious from the tables below, Overseas equities are preferred over UK equities.

asset allocation by focusing on primary over secondary investment; and on directing investment towards companies with growth strategies (R&D, expansion, upskilling etc.) over those more mature companies pursuing high dividend payment or share buyback strategies. We think this is important in retaining the correct sense of social utility within the reform agenda. For example, where a general 'UK ISA' risked squandering a 'productive investment' opportunity by incentivising investment in mature (FTSE100, FTSE250) UK companies (or UK-listed companies with overseas, not UK growth aspirations), a more guided 'UK growth ISA' might be calibrated to target quoted (rather than listed), smaller and growth companies more specifically.

Table 5 Asset allocation of DB channel

£'bn's (2024 Q1)	Private DB	Public DB	PPF
Gilts	372	22	0
Equities	121	276	2
Other	314	146	30

Table 6 Asset allocation of DC channel

£'bn's (2024 Q1)	Private DC	DC Master Trusts	Nest
Gilts/FI	46		5
Equities	100		25
Other	142		12.7

Table 7 Asset allocation of PI channel (to be investigated further)

£'bn's (2024 Q1)	Traditional Life Ins	U/L life ins	Other Retail savings
Gov bonds	127	55	
Equities	40	11	
O/s Equities			

Asset Management – Productive Investment

3.4.3 NCC has sought to narrow the definition of investment that is useful to the UK's economic growth aspirations and that might therefore be termed 'productive'. Our own analysis fundamentally distinguishes between 'productive' and 'non-productive'

3.4.4 Currently nearly all investment and asset management activities is **secondary** investment. If new savings are paid into a pensions fund, passed to an Asset Manager, and invested in, for example, UK equity – this money will be used to purchase existing shares in companies from another asset owner, thus transferring ownership rights and a share in future profits of the companies to the savers.

The savings are not directly utilised by the underlying company.

"The stock market keeps rising, which only proves we have capital, not assets. Regional funding through council bonds might be the solution, but the government would need to back them."

3.4.5 In contrast **primary** investment is where companies raise money directly from investors, and use the funds to grow the business, such as venture capital investment. Existing public companies can raise primary capital through rights issues, although they rarely do so, and companies can raise money from public markets through initial public offerings (IPOs), although this is more often used to buyout the existing pre-listing owners.

3.4.6 Primary investment generally share the feature of being illiquid, that is being 'locked away' for a long time and not necessarily having a market value at any given point in time. This should not preclude it from investment by pension funds and long-term savings because these require long-term real returns, which primary investments should provide. However, the UK's regulatory regime, as discussed later prioritises liquidity which creates a bias against primary investment.

"Daily liquidity has become an expectation.. it's become an absolute market standard."

3.4.7 Dividends, share buy-backs and other forms of payout (including remuneration) effectively divert the proceeds of primary investment away from 'productive' corporate re-investment and into 'non-productive' secondary investment (share price support) and non-investment (dividend payment and remuneration).

3.4.8 A recent econometric analysis of more than 5,000 listed EU companies over the past 30 years carried out by Andy Haldane and others concludes that the switch to IFRS accounting rules in 2005 had a significant dampening effect on business re-investment and investment returns (e.g. to pension funds) by between a third and a quarter. The primary driver of this investment drag has been the rise in payouts (dividends and buybacks) to shareholders: since 2005, payouts have doubled as a ratio of sales among listed EU companies. Prior to the introduction of IFSR, fewer than 10 per cent of EU-listed companies paid out more to shareholders each year than they invested. By 2019, that had risen to around a third.[74]

3.4.9 Primary and productive investment is crucial for the functioning of society and the economy, yet has been under-invested in the UK, often because of prioritising investments which give a short-term return and lower (eg negative) positive externalities. The savings/investment system does have several indirect levers to improve this situation.

3.5.0 It is widely argued that there is a lack of primary investment in the UK, specifically in the following areas:

- Entrepreneurial (venture capital) investment: The UK has been very successful in raising venture capital investment for new and rapidly growing businesses, coming in at 3rd in the world and highest in Europe. This investment is generally not undertaken by traditional pension funds or life insurers, and there has been some anxiety that when the companies have grown they have listed overseas (in the USA).
- Investment by SMEs: These tend to rely on bank loans and anecdotal evidence suggests they are starved of capital.
- Investment by large (eg publicly owned) companies: much investment in the economy is undertaken by existing corporations, mostly from retained profits. There is a general criticism of companies in the UK that they underinvest, and engage in short term behaviour. Some commentators argue that it the incentives that are set by shareholders, not the lack of provision of direct capital, that causes this problem.
- Infrastructure investment (including housing): The UK is generally regarded as having a poor record on infrastructure investment. UK pension funds generally do not invest in infrastructure, unlike many

of their peers (eg Australia, Canada and Scandanavian countries – all of which are widely and not coincidentally regarded as the best examples of pensions systems).

- Public investment: Much primary investment is done directly by the Government – for example in the legal system, prisons, schools, nature, etc; although there have been experiments in funding these via PPPs. This investment is crucial for the functioning of society and the economy, yet has been under-invested in the UK, often because of prioritising investments which give a short-term return and lower (eg negative) positive externalities. The savings/investment system does have several indirect levers to improve this situation.

Asset Management – Interaction with the Capital Issuance Channel

3.5.1 The interface between the Asset Management and the Security Issuance channels also operates as a market, with Asset management referred to as the Buy-side and Security Issuance referred to as the Sell-side.

> "The actuarial profession did not do a good job defending the old approach against mark-to-market."

Capital Issuance – Capital Markets

3.5.2 Security issuance takes place by a variety of organisations marketing instruments/securities in their organisations through both public and private markets.

- Public equities
- Public Debt
- Private Equity
- Private Debt
- Private Companies

3.5.3 Public markets operate through exchanges, the London Stock Exchange, which operates several markets, dominates in the UK; attempts are being made to build new more specialised exchanges e.g. Aquias. Private markets operate partly through PE houses making use of public exchanges to acquire publicly listed companies or buy minority stakes in them. Alternatively, PE houses will track and acquire Private Companies that either seek growth capital or a liquidity event. Although there are plans to try and create a PE exchange, most PE activity takes place through private networks or on a direct company-to-company basis. In this context we use PE to denote investment not only in companies providing goods and services but also real assets, such as property, infrastructure etc.

> "The so-called solution to liability management kills the market. It really kills the market because it essentially moved everything to bonds."

Capital Formation – Corporate Issuance

3.5.4 Corporates will be heavily guided by Investment Banks as to what securities will be successful in public exchanges. The security issuance process is heavily regulated both by the FCA and the Exchange; investment banks act as a Sponsor to companies on an initial listing or on issuing a tranche of equity or debt. The Investment Banking sector has consolidated over recent decades and has become concentrated in a small number of mostly, international organisations, which also are themselves at times principles, buying and selling on their own behalf. A market in smaller financial advisers exists that provide 'advice-only' services.

> "Capital for startups is often predatory—founders must settle for aggressive terms, losing out on talent and growth potential. We're losing out to California."

3.5.5 On a business-as-usual state, publicly listed Corporates view portfolio managers as a primary client, setting financial and operating targets, which if achieved, will make their corporation attractive to the PM to buy or to hold. As PMs seek to deliver portfolio outperformance relative to an index, this also leads to Corporates trying to outperform peer companies on a relative share price basis, or build the expectation of doing so, to encourage PMs to 'overweight' their holdings in that Corporate's stock. This is reflected in executive compensation targets with many LTIPs (Long Term Incentive Plans) containing a significant element of peer group share price performance.

3.5.6 Within public markets the above indexing behaviour in the Asset Allocation/Security Issuance interface has the potential to combine with the use of relative IM benchmark indices in the Capital Formation/Asset Allocation interface to create a reinforcing loop and drive the system to be fixated upon relative performance rather than absolute performance.

3.5.7 PE houses have more freedom in how they operate but typically operate on a money-in/money-out basis, ie an absolute return basis. This accords more with the interests of many savers, as compared to outperformance relative to an index, and may be one of the reasons behind the growth of investment in PE investment (together with the higher fees paid to PE managers). PE investment is also less heavily regulated than PubEq, and PE houses have more freedom to remunerate both the managers they employ to run their businesses and themselves, leaving it to the market to decide what is excessive.

Capital Formation – Government Issuance

3.5.8 The UK Government, through the DMO (Debt Management Office) has been a large issuer of long-dated gilts, much of which have been purchased by the DB sector. The large holdings of corporate bonds and gilts held by the asset owner institutions has at times created market instability leading to greater political sensitivity as to how the DB channel and wider investment system operates.

Capital Formation - Capital Deployment

3.5.9 A key finding of the Kay Review carried out a decade ago was that "UK equity markets are no longer a significant source of funding for new investment by UK companies". Most publicly traded UK companies generate sufficient cash from their day-to-day operations to fund their own corporate projects. The relatively small number of UK companies which access the new issue market often use it as a means to achieve liquidity for early-stage investors, rather to raise funds for new investment.'[75] This position has not improved since 2012 when the review was carried out and is evidenced in the table below by the level of dividend, share buybacks within UK stock markets, compared to Primary Capital raised on the main UK stock markets.

3.6.0 This implies that UK public equity markets are no longer currently net consumers of capital. It also implies that for a company to be attractive to be listed on UK equity markets, it needs to be sufficiently mature to be cash generative. It is questionable that should a cash consumptive large-scale UK business seek to be listed, whether UK equity markets would be receptive and would value the organisation as highly as, for example, NASDAQ. The recent experience of attempts to get ARM Holdings to list in the UK are illustrative.

3.6.1 UK private markets are, on the other hand, thriving currently. The table below indicates the amount of capital raised and invested in different sectors of the UK PE market.[76]
It is worth noting that whilst successful, the amounts invested are very low in the context of the overall capital pools that exist within the UK investment system and that the amounts sourced from pension funds and life insurance are especially low.

3.6.2 **Table 9** Capital utilisation by UK private markets over the last 7 years (2017-2023).

Table 8 Capital utilisation by primary UK stock markets in 2023

£Bn's	Total Dividends	Share buybacks	Primary Capital Raised
FTSE100	75	35	2
FTSE250	11	0	1
AIM	1	n/a	1

Table 9 Capital utilisation by UK private markets over the last 7 years (2017-2023)

£Bn's		2017	2018	2019	2020	2021	2022	2023
Capital raised in the UK		6.0	4.7	5.4	8.2	4.9	11.5	8.2
Capital invested in the UK (Market statistics)	Buyout				12.3	22.7	20.4	11.5
	Growth				4.0	8.9	5.2	4.3
	VC				3.0	5.1	3.6	3.2
	Other				0.5	0.2	0.4	1.1
	Total		9.8		19.6	36.8	29.7	20.1
Capital sourced from UK pension funds		1.2	1.2	1.0	0.9	0.3	2.8	0.5
Capital sourced from UK insurers		0.0	0.3	0.2	0.1	0.0	0.2	0.2

4 The System Speaks

Key Learnings from NCC Interviews

In the City they sell and buy
And nobody ever asks them why.
But since it contents them to buy and sell
God forgive them, they might as well.
- Humbert Wolf [77]

4.0.1 In this section we capture key learnings from interviews with approximately 45 interviewees covering the whole investment system.

4.0.2 The danger of leaving the investment system to its own devices are that this leaves accountability for the system in the hands of its operators (those who 'buy and sell') rather than its benefactors (society as a whole). And it thereby assumes that the status quo is satisfactory: 'God forgive them, they might as well',

4.0.3 If we are to re-purpose the investment system with social reform goals in mind we need to begin by 'asking why' the system operates as it currently does, which in turn entails interrogating its practitioners and working up an holistic picture.

4.0.4 Reform (within the system) will be more effective if it works with 'the grain of the investment system' rather than against it. But reform must also countenance a wholesale reorientation of a system that has developed 'ingrained' blockages. It must consider changes to the system as well as changes within it.

4.0.5 Key interview themes are described in Appendix 1 while we cover the major learnings described below.

Investment Pooling - Occupational DB

4.0.6 **Industry structure** - the Private DB chain and industry is too cumbersome and overly fragmented with too many DB schemes, too many Trustees with insufficient skills and too heavy a reliance on external advisers and consultants. This helps to create a disconnect between ultimate beneficiaries and the role of the DB sector within society. The lack of return seeking incentives within the sector is concerning, as is the overall lack of entrepreneurialism.

"Ill-informed policy decisions made pensions too expensive and too transparent on corporate balance sheets."

4.0.7 **Regulation**- has become dominated by 'safetyism' and preventing failures. Risk is viewed narrowly through the lens of volatility, which is somewhat removed from the real risks facing schemes and scheme sponsors. This focus has also led to an attempt to eliminate individual scheme risk at the cost of a buildup of systemic risk, as evidenced by the LDI crisis. Some rethinking of how the sector tries to manage risk is required.

4.0.8 **Consolidation** - both, private and public DB consolidation would help to create fewer schemes, with greater agency, more professional management and Trusteeship, higher skills and funds with scale. To some extent this is happening through the advent of

Superfunds (although this initiative has stalled and the kickstarting of it as outlined in the recent Mansion House speech is welcomed), insurance buyouts, and the rise of fiduciary management, albeit too slowly. However, we have reservations about the systemic risk that could result from too heavy a reliance on insurance buy-outs as the primary mechanism for consolidating the DB sector and the impacts on investment (see below).

4.0.9 **Investment** - the difference between the investment freedoms exercised by LGPS funds and Private DB funds is striking, with the former investing more heavily in real assets and with a greater level of sophistication. The desire to reduce volatility created by accounting standards reinforced by 'derisking' regulatory encouragement is clearly driving the heavy investment in gilts and LDI by the private DB sector. Investment in equities increases scheme volatility, which should not have the significant impact it has given that DB schemes can diversify risk over time (unlike life insurers which have a 'hard' solvency constraint); this provides them with a natural ability to invest in equities. The way in which IMs are set drives standardisation and group-think within investment strategies. Trustees can be disenfranchised and disincentivised from investing locally and opportunities to 'do things differently' are lost. The standardisation also drives systemic risk. All this appears to be driven by current market structures.

"There's no trustee who truly understood that they were leveraging. And that's quite a simple concept."

4.1.0 **Duration of investing infrastructure and investment in real assets** - DB schemes seeking to achieve a buy-out will naturally aim for liquidity at that point. Absent the buy-out transition point, they would naturally invest in risk-bearing assets for longer, as they would be targeting when benefits fall due. At a time when investment pots are close to or at their maximums (5 years pre- and 10 years post-retirement), and compounding of returns provided greatest gains, withdrawal from investment in real assets to invest in low-risk assets required to facilitate buy-out could be perhaps one of the greatest areas of missed opportunity at both scheme and economy levels. Managing a DB pension scheme through to a self-sufficiency goal or through consolidation into a Superfund with a self-sufficiency goal would increase their ability to invest in real assets.

4.1.1 Ultimately without addressing current market structures and simplifying the chain of advisers, we are not optimistic that the inherent structures will do much other than continue as currently. Any form of pressure to direct assets to more productive causes is likely to meet resistance despite the experience of LGPS schemes demonstrating this to be beneficial to both savers and the real economy. Noting the high levels of 'herding' behaviour described earlier, we also believe that the system still contains significant systemic risk, and allowed to continue unabated this will continue to grow, as a very large DB sector is squeezed into a smaller 'traditional' life insurance sector.

Investment Pooling – Occupational DC

4.1.2 **Industry structure** - The DC sector is undergoing significant change already. A double transition is occurring: from Defined Benefit (DB) to Defined Contribution (DC); and from internal to external governance. The shift to external governance (e.g., Mastertrusts) has been gradual rather than immediate. Consolidation in the DC market is also happening rapidly, with ten Mastertrusts holding 90% of the assets.

"What's the point of de-risking if there's no upside?"

4.1.3 We observe that the biggest problem with the current market structure lies not in what the industry does, but in what the current market does not do. Gaps lie in:

- Having products that deal adequately with consumer needs (especially to manage risk) in retirement. This could include CDC and provision of default income streams.
- Provision of advice to DC savers, despite this being a recognised problem for a decade.
- Saving levels remain too low, again a long-recognised problem, but this cannot

be addressed at a fund level, only at a governmental level.

4.1.4 Each of these problems represent a 'ticking timebomb' as saver disappointment feeds into political dissatisfaction.

> "The competing factor as to which Master trust you pick is invariably price. So, there's been a kind of clear race to the bottom in terms of fees."

4.1.5 The sector's focus is on optimising financial futures by minimising risk and maximising return for customers. Nonetheless the drivers to improve returns are weak, especially in comparison to the drivers to reduce costs. There is considerable scope to reduce limitations on higher quality investment, in particular the requirement for daily liquidity and by requiring lifestyling investment strategies to be justified as in the savers' interests. This could help to exploit the five years pre- and ten years post-retirement period, a time when DC pots can be increased significantly.

4.1.6 However perhaps the biggest problems are cultural - reflected in high levels of risk-aversion and lack of innovation. The DC industry has developed from the DB industry and we suspect the techniques and attitudes have also been transferred, leading to similar approaches to management of risk, focus on safetyism/ avoiding failures rather than on delivering the best outcomes for savers. Solutions like default funds, advice tools etc. appear to be designed to focus on specific aspects of regulatory compliance ahead of considering consumer needs holistically. As a result, there could be systemic disappointment for DC savers when they reach retirement. Loosening of the regulatory straitjacket will be essential for innovation to take place.

Investment Pooling – The role of employers

4.1.7 Employers play a key role in the value and the quality of pension provision in the UK.

4.1.8 Following the application 20 years ago of international accounting standards resulting in the volatile DB liabilities appearing on company balance sheets, and pressure from regulators to adopt a cautious approach to investment risk, employers rapidly closed their DB pension schemes to new members and new accrual and replaced them with generally much lower cost and, from the employers perspective, less disruptive DC pension schemes.

4.1.9 In investment system terms, in the case of DB schemes, this resulted in far greater investment allocation to Government and corporate bonds and much less demand for public or private equities or other riskier-asset classes. In the case of DC schemes, an understandable focus on ensuring employees had access to a low cost pension scheme, also led employers and / or scheme trustees to select investment classes such as passive public equities rather than the more expensive active public equity or, even more costly private equity or alternative investment classes. Regulatory guidance reinforced this tendency by advising that the default fund for the many unengaged savers resulting from automatic enrolment should be protected from risk rather than emphasising high performance.

Investment Pooling – Risk Mitigation

4.2.0 It is also important to remember the nature and scale of the 'risk transfer' that has occurred as occupational investment flow has shifted from DB to DC.

4.2.1 As institutions DB schemes effectively act as 'quilting points' where the interests of employers, pensioners, the state and society become stitched together and pull towards a set of common goals that are as socially utilitarian as they are pensioner-specific.[78]

4.2.2 DB schemes mitigate 'longevity risk' for both individual pensioners and the state as insurer of last resort. They set a floor underneath pensioner poverty and support social cohesion by delivering intergenerational fairness.[79] And they constitute a point of trust and certainty between worker and employer (a social contract of sorts) that protects, motivates and drives productivity.[80]

4.2.3 DB pensions provide retirees with predictable, stable and spendable incomes that have a stabilizing effect on domestic economies, especially at times of downturn.[81] In their asset allocation, they have been at the forefront of innovation in sustainable investment.[82] But most crucially, they have provided a key point of contact between pensioner's long-term savings needs and the long-term funding needs of the economy – effectively delivering a 15-20% 'home bias' in allocation towards the UK economy in which UK pensioners work, live and spend retirement.[83]

4.2.4 For all of these reasons, DB schemes have traditionally enjoyed a privileged position within the UK's social fabric. By the same token, the shift from DB to DC has effectively weakened this same social fabric

4.2.5 On the one hand, the UK economy has lost DB's 'patient capital' which has become dispersed and diluted across some 27,000 separate UK DC schemes over time.

4.2.6 But more importantly, UK citizens have lost DB's paternalistic assumption of key risks on their behalf. The Institute and Faculty of Actuaries characterise the shift from DC to DB as a 'great transfer' insofar as it passes market and longevity risk back to the individual citizen.[84]

4.2.7 DC pensioners not only have to worry about the likely length and shape of their own lives (something all humans are poor at), but they then have to calculate how much money is likely to be enough for their increasingly complex retired lives, and then make their own investment decisions within the parameters of their DC schemes accordingly.[85]

4.2.8 All of these are new risk liabilities for DC investors that DB pensioners simply never had to consider. And yet there is growing concern that large numbers of the DC cohort are oblivious to the nature or even existence of this 'great transfer' and the new obligations it gives them to self-provide and self-protect. There is a dangerous 'perception gap' between what DB used to deliver to individuals and what DC delivers to individuals today – arguably exacerbated by the tendency of one generation (DC Generation X scheme members) to assume they will have the same experience in retirement as the last generation (their DB Baby Boomer parents).

4.2.9 This is not the case and policy reform not only needs to address the fundamental 'perception gap' where it exists, but to provide the tools that DC pensioners need to manage their new set of liabilities. Despite the time elapsed since cross-over to DC, these are currently patchwork, weak and hamstrung by investor protection regulation that leans against anything but the most formal (advised) relationship between the system and its consumers. Employers and DC trustees (like retail investment platforms) are prevented from 'nudging' or 'guiding' pensioners towards even the most basic forms of self-help because of regulatory inflexibility.

Investment Pooling – Private / Retail Investment

4.3.0 **Industry structure** - Current market structures, whilst overly complex, do not appear to have the problems of the DB and DC channels. The main problems appear to be cultural, revolving around insufficient risk taking and lack of return-seeking by savers, which is reinforced by adviser (real or perceived) regulatory pressures, which have led to individual portfolios that primarily seek to exploit tax-advantages and are income-focused, rather than seeking growth. Whilst some of this reflects savers' aging demographics, much of it appears to result from excessive conservatism, particularly in comparison to North American and Asian markets.

4.3.1 **Regulation** - The regulatory boundaries within which the industry operates are overly constraining. Fear of failures, Solvency II investment constraints, unclear advice/ guidance boundaries all reinforce saver and adviser conservatism. Whilst each set of rules is individually justifiable within the boundaries within which each regulator operates, they combine, within a whole system perspective, to lead to risk of poorer retirements and a limited appetite to invest in real assets that can generate growth and economic prosperity, thereby contributing to intergenerational inequality.

4.3.2 **Tax incentivisation** - Tax incentives operate at the 'wrapper' level, e.g. SIPPs, ISAs, VCTs, etc and operate independently of underlying investments. The same tax benefits can apply to 'investment in cash' to 'investment in real assets'. There seems to be considerable scope to encourage investment in growth assets, by amending some of the tax incentives, for example, through application of exit taxes or through tax relief on dividends in pension wrappers, if held in assets deemed beneficial to UK society more widely.

4.3.3 **Wrappers** - There is considerable scale to loosen the assets able to be held by various wrappers and to decide which wrappers are more beneficial. Encouraging greater personalisation of investment strategies, the holding of real assets and reconsidering the age 75 trigger for SIPPs/other pension vehicles could be helpful, although liquidity requirements for retail investors would need to be considered carefully; the current binary approach to liquidity does not serve the real needs of many savers.

4.3.4 **Risk/return** - Certain risks within the system appear to be over-emphasised (eg asset loss, volatility, conduct, access to savings, overcharging) at the expense of management of other risks equally or more pertinent to savers and society (e.g. poor returns, insufficient personalisation of solutions, off-shoring of risk, systemic risk). Savers are now bearing all risks, including many which institutions used either to bear or support savers with; institutions appear to operate almost universally on ad valorem business models. There is scope to reconsider the desired relationship between savers and institutions and the appropriate regulation is needed to support this.

4.3.5 **Innovation** - Despite efforts by regulators to stimulate innovation, the system still badly needs an injection of innovation. Greater use of technology in consumer solutions and provision of advice, risk-sharing and liquidity management between institution and savers, management of system risk all represent significant opportunities to improve the system operation and to help change the underlying cultural legacy.[86]

"People have been so focused on getting costs down that this has been a big part of the strategy."

Investment Pooling – Wider Contexts

4.3.6 **Interoperability** - A number of respondents stressed the need for capital formation policy to operate in the round – including Pillar 1 (State pension); Pillar 2 (occupational saving via DB or DC); and Pillar 3 (Retail / private savings).

4.3.7 UK citizens often do not themselves differentiate between different forms / pillars of investment, and frequently hold DC, SIPP, ISAs and other investments under the umbrella of 'pension saving'. Individuals are thus faced with trade-offs between different forms / pillars of provision (e.g. the decision to contribute AVC into a DC scheme or to open an ISA; the consolidation of legacy DC schemes within a personal pension).

4.3.8 The wider context still, is the real-life context in which savings are made and spent – i.e. the shape of life in retirement, its assets (e.g. mortgage-free housing) and its liabilities (e.g. the need to pay for social care for self or family).

4.3.9 All of the above is dependent on the level of pension contributions made by both employees and employers, which for many DC members is too low.

"We need a typification of 'life stage three' in retirement planning. We once had DB/ actuarial certainty, but with DC, this certainty is left to an industry without clear government or societal input."

Asset Management – Fund Management

4.4.0 **Market structures/Scale** - Once investment funds reach a very large scale, they effectively become 'universal owners' and cease to have 'investment conviction' in their portfolios and become focused upon investing in larger companies. Medium-sized funds have greater scope for differentiation and conviction, and through this provide greater access to untapped or under-served parts of the UK economy. There is a clear imbalance within the UK investment system currently; with insufficient numbers of asset owners with critical mass to be 'good clients' with the right skills to provide demand for the asset management products. DB and DC consolidation would help, as would reducing the focus on costs and liquidity in the DC channel. We also need to reverse the decline in the numbers of medium-sized UK funds, by identifying and removing damaging regulations and seeking ways to simplify the supply chain.

4.4.1 **Investment Mandates** - Perhaps the most impactful change that could be made would be to construct mandates that reflect savers' objectives, rather than the objectives of the fund management market. These could, for example, reflect the duration of investing, true value generation through primary investment, environmental impacts and, if savers wish, regional investment or investment in infrastructure in the regions in which they live.

Such mandates are more likely to be 'absolute' return mandates, which could help wean the industry off Global market indices.

4.4.2 **Risk/returns** - The distinction between trading risk (i.e. the ability to buy and sell securities) and investment risk (i.e. the potential loss of capital or inadequate returns through business investment) needs to be reflected in our regulatory systems, if we are to create a better balance between demand by savers for investment product and supply of capital to UK-growth businesses. Use of CAPM based techniques to construct mandates and asset allocations is not only proven to be potentially damaging (e.g. as seen in the Global Financial Crisis) but does not reflect the risk profile of long-term savers. There are sufficient examples of organisations that have better approaches we can learn from.[87]

4.4.3 **Regulation** - Regulatory complexity and use of 'fire-blankets' need a rigorous review. The latter inhibits growth and value generation when used to excess, as currently happens. Simplification of regulation and a focus on returns net of costs (rather than just costs) will make investment of savers capital easier and help to change the UK culture back towards a more balanced attitude to risk-taking.

Asset Management – Portfolio Management

4.4.4 **Current Public Market problems** - These have been highlighted recently by CMIT, who have done excellent work in promoting changes to stimulate the supply of UK growth businesses to the public markets. This must be matched by initiatives to stimulate the demand for investment in such businesses, if we are to achieve economic growth.

"Share buybacks shrink the stock market but benefit investors, not productivity. When Apple issues bonds to buy back shares, it's not investing in new ideas but enriching shareholders."

4.4.5 **Private markets** - No changes to public markets are likely to reduce the growing appetite for private market investment. The fact that such markets are 'unavailable' to less sophisticated savers with smaller pots is a potential source of inequality and private markets should be made more accessible to both the DC and PI channels. This would be easier if there was greater transparency within private markets; it should be good for the higher-quality private investment companies as it will help to distinguish between those that are building strong, innovative, UK growth businesses and those which merely seek to generate returns through financial engineering.

4.4.6 **Real asset investment** - The issues here have already been recognised by the new Government and actions taken to reduce planning and permitting problems, plus the new public/private UK growth fund are welcomed.

4.4.7 **Externalities** - The need to recognise the cost of externalities in company profits will only grow. Without this, it will continue to be difficult to identify which companies are responsible, purposeful and sustainable. If we seek to encourage savers to invest in building UK businesses, this information is important and will help over time to create better narratives by discouraging 'exploitative' corporate behaviour.

4.4.8 **UK weighting** - It seems clear that, through globalisation, some of our local investment infrastructure has been lost. The loss of UK merchant banks is a case in point. If we are to stimulate saver demand for UK investments and provide access to such investments, we will need to reconsider how we rebuild more avenues through which savers can access investment in regional UK growth businesses. Investment hubs have been created e.g. Northern Powerhouse, Cambridge Technology; we need to find ways to scale up our supply of capital to these and other such initiatives.

Capital Issuance – Public and Private Markets

4.4.9 NCC has been to-date less focused in its interviews on the securities issuance space.

4.5.0 The Government, CMIT and TCUK are already involved in some of the reforms needed to make the asset issuance channel more attractive, efficient and 'productive', e.g. Mansion House Initiative, Edinburgh Reforms, IPO / Listing Review, Secondary Issuance Review, Investment Research (Kent) Review, PISCES consultation. CMIT and the CityUK have also been focusing in this area.

4.5.1 Given the significant changes already being implemented in Capital Markets, delivering these reforms at pace but then allowing them to bed-in appropriately and spending political time and resource in other areas of the investment system seems to be more beneficial. A clear and firm timetable for implementation of reform is needed, including timely implementation of:

- The Primary Market Effectiveness Review in the summer of 2024;
- The UK Prospectus Regime Reform and the Secondary Capital Raising Review during 2025;
- Payment optionality for investment research – noting the FCA's recent consultation paper;
- The imminent recommendations of the Digitisation Taskforce

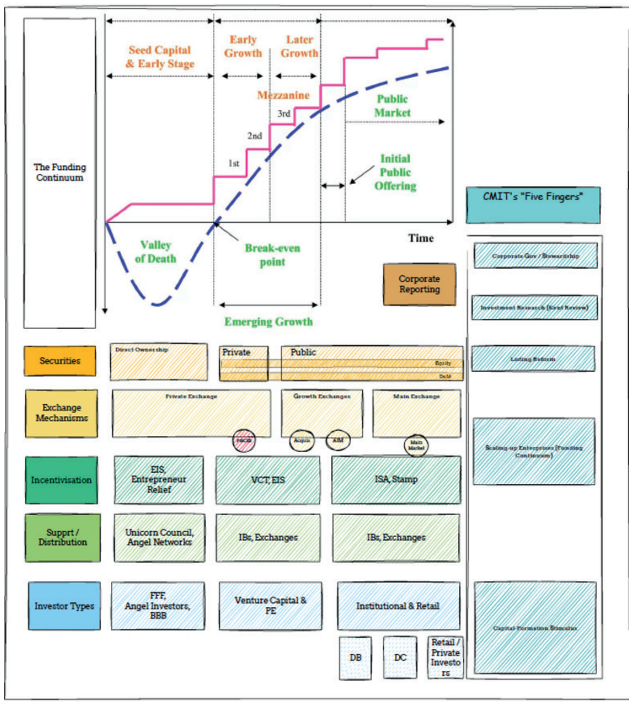
4.5.2 **Investment Research** – a number of respondents questioned whether the 're-bundling' of investment research (Kent Review) would really move the dial for the take-up of SME assets in particular.

4.5.3 **PISCES** – a number of respondents questioned the use-case for PISCES but welcomed the initiative within the FCA sandbox.

> "It's like hitting a wall—the system is designed for big, deep pools of capital. Smaller companies can't easily break through because liquidity and investment research don't support them."

Capital Issuance – Funding Continuum

4.5.4 One of the UK's unique, underappreciated strengths is that it is a market of small and medium sized businesses. It has one of the highest new business densities in the world, with 5.6 million businesses. This environment is producing a pipeline of growth companies, some of which may eventually seek a public equity market listing. UK stock exchanges host well over 2,000 companies (across the London Stock Exchange's main market, AIM and Aquis Stock Exchange). More than 80% (by number) are valued below £1bn, for which public equity markets are an important source of responsible growth capital and price discovery.



4.5.5 However, for many smaller and medium sized companies the funding journey is highly disjointed and scale-up capital is invariably provided by overseas investors, with consequently low flow through to UK-quoted and listed equity markets. For those that do become publicly traded companies, the benefits of UK-listing risk is increasingly being outweighed by low liquidity, high reporting burdens and costs.

4.5.6 Reform focused on a smoother funding continuum, underpinned by joined up policy from start-up to scale-up of UK companies onto UK growth exchanges and listed markets is needed. Creating the conditions for greater investment from UK investors into UK start-ups - to ensure that the UK retains such companies within its own ecosystem when they become quoted or publicly listed companies - is desirable.

4.5.7 Reform also needs to focus on supporting capital formation and increased liquidity in private and public equity markets, to provide a competitive and attractive environment for such companies to be able to continue to access growth capital in the UK throughout their lifecycle.

5 The System Analysed

Market Structures, Incentives and Feedback Loops

A system is more than the sum of its parts. It may exhibit adaptive, dynamic goal-seeking, self-preserving, and sometimes evolutionary behaviour.

- Donella Meadows (2017)

5.0.1 In this section we distil the key factors driving the system as derived from our interviews.

5.0.2 These factors include the system's market structures; the incentives that dictate its flow (both strong and weak); and its feedback loops.

5.0.3 Feedback loops are the circular cause-and-effect relationships that either stabilise the system (via 'balancing or 'negative' feedback) or amplify elements of its behaviour (via 'reinforcing' or 'positive' feedback) prompting change.[78]

5.0.4 Whether they operate negatively or positively, feedback loops are what enable a system to self-determine, self-create and self-maintain by effectively 'marking the work' of its current operation and prompting the system to either maintain the status quo ('balancing' loops) or to double-down directionally ('reinforcing' loops).

5.0.5 Taken together, market structures, incentives and feedback loops make the UK investment system what it currently is – they are its 'grain' or 'ingrained dynamic'. They are also the drivers of the investment system's 'undesign', insofar that they deliver a design that is fit for the system itself rather than one that is fit for users of the system and wider social purpose.

5.0.6 The UK investment system's patterns of incentivisation and its feedback-loops are therefore key 'leverage points' for effecting reform. In order to reform the investment system one must work with the tools of the system's own evolution. For example, feedback loops can only operate on what already exists ('balancing' or 'reinforcing' the status quo) and cannot introduce new direction into system logic. This is one place where reform must intervene by introducing new (perhaps 'aspirational' or 'new-directional') feedback into the system – and crucially from the outside and by design.

5.0.7 Key interview themes are described in the Appendix while we cover the major learnings described below.

Market Structure

5.0.8 It is clear from our analysis that the market structures within the UK investment system are currently behaving sub-optimally. NCC has identified three key market structural problems within the UK investment system:

5.0.9 **Defined Benefit (DB) scheme fragmentation has led to a lack of trustee agency** and concomitant herding behaviour, which significantly contributed to the systemic risk losses described in Section 2. As investment mandates are outsourced en masse to third parties, asset allocation and risk management techniques have become standardised, prosaic and liable to systemic impact. Smaller DB schemes have neither the time nor resource to design and issue bespoke strategic investment mandates to portfolio and fund managers. Instead, they tend to follow peer design which has two effects in recent years:

- First, it has removed individual DB scheme 'agency' as a determinant of flow and replaced it with 'herd allocation' as agent; and

- Second, this 'herd allocation' has been towards Liability Driven Investment (LDI) strategies which in turn gave rise to the gilt market dysfunction we witnessed in September 2022.

> "The advisers… were pushing everyone into LDI… It's not really the adviser's responsibility to look at things like concentration risk."

5.1.0 **An imbalance between asset owners and portfolio/fund managers is leading to asset owners typically conforming to portfolio/ fund management approaches and offerings**. Smaller, less experienced asset owners also tend to follow the recommendations of portfolio / fund managers when issuing mandates – effectively issuing the mandates that their portfolio / fund managers wish to receive. This not only replaces asset owners with service-providers as the agents of asset allocation, but pivots asset allocation towards the preference of service-providers themselves. Portfolio / fund managers are (commercially) more likely to promote off-the-shelf products rather than solutions tailored to the needs of the savers, sponsors and pensioners whose interests asset owners ultimately represent. And they are also likely to advise in line with their own strategic priorities – including the asset management sector's general drift towards global passive over local active allocation.

5.1.1 **The trifurcation of the Savings & Investment market into three distinct but interconnected sub-markets (DB, Defined Contribution (DC), and Retail and Private Savings, such as ISAs) is over-complicated** and fails to meet the needs of savers and pensioners. Each sub-market sits within its own regulatory and market structure, imposing a patchwork onto the UK's pensions and savings channel that is both inefficient in terms of economic funding (fragmented and conflicted) and runs counter to the way that UK citizens interact with their financial futures (in the round and more often including all of DB, DC and Retail/Private provision).

Incentives

5.1.2 In systems theory, incentives are the mechanisms that influence behaviour and outcomes within a system:

- Strong incentives are those that significantly motivate or compel behaviour change, often because they offer substantial rewards or penalties that make the outcome highly desirable or undesirable. These incentives produce clear and rapid responses from individuals or components within a system.[79]
- Weak incentives, on the other hand, have a less significant impact on behavior, either because the rewards or penalties are smaller, less immediate, or less certain. They may not be sufficient to drive substantial changes in behaviour.[80]

> "We have an obsession with cost."

5.1.3 Our analysis identifies five particularly strong incentives that govern the current flow of UK investment monies. These act as the primary drivers of the system's behaviour:

5.1.4 **Regulation** – which influences risk appetite, cost consideration, liquidity management and investment choices across the system.

5.1.3 The UK investment system is ultimately a political construct (as outlined in the Introduction) precisely because it is so heavily determined by underpinning regulation. The fact that the UK's regulatory regime is fundamentally 'nondesigned' is therefore one problem given the power of regulation to incentivise.

5.1.5 The regulatory regime is currently over-geared towards conservatism, risk-aversion and 'safetyism', all of which actively disincentivise precisely the type of productive investment for which the reform agenda is calling. Whether driven by concerns about institutional liability and accountability (the regulators' need to meet statutory objectives and demonstrate the fact); by a peculiarly risk-averse mindset; or by the tendency to regulate retroactively and incrementally in response to problems arising in the markets, the current regulatory appetite is distinctly risk-off.[81]

5.1.6 Because of the strong incentivisation that regulation exerts on it, the UK investment system is forced to shape itself in this same image – focusing its time and energy on managing its systemic riskiness (under BoE / PRA supervision) or on safeguarding retail investors against capital loss (under FCA supervision) rather than on what is needed to effectively connect UK savings to UK economic growth.

5.1.7 Regulation also dictates the system's attitudes to cost (over value) as well as its focus on daily liquidity and volatility risk management – all of which have little relevance to the more strategic, longer-term investments that the reform agenda requires.

5.1.8 All of the above incentives are magnified by an increasingly rules- rather than principles-based regulatory approach. Where appropriately designed principles encourage innovative thinking within set guardrails, rules tend to deliver a 'tickbox' or 'safetyism' mentality within both regulators and practitioners alike.

5.1.9 Absent clarity (which it could be argued rules-based regulation provides), innovation can be disincentivised. Market practitioners manage the risk of being found non-compliant against outcome-based regulation five, ten or twenty years in the future, by eschewing innovation altogether in the present – a potential effect of the FCA's Consumer Duty' regime with its potentially open-ended liability for firms.lxiv The absence of innovation within the system indicates a poorly-functioning regulatory regime.

5.2.0 **Accounting** continues to shape investment strategies, for example by incentivising Private DB schemes to 'de-risk'. The biggest impact that accounting standards have had on the UK investment system has of course been on the Private DB sector where IAS19 has introduced volatility into sponsor balance sheets. This has incentivised DB schemes to adopt matched low-return investment strategies which has, in turn, increased the cost of providing DB pensions and contributed to their closure to new members and future accrual and the 'derisking' of their investment strategies more generally.

5.2.1 It is too early to ascertain what impact IAS17 will have on insurance markets but the strength of incentivisation on the investment system is not dissimilar to IAS19.

5.2.2 **Risk management** is currently focused either on volatility risk or liquidity risk, neither of which are primary risks for long-term investment but both of which dominate investment strategies, risk models and approaches to institutional risk-sharing with clients.

5.2.3 Risk appetites, risk measurement and rewards for risk-bearing are all powerful incentives for the investment system.

5.2.4 The system's focus on volatility as a measure of market risk has incentivised low volatility investment strategies amongst asset owners who have sponsors with balance-sheets to protect. At a macro level a singular focus on volatility risk also has the potential to contribute to market and economic procyclicality.

5.2.5 While its focus on mark-to-market based measurement of guarantees and illiquid assets (especially primary investments) has disincentivized the emergence of risk-sharing business models, denying investors the benefit of risk-sharing with investment institutions (but also resulting in the market's general move towards capital-light risk-sharing models, if not the outright transfer of risk to savers.[82]

5.2.6 The attractiveness of various investment assets and asset classes is also strongly influenced by the capital weights that risk metrics ascribe to them.

"Whenever you try to work at scale, a set of common standards is almost a prerequisite... daily liquidity has been one such standard, and businesses are built around it."

5.2.7 **Market practices** have been built on but now sustain outdated norms and 'ways of doing things' (often knowingly and/or out of self-interest). Certain market practices and assumptions, together with supervisory practices, are also limiting innovation and ambition.

5.2.8 The instinct to remain close to market norms can be a powerful incentive for markets to develop along standardised lines. Competitive forces within markets are such that market practitioners utilise relative benchmarks for investment mandates and benchmark their performance against one another rather than against the objectives of their investors. Adherence to market norms has a reinforcing effect and disincentivises innovation or entrepreneurialism via a species of 'Tall Poppy Syndrome.'

5.2.9 Conversely, a 'Fear of Missing Out' (FOMO) on the latest investment trends has a similar standardising effect on market offerings as market practitioners design offerings based on what sells rather than what should sell or what is best for investors.

5.3.0 The quarterly cycle of peer comparison within the Asset Management channel (driven by analysts, MorningStar, Bloomberg, S&P or others) magnifies all of the above herding and standardising effects, calling out – as it does – each quarter's stars and dogs and encouraging fund over-weighting or under-weighting against an index rather than conviction of capital allocation or belief in a company as success metrics.

5.3.1 Finally, embedded norms sustain various industry practices beyond their natural 'sell-by' date – by acting as 'reinforcing' or 'positive' but false feedback loops. For example, DC schemes tend to pursue similar lifestyling strategies within default funds (shifting asset allocation from equity to cash between ten and five years ahead of pensioner retirement) because this is an established norm. The fact that this practice is a throw-back to days when DC accumulation led more directly into annuity purchase – and that pension freedoms now allow much better alternatives (remaining invested in equity well into retirement) - has not been sufficient to dislodge the practice.

5.3.2 **Tax** continues to shape investment decisions and product design choice. Tax incentives are fundamentally important drivers of investment behaviour in encouraging savers to invest in the first instance (Stocks and Shares or Cash ISAs over deposit accounts) but also in governing flow towards or away from asset classes within investment mandates. Where the EIS and VCT regimes incentivise flow towards start-up and scale-up assets respectively, the existence of stamp duty / SDRT disincentives investment in UK equity relative to global equity.

5.3.3 For example, the decision (at the Autumn Budget) to bring unused DC pension schemes within scope of the Inheritance Tax (IHT) regime from April 2027 is predicted to encourage DC pensioners to spend-down their DC pots first rather than last in a decumulation strategy. It might also encourage higher rates of annuitisation as a means of 'spending' DC pots before death. These changes are likely to have a considerable impact both on the quantity of flow of capital from DC schemes into UK equity (as DC schemes convert to spendable cash rather than remaining invested in equity) and on the quality of that flow (as annuity companies invest more heavily in the gilt markets to meet higher demand). In other words, the Budget's IHT reforms look likely reinforce the 'grain' of a DC system that already takes investment off-risk and towards cash at retirement (away from pension freedoms and towards gilt allocation), when what the system needs is precisely the opposite – the pensions freedom to remain allocated to equity for longer.

5.3.4 In the Capital Issuance channel, tax considerations also continue to incentivise corporates to issue debt over equity.[83]

> "Everyone's so scared of risk that no one's getting any return."

5.3.5 Our analysis also identifies five places where incentives within the UK investment system are weak and need strengthening, or missing completely:

5.3.6 **Return-seeking in the Investment Pooling channel is weak if not completely absent** - with other motives such as cost, liability and capital riskiness frequently trumping return-generation as the prime motivation of asset allocation.

> "Regulators don't love equity. I don't care what they say. They simply don't like equity. They treat equity as a very high risk alongside crypto-type world."

5.3.7 It is a fundamental oddity that Investment Pooling channel asset allocation is incentivised by a whole host of forces other than the provision of optimal returns to savers and pensioners. And yet, both the occupational and retail sub-channels of the Investment Pooling channel are predisposed to think first about cost, day-to-day liquidity management, peer comparison and their own liability as fiduciary agents, and only second about appropriate returns to investors – if at all.

5.3.8 The reasons for the de-prioritisation of returns within investment system dynamics are complex and manifold. The trend stems in part from legal or regulatory requirement for market participants to prioritise non-return-seeking obligations over return-seeking-obligations (for example, as a result of retail investor protection regulations that prioritise capital-security over capital returns) and the way in which fiduciary duties have been interpreted legally. But the trend also belies a more fundamental failure of financial services policy to grasp the correct balance or trade-off between reward and risk within the investment system in the first instance.[84]

5.3.9 This is clearly a fundamental weakness within the UK investment system, given investor returns are a reflection of economic growth and a powerful driver of capital allocation. While stability should clearly remain a goal for the UK regulatory system, Lord Jonathan Hill's 'stability of the graveyard' is no use to either UK savers or the UK economy. Regulators (both as rule-makers and supervisors) need to take a much more balanced approach to risk and reward than they currently take – or are permitted to take by their own governing principles.[85]

5.4.0 **The Private Equity markets lack transparency** at a point when there is a considerable shift from public to private equity investment.

5.4.1 **There are material gaps in certain markets** - that need closing and yet there is weak or missing incentivisation for the market to innovate.

5.4.2 Key gaps include low-cost financial advice and especially that powered by technology, despite strenuous efforts by the FCA to encourage innovation through use of their 'sand-box'. Few decumulation solutions exist nearly a decade after the introduction of 'Pensions Freedom'. There are also very few products currently being sold that share investment risk with consumers or provide any form of guarantees.

5.4.3 **The system is very poor at accounting for externalities**, including the future upside of productive and sustainable investment. This makes it hard to understand the true costs and benefits of investment activity.

5.4.4 How externalities are reflected in corporate profits (or, more specifically, how they are not) can incentivise how corporates interact with their natural and social economies.

5.4.5 We welcome the fact that corporates are increasingly being required to account for the previously un-accounted ('externalised') impacts their operations have on the environment and society. Through non-financial disclosure requirements and supply-chain accountability, corporates are now required to 'internalise' such externalities on their balance-sheets where they can be made accountable for their correct management.

5.4.6 However, the way in which corporates are required to account for their sustainable, social and productive investment is flawed because it only tells half the story. It accounts for the 'cost' of productive investment at the point of investment but does not account for the corresponding 'value' delivered in the future – effectively inverting the incentive to commit capital by making productive and sustainable investment projects seem costly but valueless.[86]

5.4.7 The non-financial data that corporates are required to share with investors is also limited largely to their sustainable or green investment (via the ISSB or UNPRI standards). In order to encourage the flow of capital towards 'productive investments' corporates will need to report on 'productive metrics' too – as well as at the level of the 'value' rather than simply the 'cost' of such investment.

5.4.8 We welcome the government's new fiscal framework and rules for this very reason. By including illiquid infrastructure investment as an asset as well as a liability in the proposed new Public Sector Net Financial Liabilities (PSNFL) metric, the UK government itself is free(r) to reflect both the cost and value of infrastructure and other productive investments on the national balance-sheet. It moves the UK closer towards what Willem Buitler and others have recently termed 'public net worth' as distinct from 'public net cost'.[87]

5.4.9 We simply argue that UK corporates should be freed up in the same way so that 'warrior accountants' and 'activist bean-counters' are freed up to determine the true value of UK companies engaged in sustainable and productive re-investment (and those that are not) and 'productive' investors can allocate accordingly.[88]

5.5.0 **The UK has lacked an Industrial Strategy** making it difficult for the investment system to understand where it might 'crowd in' UK savings alongside public money, and under what conditions (in the form of government sponsorship, incentivisation or co-investment). A clear industrial strategy is a pre-requisite for building a strong pipeline of investible productive projects for both domestic and foreign investment alike.

5.5.1 The publication of the **Invest 2035: the UK's modern industrial strategy** is therefore a very welcome development. However, we remain concerned by the Office of Budget Responsibility's comments that the size of the Government's own spending announced at the Autumn Budget risks leading to the 'crowding out' rather than 'crowding in' of private investment. We think that any investment strategy needs to be read through both a demand-side and supply-side lens – focusing as much on the attractiveness of the strategy to both domestic and foreign capital as on the eight proposed growth-driving sectors.

"Volatility isn't relevant to retirees. Sequence risk, longevity risk, and even the 'life-stage optimization risk' matter more than paper losses."

Feedback Loops

5.5.2 The UK investment system's patterns of incentivisation and its feedback-loops are therefore key 'leverage points' for effecting reform. Appropriate intervention could comprise introducing new (perhaps 'aspirational' or 'new-directional') feedback into the system or by re-engineering existing feedback loops to drive more productive system behaviour.

5.5.3 Particular feedback loops get in the way of the desired saver and societal outcomes. They lock in ingrained behaviours and require adequate leverage to shift such behaviours. Most notably:

- DB accounting standards have led to short-termism in DB scheme investment mentality.[89] Artificial volatility from liability measurement has pushed assets towards bond investments and leveraged LDI strategies. This has been reinforced by both regulation and accounting creating herding behaviours, both obscuring and creating systemic risk via asset concentration, which will only increase with the current rush to buy-out.
- An over-focus on cost in DC and Retail/Private investment has led to both a passive mindset and helped to drive consolidation within the asset management industry. Global approaches to asset allocation, adopted by larger asset managers, have reduced investment in the UK economy, in turn diminishing the UK share in global indices. Industry approaches to 'relative' benchmarking and diversification-seeking further drive the adoption of global indices in setting pension scheme allocation, which reduces investment into the UK.
- A system-wide focus on short-term volatility over long-term risks has contributed to risk-reward aversion among a wide range of stakeholders which in conjunction with regulatory safetyism has created a market driven to minimise risk rather than to find the appropriate trade-off between risk and reward/return

5.5.4 These feedback-loops operate to amplify and lock-in behaviours and are therefore the key 'leverage points' for effecting reform.

5.5.5 Consolidation of the pension fund industry is needed to reduce herding by creating asset owners of substance. The strength of the Canadian investment system derives from having five pension funds each with over £100 billion of assets and three of the top 15 global life insurers. The weakness of the UK investment system derives from having none of either.

5.5.6 The low-cost, short-term, passive, secondary investment mindsets are promulgated through the construction of investment mandates. To counteract this, we need to re-incentivise return-seeking, reduce the incentives driving low-cost investment, and reduce short-termism by requiring investment mandates to reflect the duration of savers actual requirements for access to their investments; this latter requires reducing the incentives behind liquidity-seeking.

5.5.7 Achieving a better balance between risk and returns requires revisiting risk measurement and the regulatory and accounting drivers that drive safetyism. Investment in UK primary investment requires new incentives.

6 Reforming the System

Conclusions and Recommendations

The real system is interconnected, dynamic, bounded, rationalising, and self-preserving. That's why we can't blame just one villain or look for just one hero.

Leverage points are points of power... [or] places within a complex system where a small shift in one thing can produce big changes in everything.

- Donella Meadows

Political Opportunity

6.0.1 Effective policy measures must target and counteract such ingrained industry practices for the UK to rebuild a growth economy to the benefit of all. We make the following recommendations, which have been designed to address the problems described above, and specifically target DB scheme fragmentation, lack of asset owner agency, lack of return incentives and poor risk management, as well as reincentivising investment in UK businesses.

6.0.2 The new Government's desire to place UK sustainable economic growth at the top of its agenda, and to view the stock of UK savings and investment as a key driver of this growth, is a welcome recognition of the investment system's central role in driving sustainable growth and better working-lives, and in improving intergenerational fairness within a more resilient domestic framework.

6.0.3 NCC believes the reform agenda needs to be purposeful, ambitious and courageous if it is to take effective hold.[98]

Purposeful – Rooted in the Investment System's Social Function

6.0.4 The first guiding principle for effective reform of the UK investment system is that it needs to be targeted towards a clear and shared sense of 'purpose' for the system.[99] If reform does not impose a teleological goal of its own on the system, the system will continue to deliver only its own 'emergent' and self-serving version of its own 'purpose'.[100] It will continue to evolve blindly rather than develop by social design.

6.0.5 'Purposeful' reform of the investment system therefore needs to re-start with fundamental questions about the social function, utility or licence of the investment system as located within society. It must acknowledge that the investment system exists first and foremost to serve society and social aspirations via its intermediating function: the UK investment system is the 'servant of the people' via the intermediation it provides, and not a profit-centre for the 'masters of the universe' – to use John Kay's terminology.[101]

"The idea that statutory retirement age defines life stage is outdated. We're wasting time—an essential investment commodity—by not considering a modern life-stage typification."

6.0.6 Where previous governments have tended to view the investment system either as a source of taxation or systemic risk, the new Government has the opportunity to recognise its more fundamental function as a critical financial intermediator, channelling money from the UK savings and investment stock to UK firms in need of growth capital.

6.0.7 Such a view correctly locates the investment system at the centre of a what could be a virtuous spiral for the UK economy – with higher rates of investment driving a more productive economy in turn driving higher rates of investment.

6.0.8 We think it is also perfectly in line with a distinctly new Labour government's philosophy of harnessing capitalism and market dynamics for the greater good. As Will Hutton writes, the new Labour Government has the opportunity of pressing on with a 'New Liberal' or 'Ethically Socialist' agenda in which the markets are harnessed for social good – rather than being allowed free reign (under Neo-Liberalism) or falling subject to state control (under Socialism): "We live on a tight-rope – too much surrender to capitalism and society is harmed; too much constraint on capitalism and it cannot do its work." As Hutton concludes, "creative public philosophies are needed to achieve the right balance" in this respect.[112]

6.0.9 So too, with reform of the UK investment system: too much surrender to the system and it will continue along its dysfunctional path; too much constraint on the system and we risk losing its dynamism altogether.

6.1.0 The productive reform agenda also needs to grapple with the definition of 'productive finance' per se:

- At one level, reform must be productive for both UK savers and investors and the UK economy simultaneously. It cannot prejudice the needs of one over the needs of the other - for example, by treating the Investment Pooling channel simply as a source of funding for UK growth aspirations as if UK pension schemes are automatically obliged to deliver some sort of 'national service' to the economy.[113]

- At another level, reform needs to settle on a definition of a 'productive' as distinct from a 'non-productive' investment. Our analysis therefore seeks to distinguish between 'productive' and 'non-productive' asset allocation by focusing on primary, over secondary, investment; and on directing investment towards companies with growth strategies (R&D, expansion, upskilling etc.) over those more mature companies pursuing high dividend payment or share buyback strategies. However, we offer this view only as a starter-for-ten and think the issue needs wider debate.

6.1.1 One of the powerful characteristics of being able to distinguish between 'green' and 'nongreen' asset allocation is the ability to trace the effect of 'green' financing directly into social action - for example, via the UK Green Financing Allocation and Impact Report which effectively acts like an X-Ray tracking the progress of green funding from allocated capital to sustainable change like a barium meal.[114]

Ambitious – a Whole-of-System Solution

6.1.2 The second guiding principle for any new philosophy of the investment system is that it needs to encompass the investment system as a whole and in its entirety.

6.1.3 Systems Theory recognizes how systems are governed not from a single guiding-spirit at the centre (a hero or villain), but rather by the interplay of myriad system effects acting without goal, intent or often even reason. There is no heroism or villainy to system effects, just the system being a system.

6.1.4 So too there are no singular and reformable heroes or villains within the UK Investment System.

6.1.5 The second task of the UK productive reform agenda is therefore to acknowledge that this is the case, to forgo the political convenience of 'silver bullet' thinking and to work at the level of the system itself – in all its messy reality.

6.1.6 We also need to retain the reality that the UK investment system is not ultimately a 'closed' system (existing solely to convey UK investment capital to UK growth ambitions) but rather a system that is 'open' both to accepting FDI and to allocating UK investment capital overseas. UK policymakers are right to adopt 'closed' thinking in the short term – effectively shortening the UK's financial supply-chains under a 'Secureonomics' agenda that also jibes with the current geopolitics of sovereign self-protection.[115] However, the true value of the UK investment system remains in its 'openess' to the world. 'Closed' UK policy reform therefore needs to retain the best qualities of 'openess' at the same time.

Courageous – A Deep-As-Well-As-Shallow Change Agenda

6.1.7 The third and final guiding principle is that a new philosophy of the system needs to embrace both 'deep' and 'shallow' reform simultaneously.

6.1.8 While fundamental reforms to the system's mindset, power structure, rules and culture might bring about deeper change, the system itself is likely to resist such axiomatic or archetypal intervention as existential threat or 'too hard to deliver'.

6.1.9 Conversely, while shallower reforms within the system might be more deliverable (because more palatable to the system) they will have less overall impact against political objectives because they will fall short of questioning the fundamental modus operandi of the system itself – choosing to work within rather than to challenge its logic.

6.2.0 Effective reform requires both deep cultural and shallow technical change simultaneously. The UK investment system is clearly as much a product of the mindset, culture or expectations of its practitioners as it is of the regulatory rules that shape it at a technical level and so we must design changes to the system alongside changes within it.

6.2.1 The third fundamental task of the UK productive reform agenda is therefore to have the ambition to attack the sources of the system's own 'deep' cultural and even behavioural dysfunction, proposing changes to the system alongside 'shallow' or technical changes within the system.

6.2.2 More sweeping cultural turns will be harder to effect than tighter technical interventions, and they will likely face more pushback from ingrained industry and political interests.But these are the longer levers which are capable of having more impact.

Recommendations

6.2.3 Our approach to deriving recommendations has been to:

- Listen to market participants from all parts of the investment system
- Analyse and derive key learnings from the main channels
- Identify key incentives/feedback loops/ market structural problems
- Understand the reality of current political constraints and where industry thinking is.
- Develop draft recommendations.

6.2.4 Recommendations have been designed to address the problems described in Section 4, and specifically target DB scheme fragmentation and lack of asset owner agency, lack of return incentives and poor risk management, as well as reincentivising investment in UK businesses.

6.2.5 We have focused upon those actions that will have maximum impact with minimum dislocation, by focusing upon leverage points within the system. We have also considered political accountability, noting that the 'Overton window' has changed with the election of a new government.

6.2.6 However, the current level of stasis within the system is such that some disruptive change will be required, if the culture of the system and economy is to change to become a 'growth economy'. Our longer-term recommendations describe changes needed to the regulatory structure which are needed to recreate the type of risk-culture needed to address the problems of the next few decades, noting that regulation is the primary mechanism available to government to achieve change.

6.2.7 As with our schematic of the UK investment system, these recommendations are designed to stimulate debate. We welcome all feedback.

"We have created a bureaucracy of regulation. And that does hinder...."

Focus areas for reform

6.2.8 Consolidation of the pension fund industry is needed to reduce herding by creating asset owners of substance. The strength of the Canadian investment system derives from having five pension funds each with over £100 billion of assets and three of the top 15 global life insurers (by market capitalisation). The weakness of the UK investment system derives from having none of either.

6.2.9 Low-cost, short-term, passive, secondary investment mindsets are promulgated through the construction of investment mandates. To counteract this, we need to re-incentivise return-seeking, that counteracts the dynamics currently driving low-cost investment, and reduces short-termism by requiring investment mandates to reflect the duration of savers actual requirements for access to their investments; this latter requires reducing the incentives behind liquidity-seeking.

6.3.0 Achieving a better balance between risk and returns, requires revisiting risk measurement and the regulatory and accounting drivers that drive safetyism. Investment in UK primary investment requires new incentives.

Key Reform Recommendations

6.3.1 The new Government has got off to a good start with some long-term vision (GB Energy, a National Wealth Fund and a reinvigorated British Business Bank); the publication of an Industrial Strategy; a Global Investment Summit reaching out to the world's biggest investors; a Pensions Investment Review led by a Minister sitting across DWP and Treasury; and an Autumn Budget that looks likely to have a number of systemic effects on the DC Investment Pooling channel. Recent announcements on LGPS, DC consolidation and an ongoing focus on 'value for money' in DC are also vital steps in the right direction.

6.3.2 However, while this reform agenda is ambitious it does not primarily focus on the actual incentives, dynamics and practices that drive the system and that reform needs to address if the UK is to rebuild a sustainable growth economy to the benefit of all. Against this background, NCC makes the following recommendations, while acknowledging that no single policy action will be sufficient or provide a 'silver bullet':

Targeted interventions

6.3.3 **Facilitate the consolidation of private DB pension schemes –** placing DB superfunds on a statutory footing in the forthcoming Pension Schemes Bill, and permitting life insurers to set up Superfunds outside their Solvency II ring-fences - to sit alongside other existing and new providers of capital. 5000 sets of Trustees managing £1.2 trillion of assets is highly inefficient, leads to uniform investment strategies and industry herding, which the rush to buy-out will intensify. Superfunds will operate under pension scheme rather than Solvency II rules, effectively freeing up Superfunds with high-quality investment skills and resources (and pursuing a run-on strategy) to make primary investment and investment in illiquid assets. Life insurers are natural consolidators and will block the changes needed if not permitted to participate.

6.3.4 **Remove the requirement for daily liquidity in the DC and Private / Retail Investment markets –** on the grounds that the benefits of daily dealing (immediate subscription / redemption) are increasingly outweighed by the cost that a daily liquidity mindset brings to asset allocation, and the inhibiting effect on primary investment in real assets.

6.3.5 **Change the system risk culture by revisiting regulatory and industry risk measures to free up investment strategies and support institutional risk-sharing with clients –** beginning with the system's current unhealthy focus on volatility and liquidity risk at the expense of duration risk and risk to returns. DB schemes should be given greater investment flexibility and DC schemes should be encouraged to seek performance rather than low cost through the planned Value for Money regime and by updating the guidance to employers on the choice of a suitable DC default fund for their workplace scheme. Mechanisms also need to be introduced to support pensions schemes 'run-on' strategies – to extend investment durations and reduce unhealthy derisking. This has the potential to deliver a win-win-win for the UK: improved profits for businesses; improved products and services for consumers (as well as innovative solutions for the environment and society); and improved investment returns for pensioners.

6.3.6 **Change tax incentives/disincentives to operate at the asset level as well as at wrapper level – t**o boost the appeal of productive UK investment and to put equity investment on a par with debt investment. Savers are rightly given incentives to invest, but not to invest in the UK, to support the communities in which they live and will most likely retire. Re-establishing the social contract between society and savers is an appropriate quid pro quo for the valuable tax incentives provided

A Re-Imagined Regulatory System

6.3.7 Change is also needed to create the right regulatory incentives for a sustainable growth economy. The current system is only a decade old but was designed to address problems caused by the Global Financial crisis, not the challenges of the next two decades. The industry is already suffering regulatory fatigue so changes will need careful management to achieve buy-in. In the interim, change to regulatory oversight is essential - it is unreasonable to expect regulators to set the rules and also assess the effectiveness of the rules they have themselves imposed on others.

6.3.8 The fragmented and over-complex regulatory system also needs redesign at an architectural level. As we explain in Section 1 the current regulatory architecture is itself over-complicated, fragmented and lacks accountability against system purpose.

- **Short term**, we recommend extending the role of the Regulatory Innovation Office to have responsibility for system oversight measured against system purpose – beginning with a system purpose that delivers on social goals for individuals, the economy and society; while recognising
- **Longer term**, we recommend review of the regulatory architecture and its modus operandi; a rebalancing the role of regulators to create the right trade-off between the achievement of savers' objectives, the security of institutions, democratic parliamentary accountability and a rationalising and modernising of the regulatory approach.

6.3.9 The end result of these recommendations could be transformative:

- A more resilient UK economy and sovereign state;
- Better retirements because of bigger investment pots;
- More UK investment to provide the capital needed to develop green infrastructure for sustainable growth; and
- A growing economy, providing better, more productive jobs.

Notes

Executive Summary

1. We view our work as part of the 'heterodox' challenge to / correction of 'orthodox' economic theory and orthodoxy's tendency towards over-rational, over-simple and over-neat conceptions of economic operation (such as the concepts of Efficient Market Theory (EMT), Expected Utility Theory, *homo economicus* and 'the invisible hand' of the market). In his *Irrational Exuberance* (NY, 2001) Robert Shiller argues that speculative bubbles develop for structural reasons, grow for cultural reasons and find their natural boundaries (and burst) for psychological reasons. In other words, markets become exuberant (itself an impossibility within EMT) because of the innately 'irrational' *modus operandi* of the human agents who make up the financial system. Following in the footsteps of Shiller, NCC contends that the UK investment system is currently suffering from an 'Irrational Conservatism' that has similar roots to Shiller's 'Irrational Exuberance' in the system's market structure and 'feedback loops'; in the system's belief-systems and mindsets; and in the human psychology of individual market actors.

   In terms of 'heterodox' challenges to 'orthodox' economic assumptions, Herbert Simon introduced the concept of the market's "bounded rationality" in the 1950s as a shorthand for his brief against neoclassical economics and his call to replace the perfect rationality of EMT with a conception of rationality tailored to "cognitively limited agents" – that is, to homo sapiens rather than homo economicus. See: *Administrative Behaviour: a study of decision-making processes in administrative organisations* (NY, 1947); and Bounded Rationality (MIT, 1982).

   Amos Tversky and Daniel Kahneman extended Simon's logic into 'behavioural economics' in the 1970s. See: '*Judgment Under Uncertainty: heuristics and biases*', in Science 185 (1974): 1124-1131; and 'Advances in Prospect Theory: cumulative representation of uncertainty' in *Journal of Risk and Uncertainty* 5 (1979): 297-323. Richard Thaler and Cass Sunstein added the concepts of 'choice architecture' and 'libertarian paternalism' (or 'nudging') when they popularised behavioural economics in Nudge: improving decisions about money, health and the environment (London, 2008) as Thaler sets out in *Misbehaving: the making of behavioural economics* (London, 2015).

   Sanford Grossman and Joseph Stiglitz developed a critique of EMT in the 1980s by arguing that if markets were truly efficient there would be no incentive for information-gathering – as there clearly is contra Eugene Fama's view that markets are 'informationally efficient' because prices always incorporate all available information. For Fama's belief in market efficiency (which significantly influenced the emergence of index funds) see: '*Efficient Capital Markets: a review of theory and empirical work*' in The Journal of Finance 25:2 (1970): 383-417. For Grossman / Stiglitz's rebuttal, see: '*On the Impossibility of Informationally Efficient Markets*' in The American Economic Review 70:3 (1980): 393-408.

   In *Narrative Economics: how stories go viral and drive major economic events* (Princeton, 2019) Robert Schiller continues to debunk Fama's theory of an 'informationally efficient' marketplace, replacing it with an 'informationally competitive' one in which investors compete for market information as fiercely as they compete for actual assets. But he also argues that market events are driven as much by human narratives as by market data. The 'stories we tell ourselves' do more than simply describe the economic events around us – in terms of bubbles, crashes, recessions and panics – Shiller maintains: they actively shape the economic behaviour that produces these same events by encouraging investors to follow the prevailing narrative rather than the underlying data. Shiller's insights are important

   Finally, Karl Polyani has long argued that markets are inherently embedded in social relations and institutions, and thus argued against the "economistic fallacy" that reduces all economic behavior to rational, profit-maximizing actions. *In The Great Transformation* (1944) Polyani rejects the idea that markets can exist as separate, self-regulating entities divorced from society, and instead posits the concept of 'double movement': as markets expand and attempt to self-regulate, society responds with protective measures to mitigate the negative effects. This ongoing tension between market expansion and social protection is therefore a central feature of market societies for Polyani and instructive for the current debate about UK political and regulatory risk appetite. Polyani's concept of 'fictitious commodities' is another important concept: Polyani argues that treating land, labour, and money as market commodities is problematic because they were not originally produced for sale. This commodification, he contends, can lead to social and environmental destruction if left unchecked.

   Kate Raworth effectively extends Polyani's insight in her *Donut Economics: seven ways to think like a 21st Century Economist* (London, 2017). In the book's central metaphor Raworth imagines the priorities of economic policy as a ring-shaped doughnut: the inner circle represents the "zone of deprivation" (an economy that does not produce enough of the necessary goods and services to sustain populations); the outer circle represents the limits of economic growth (beyond which the economy begins to outstrip the planet's natural and social resources). In this respect, Raworth is engaged in a (heterodox) 'Systems Theory' analysis of the discipline of orthodox economics itself. The outer edge of Raworth's doughnut (where the financial economy meets and effectively 'spends' environmental and social resources) is the particular focus of 'ecological economics'. See: Robert Castanza, John Cumberland, Herman Daly, Robert Goodland & Richard Norgaard, *An Introduction to Ecological Economics* (London, 2015) and Richard Wagner, *Macroeconomics as Systems Theory: transcending the micro-macro dichotomy* (London, 2020).

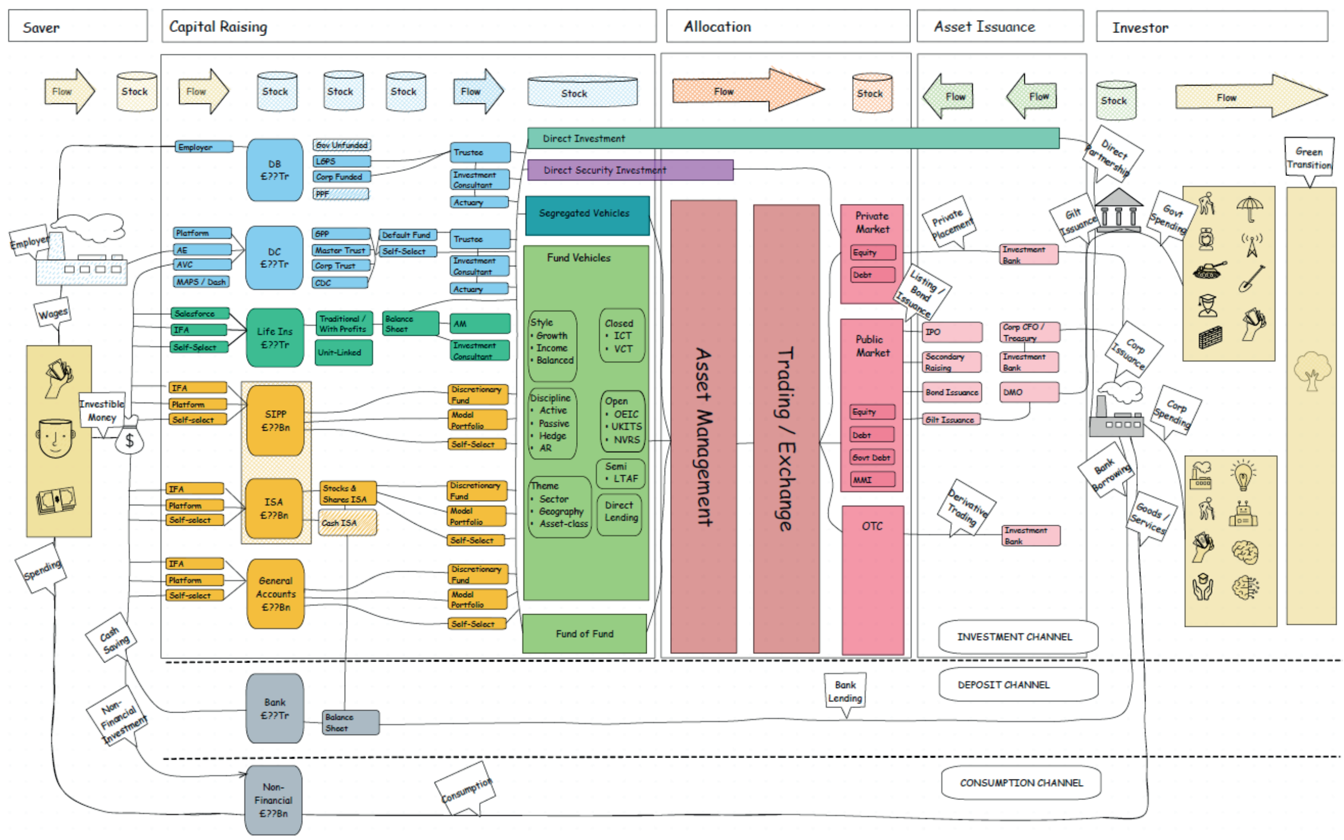
   For the most recent contribution to the heterodox / orthodox debate see: Nicola Gennaioli and Andrei Schleifer, *A Crisis of Beliefs: investor psychology and financial fragility* (Princeton, 2018), ch.7.

2. Not least within the EU policymaking machine (e.g. Lord Jonathan Hill). See: Anu Bradford, *The Brussels Effect: how the EU rules the world* (Oxford, 2020), ch.4.
3. For the hegemonic grip that traditional financial economic theory has on the design of markets and operation of regulation and supervision, see David Rouch: *The Social Licence for Financial Markets: reaching for the end and why it counts* (London, 2020). Rouch's point is that the hegemony of economic orthodoxy in academic and policy debate is itself the product of the discipline's strong reinforcing 'feedback loops'. These 'feedback loops' need breaking / re-orienting within the discipline if a more humane and environmentally responsible (heterodox) economic discipline is to emerge.
4. According to Systems Theory, "complex adaptive systems are nested; they exist as systems within systems. Each layer of these systems is coherent within itself and capable of interacting with systems at higher and lower levels. Each part of a complex adaptive system is in constant learning, adaptation, and evolution, and the system itself is capable of self-organization and emergence", Donella Meadows, Systems Theory: a primer (London, 2017). See also, L. von Bertalanffy, *General System Theory: foundations, development, applications* (London, 1968).
5. Nondesign is a term NCC has borrowed from architectural theory alongside undesign. See: James Pierce, '*Undesigning Interation*', in Interactions (2014) 21:4, 36-40. Where undesign is a conscious rejection of design principles, nondesign is when rational design principles do not apply in the first instance – as with complex adaptive systems that 'emerge' rather than being designed.
6. In Systems Theory 'emergence' refers to how complex behaviours or patterns emerge from the interaction of similar components. 'Wholeness' maintains that every system is more than the sum of its parts, while 'interdependence' maintains that each part of the system is interdependent on others – even when acting independently.
7. In Systems Theory 'mindsets' develop in systems and can frequently harden into axiomatic or archetypal ways of thinking ('this is simply what's done…'). 'Feedback loops' are the processes by which the output of a system influences its own behavior. Feedback can be positive (amplifying a process) or negative (stabilizing or dampening a process).
8. Daniel Dennett reminds us that evolution is blind, random and accidental (that is, nondesigned) rather than some form of 'natural design' in *Darwin's Dangerous Idea: evolution and the meaning of life* (NY, 1995).
9. Our approach takes some inspiration from 'organisational' or 'institutional' psychoanalysis as developed by the Tavistock Clinic. See: A Obholzer & V.Z. Roberts, *The Unconscious at Work: a Tavistock approach to making sense of organisational life* (London, 2019). Gillian Tett's *Anthro-Vision: how anthropology can explain business and life* (London, 2021) takes a similar approach, but the cutting-edge in the application of 'softer' (psychoanalytic and anthropological) disciplines to socio-economic problems can be found in approaches to climate change specifically. This is unsurprising given the man-made nature of the climate crisis itself (for example, Gaia Vince, *Adventures in the Anthropocene: a journey to the heart of the planet we made* (London, 2014)). See: Michael E. Mann and Tom Toles, *The Madhouse Effect: how climate change denial is threatening our planet, destroying our politics and driving us crazy* (NY, 2016); Gregory Bateson, *Steps to an Ecology of Mind: collected essays in anthropology, psychiatry, evolution and epistemology* (Chicago, 2000); and Adrienne Maree Brown, *Emergent Strategy: shaping changes, changing worlds* (London, 2017).
10. See: Geoffrey G. Parker, Marshall W. Van Alstyne and Sangeet Paul Choudray, *Platform Revolution: how networked markets are transforming the economy and how to make them work for you* (NY, 2016).
11. A retail / equity culture reform agenda should begin where UK citizens are already managing all other aspects of their lives – on tech-enabled online platforms: See Seth Stephens-Davidowitz, *Everybody Lies: what the internet can tell us about who we really are* (London, 2017); Edward C. Rosenthal, *The Era of Choice: the ability to choose and its transformation of contemporary life* (Cambridge Mass., 2005) and Bernard Marr, *Big Data: using smart big data analytics and metrics to make better decisions and improve performance* (Chichester, 2015). Conversely, see: Barry Schwartz *The Paradox of Choice: why more is less* (NY, 2004) and Shoshana Zuboff, *The Age of Surveillance Capitalism: the fight for a human future at the new frontier of power* (NY, 2019). It should then work with the incentives that dictate retail investment flow in particularly (and as distinct from institutional investment flow) – namely, advice / guidance / nudging and tax incentivisation.
12. Reform of the retail investment system also needs to interact more closely with the social contexts of savers, investors and pensioners as real people rather than as homines economici – for example, the increasing need to self-fund social care in later life or the changing dynamics of the housing market. Where the former alters the longevity risk dynamic that pensioners are required to manage the latter alters investors' liquidity risk dynamic. Intergenerational concerns will also need addressing.
13. See Benn Steil and Manuel Hinds, *Money, Markets, and Sovereignty* (Yale, 2009), ch.1.
14. '*Rebuilding the UK's Investment Strengths – a priority for the new government*' (July 2024): https://www.herbertsmithfreehills.com/news/2024-07/rebuilding-the-uk-investment-strengths-a-priority-for-the-new-government.
15. Nassim Nicholas Taleb, *Anti-Fragile: things that gain from disorder* (London, 2012) and *The Black Swan: the impact of highly improbable events* (London, 2017).
16. Our original 'rich picture' was even more complicated (see opposite page). It was designed to be read simultaneously from the left-side inwards (money flowing from savers into the system) and from the right-side inwards (assets entering the system via capital markets or other forms of exchange) with the asset allocation industry sitting between the two movements fulfilling an intermediating or connecting role:
17. The concept of 'safetyism' was coined by Paul Collier to describe the way in which especially regulatory systems tend to reduce complex decision-making to over-simple check-boxes as a means of managing their own liability. 'Safetyism' for Collier is "the displacement of judgement by procedure" and has numerous systemic knock-on effects:

- Pretense of Complete Understanding: Safetyism operates under the false assumption that we can fully understand and control our environment.
- Risk Shifting: Instead of eliminating risks, safetyism often shifts risks from known areas to unknown ones, potentially creating more dangerous situations.
- Procedural Focus: It replaces human judgment with rigid procedures and tick-box rules, leading to decisions that may not consider the broader context or long-term consequences.
- Worst-Case Scenario Emphasis: Safetyism tends to focus exclusively on foreseeable worst-case scenarios, ignoring potential positive outcomes or more likely scenarios.
- Bureaucratic Self-Protection: While ostensibly aimed at protecting individuals, safetyism often serves to protect bureaucracies from liability rather than truly safeguarding people.

Collier's 'safetyism' might be viewed as a species of the 'unaccountability' that Dan Davies identifies arising in all complex organisations / institutions. See: Paul Collier '*Can Bureaucracies Ever Protect You?*' in Prospect (Nov 2023); and Dan Davies, *The Unaccountability Machine: why big systems make terrible decisions and how the world lost its mind* (London, 2024).

'Safetyism' in its strict sense has a structural character ("the displacement of judgement by procedure") but has been adapted recently to cover a generally perceived conservatism, risk aversion or even 'risk off' mindset at work in the UK regulatory system. For example, see: Brightwell's '*The Price of Risk Aversion for Defined Benefit Pensions Schemes*': https://brightwellpensions.com/our-insights/the-price-of-risk-aversion-for-defined-benefit-pension-schemes/.



18. Systems Theory has developed a hierarchy of leverage running from the least effective to most effective types of levers for use in system change:

- Least effective - Constants, parameters, numbers (subsidies, taxes, standards).
- Regulating negative feedback loops.
- Driving positive feedback loops.
- Material flows and nodes of material intersection.
- Information flows.
- The rules of the system (incentives, punishments, constraints).
- The distribution of power over the rules of the system.
- The goals of the system
- Most effective - The mindset or paradigm out of which the system — its goals, power structure, rules, its culture.

See: Donella Meadows, '*Leverage points: places to intervene in a system*' (1997): https://donellameadows.org/archives/leverage-points-places-to-intervene-in-a-system/.

19. See Lynda Gratton, *The Key: how corporations succeed by solving the world's toughest problems* (London, 2015) and Colin Mayer, *Prosperity: better business makes the greater good* (Oxford, 2018).

20. See: Minouche Shafik, What We Owe Each Other: a new social contract (London, 2021) chs. 5 & 6; and Mark Carney, *Value(s): building a better world for all* (London, 2021).

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21. Janet Yellen, '*Financial Stability a Decade after the Onset of the Crisis*', (Jackson Hole, 2017): https://www.federalreserve.gov/newsevents/speech/yellen20170825a.htm

22. Including but not limited to the Capital Markets Investment Taskforce (CMIT), The Tony Blair Institute, Resolution Foundation, New Financial, CityUK, IA, ABI, PLSA.

23. Thomas Hobbes most famously makes the link between the circulatory systems of natural bodies and bodies politic in Leviathan (1651): "For what is the heart, but a spring; and the nerves, but so many strings; and the joints, but so many wheels, giving motion to the whole body of State." See: Quentin Skinner, *From Humanism to Hobbes: studies in rhetoric and politics* (Cambridge 2018).

24. Felicia Odamtten and James Smith, '*Cutting the Costs - Resolution Foundation Economy 2030 Inquiry*'.

25. OECD 'Pension Markets in Focus – Preliminary 2022 Data'

26. "If Karl Marx were alive today, he would be in the British Library devouring everything he could find on pension funds: the new fuel of global capitalism", Robin Blackburn, Banking on Death Or Investing in Life: the history and future of pension funds (London, 2002). For example, see: Stephen Davis, Jon Lukomnik and David Pitt-Watson, The New Capitalists: how citizen investors are reshaping the corporate agenda (Harvard, 2006). See also: Jon Crudas, *The Dignity of Labour* (Oxford, 2021) and Oren Cass, *The Once and Future Worker: a vision for the renewal of work in America* (NY & London, 2018).

27. IPPR analysis of OECD (2023)

28. Ben Bernanke, "Financial Reform to Address Systemic Risk." Speech at the Council on Foreign Relations, Washington, D.C. (10 March 2009); and Robert Shiller, *Finance and the Good Society* (Princeton, 2012), p.12.

29. For disenfranchisement / re-enfranchisement, see: Eric Longergan, *Angrynomics* (London, 2020); Rebecca Henderson, *Re-Imaging Capitalism in a World on Fire* (London, 2020), chs 3 & 5; and Mark Fisher *Capitalist Realism: is there no alternative?* (London, 2022). Fisher applies Systems Theory to capitalism as a system itself, in line with Frederic Jameson's complaint that "it is easier to imagine the end of the world than it is to imagine the end of capitalism" – a particular focus of 'Ecological Economists'. See: Jameson, *Postmodernism Or the Cultural Logic of Late Capitalism* (London, 1991): "It seems to be easier for us today to imagine the thoroughgoing deterioration of the earth and of nature than the breakdown of late capitalism." Branko Milanovic follows Fisher's lead in applying Systems Theory to capitalism as a system in

Capitalism, Alone: the future of the system that rules the world (Harvard, 2019).

Peter Mair (and others) link the emergence of 'angrynomics' and other forms of extremism (left and right) to an increasingly absent middle space in politics – "democracy and indifference". See, Mair, *Ruling the Void: the hollowing out of western democracy* (London, 2013); Philip Coggan, *The Last Vote: the threats to western democracy* (London, 2013).

30. For intergenerational fairness, see: David Willets, *The Pinch: how the baby boomers took their children's future and why they should give it back* (London, 2010). Intergenerational fairness is an even more pressing concern in the worlds of sustainability and sustainable finance, prompting Kim Stanley Robinson to invent the concept of a 'ministry for the future' in his eco-thriller of the same name - *Ministry for the Future* (London, 2020). Set in the near future of 2025, KSR's fictional Ministry is tasked with advocating for future generations and ensuring their rights are recognized as equal to those of the present generation. The Ministry of the Future was created as a response to the failures of existing climate agreements, specifically after the Paris Agreement's signatories did not meet their targets. The potential for mission-creep away from Paris Agreement targets – and the effective 'externalisation' of the climate emergency to future generations – is covered by Andreas Malm & Wim Carton's *Overshoot: how the world surrendered to climate breakdown* (London, 2024). The authors trace the origins of overshoot to a 2003 OECD report and highlight that by the time of the 2019 IPCC Special Report on 1.5°C warming, 568 out of 578 scenarios cited deliberately overshot the target – effectively passing the buck back to the environment itself, to future generations or both – via 'externalisation'.

31. We would note that the Asset Management Channel is sometimes embedded within the Investment Pooling Channel (for example, with self-managing LGPS schemes or larger Private DB schemes). Notwithstanding this, the same logic applies.

32. Private DB, LGPS and DC pensions holdings are famously fragmented, but so too is the investment pool of Private Investment spread across the UK's 4,700 mutual funds.

33. Stocks are the accumulation of past events. They change over time through the action of a flow, but at any given time, a stock is like a flow frozen in time." Donella Meadows, *Thinking in Systems: a primer* (London, 2017).

34. "Neither do people pour new wine into old wineskins. If they do, the skins will burst; the wine will run out and the wineskins will be ruined. No, they pour new wine into new wineskins, and both are preserved", Matthew 9:17.

35. The 'fiduciary' duty of asset managers to operate within client mandate is often raised as a barrier to attempts to 'mandate' (rather than 'incentivise') more productive allocation from them. Similarly fiduciary duties owed to beneficial owners by asset owners (pension funds) raises barriers to effective mandating.

36. Herman Brodie and Klaus Harnack lay these dynamics bare, albeit accidentally, in *The Trust Mandate: the behavioural science behind how asset managers really win and keep clients* (London, 2018).

37. "Point me out the happy man and I will point you out either egotism, selfishness, evil – or else an absolute ignorance of the way the world works", Graham Greene, *The Heart of the Matter* (London, 1948).

38. Wicked problems are complex, multifaceted issues that are difficult or impossible to solve due to their interconnected nature, incomplete information, and the involvement of diverse stakeholders with differing perspectives. They often lack a definitive formulation (defining the problem is part of the problem itself); have no clear point at which a solution is fully reached; deal in 'better' or 'worse' solutions (rather than 'true' or 'false' ones) and are unique in nature. For 'wicked problem' theory as first espoused (in the context of town planning) see H.W.J. Rittel and M.M. Webber, *Dilemmas in General Theory of Planning' in Policy Sciences* (1973) 4(2): 155-69.

39. For sensitive approaches to the 'wicked problems' of climate, poverty and healthcare reform, see: David Archer and Stefan Rahmstorf, *The Climate Crisis: an introductory guide to climate change* (Cambridge, 2009); Jeffrey D. Sachs, The End of Poverty: how we can make it happen in our lifetime (London, 2005); Amartya Sen, *Development as Freedom* (Oxford, 2007); Steven Brill, *America's Bitter Pill: money, politics, backroom deals, and the fight to fix our broken healthcare system* (NY, 2015).

40. For example: John Allison, *The Financial Crisis and the Free Market Cure: why pure capitalism is the world economy's only hope* (NY, 2012); Matthew Hollow (ed.), *Complexity and Crisis in the Financial System: critical perspectives on the evolution of American and British Banking* (London, 2016)

41. For example: Himmo Soramaki and Samantha Cook, *Network Theory and Financial Risk* (London, 2016); Prasanna Gai, *Systemic Risk: the dynamics of modern financial systems* (Oxford, 2013).

42. For example: John Sterman, Business Dynamics: systems thinking and modelling for a complex world (NY, 2000); Stephen Davis, Jon Lukomnik and David Pitt-Watson, *What They Do With Your Money: how the financial system fails us and how to fix it* (Yale, 2016); John Kay, Other People's Money: masters of the universe or servants of the people (London, 2017).

43. Nick Silver, *Finance, Society and Sustainability: how to make the financial system work for the economy, people and planet* (London, 2017).

44. Long levers represent high-impact points in a system where small, strategic interventions can produce substantial and lasting changes. These levers are typically associated with deep structural changes or paradigm shifts. For example, altering the goals, rules, or system structure can serve as long levers. Indeed, modifying the mindset or paradigm out of which the system arises is one of the most powerful long levers available to policymakers, enabling them to challenge the assumptions, beliefs, or values that shape the system's operation. But long levers are harder to pull for this very same reason.

Short levers, on the other hand, involve more immediate and often less impactful changes. These levers usually address symptoms rather than root causes. Examples include adjusting parameters, such as setting specific targets or modifying resource allocations. Reforms to the investment system might therefore be conceived of as either 'deep' or 'shallow'(or as changes 'to' or 'within' the system), according to the length of the lever that can be brought to bear. For example, altering the goals, rules, or system structure can serve as long levers. Indeed, modifying the mindset or paradigm out of which the system arises is one of the most powerful long levers available to policymakers, enabling them to challenge the assumptions, beliefs, or values that shape the system's operation. But long levers are harder to pull for this very same reason.

45. We have been careful to avoid Nassim Nicholas Taleb's criticism of a priori approaches: "Janet Yellen at the FED is equivalent to having a biology schoolteacher who has never seen blood perform brain surgery" in The Epoch Times (2017).

2 The System Conceptualised

46. Harvey describes the purpose of his public anatomy demonstrations as follows: "to show as much as may be at a glance… and afterwards to sub-divide the parts according to their position and relations… to cut up as much as may be in the sight of the audience [and] to state things briefly and plainly, yet not letting anything pass unmentioned which can be seen." See: Thomas McMullen, William Harvey and the *Use of Purpose in the Scientific Revolution: a cosmos by design* (London, 1993).

47. We agree with – but would amplify – David Pitt-Watson: "The financial system is not a product of deliberate design, but has been constructed politically over time. Many of the rules and institutions that govern it today reflect the balance of political power and the compromises made in various historical contexts, rather than what is economically optimal", in, *The Purpose of Finance: why finance matters: building an industry that serves its customers and society* (PIC, 2017), p.3

48. See: Gillian Tett, *The Silo Effect: why putting everything in its place isn't such a bright idea* (London, 2015).

49. See: Dan Davies, *The Unaccountability Machine: why big systems make terrible decisions and how the world lost its mind* (London, 2024).
50. We welcome the FSMA reforms to the PRA and FCA's secondary objectives in this respect. But we do not think these go far enough either in scope (e.g. the TPR) or ambition (e.g. their secondary and therefore subordinate nature).
51. See, Christian de Visscher et al, '*The Lamfalussy Reform in EU Securities Markets; fiduciary relationships, policy effectiveness, and balance of power', in Journal of Public Policy* (2008) 28:1, 19-47; Lucia Quaglia, *Governing Financial Services in the European Union: banking, securities and post-trading* (London, 2010),
52. See: Matthew Rhodes, *The Story of UK Pensions: an engaging guide to the pensions system* (London, 2021) and Hugh Pemberton, Pat Thane and Noel Whiteside (eds.), *Britain's Pensions Crisis: history and policy* (Oxford, 2006).
53. For 'dysregulation' see: Vaclav Smil, *How the World Really Works: a scientist's guide to our past, present and future* (London, 2022)
54. For classic / orthodox accounts, see: Mishkin, F. S., & Eakins, S. G. (2018). F*inancial Markets and Institutions* (9th ed.); Bodie, Z., Kane, A., & Marcus, A. J. (2014). *Investments* (10th ed.); Fabozzi, F. J., & Modigliani, F. (2009). *Capital Markets: Institutions and Instruments* (4th ed.); Merton, R. C., & Bodie, Z. (2005). '*Design of Financial Systems: Toward a Synthesis of Function and Structure*' in Journal of Investment Management, 3(1), 1-23; Cecchetti, S. G., & Schoenholtz, K. L. (2021). *Money, Banking, and Financial Markets* (6th ed.); Madura, J. (2020). F*inancial Markets and Institutions* (13th ed.).
55. We welcome the FCA's attention on this issue via Consumer Duty-based supervision.
56. Bank Policy Institute, 'Large banks could become "systemic maginot line", TCH president says in congressional testimony', (23 June 2016), available at: https://bpi.com/press-releases/large-banks-could-become-systemic-maginot-line-tch-president-says-in-congressional-testimony/
57. Any question about changing the nature of the UK investment system's operation within the wider global investment system would require a much more fundamental debate. Such a geo-political repositioning would require fresh debate around the nature of mandation, incentivisation and investment sources, as well as a wider analysis of the global investment system itself.
58. Investment products typically divide into open-ended funds and closed-ended funds. Open-ended funds are unitised with each unit being priced typically daily. Closed ended funds comprise a listed company investing in securities with the shares of the listed company been acquired by the capital pool.
59. We describe the activity of manufacturing investment product as Fund Management (FM) and the acquisition of securities as Portfolio Management (PM).
60. CMIT, TCUK, BVCA, ICMA, ABI.
61. IA 2024 stats.
62. Stephen Davis, Jon Lukomnik and David Pitt-Watson, *What They Do With Your Money: how the financial system fails us and how to fix it* (Yale, 2016), ch. 2.
63. A detailed breakdown of the calculations can be found in Table 4: Total Assets in the Retail Investment Sub-System.

3 The System Anatomised

64. Robert Persig, *Zen and the Art of Motorcycle Maintenance* (NY, 1974).
65. Again, we are following the 'Systems Biology' of William Harvey's 1628 de *Motu Cordis*. Harvey analysed "the anatomical disquisition" of various bloodflows to and from the human heart.
66. PPF Purple Book 2023
67. The PLSA DB Taskforce quantified critical mass at c. £30bn in 2016.
68. Bank of England Procyclicality Working Group paper 'Procyclicality and structural trends in investment allocation by insurance companies and pension funds" July 2014 quantified high levels of DB system herding. These are expected to have increased since 2014.
69. The total value of life insurance has been sourced from the Bank of England's Prudential Regulation Authority (PRA) dataset. Cash and stocks and shares data have been obtained from GOV.UK, while unwrapped investment figures are sourced from the Investment Association. It should be noted that life insurance data may be overstated due to potential double-counting with pensions and life insurance assets. Consequently, the total asset value in retail investment is presented as an approximate figure.
70. Please note that Long-Term Asset Funds (LTAFs) are OEICs (and in competition with EU ELTIFs). LDI strategies are applied to DB pension fund schemes via OEIC structures too (mostly domiciled in Dublin).
71. See, Cass Business School, 'Heads We Win, Tails You Lose' (July, 2014) and the Ontario Securities Commission (OSC), '*Mutual Fund Fee Research*' (April, 2015).
72. A report by PwC in July 2023 forecast that 16% of existing asset and wealth mangers will go out of business or be consolidated by 2027
73. For example, see Fidelity International's attempt to introduce a 'fulcrum fee' model (as proposed as a policy alternative by Cass) in October 2017: Attracta Mooney, 'Fidelity's New Fee Structure Tests Active industry – rivals under pressure as the asset manager moves to a performance-linked fund change in FT (6 Oct, 2017).
74. See: Andy Haldane, Alessandro Migliavacca & Vera Palea, '*Is Accounting a Matter for Book-keepers Only? The effects of IFRS adoption on the financialisation of the economy'*, in Cambridge Journal of Economics (May 2024): 489-512.
75. The Kay Review of UK equity markets and long-term decision-making. July 2012
76. Source; BVCA statistics

4 The System Speaks

77. Humbert Wolf, '*The Celestial City*' (1930).
78. A 'quilting point' (point de capiton) is a psychoanalytic term that describes a point of synergy, synthesis and sublimation for an individual. A point at which the sum of an individual's experiences are compressed and knotted together into a more meaningful and productive whole.
79. E. Williams & H. Patel, (2024). "*Defined Benefit Pensions and Elderly Poverty Reduction*." Harvard Economic Review, 88(1), 112-134. R. Thompson (2023). "*Defined Benefit Pensions and Social Cohesion*." Social Policy & Administration, 57(2), 134-150.
80. S. Kumar & A. Lee 2023). "*Health Outcomes Among Retirees with Defined Benefit Pensions*." American Journal of Public Health, 113(4), 540-556. L. Chen (2023). "Workforce Stability and Defined Benefit Plans." Journal of Pension Economics and Finance, 45(3), 202-218. International Social Security Association. (2024). Global Overview of Pension Plans and Retiree Satisfaction. ISSA
81. Smith, A., & Johnson, B. (2023). *Economic Benefits of Defined Benefit Pensions*. Economic Policy Institute. Doe, J., Roe, M., & Loe, S. (2024). "*The Impact of Defined Benefit Pensions on Regional Economic Stability*." Journal of Retirement, 31(2), 45-67.
82. Green, F., & Harlow, C. (2024). "*Sustainability of Defined Benefit Pension Schemes in an Aging World*." Oxford Journal of Economic Policy, 40(1), 76-98.
83. 15-20% allocation to UK investment.
84. Institute and Faculty of Actuaries: The Great Risk Transfer (2020)
85. See: Paul D. Armson, *Enough: how much money do you need for the rest of your life?* (London, 2016).
86. See: Cass Business School, '*The Impact of RDR on the UK's market for financial advice: challenges and opportunities*' (June, 2013).
87. Railpen and USS, plus some of the LGPS funds have models which could be utilised more widely.

5 The System Analysed

88. A balancing or negative feedback loop might involve a thermostat regulating the temperature of a room, while a reinforcing or positive feedback loop could describe the growth of a population where more births lead to more people who can have more children.
89. Herman Brodie and Klaus Harnack lay this dynamic bare albeit accidentally, in *The Trust Mandate: the behavioural science behind how asset managers really win and keep clients* (London, 2018).
90. For example, financial bonuses for meeting performance targets in a company are considered strong incentives because they have a direct, immediate impact on employee motivation
91. For example, suggesting voluntary participation in a wellness program without any direct benefits or consequences may be seen as a weak incentive, as there is little motivation for individuals to change their actions.
92. The original 'great risk transfer' that the Institute and Faculty of Actuaries (IFoA) identify was from a 'defined' to an 'undefined' retirement experience as pensioners migrated from DB to DC and assumed longevity and market risk from employers. Since then, the pension industry has continued to transfer risk on behalf of its pensioners though often without their understanding or even knowledge (e.g. to banks via LDI, to insurers via Bulk Purchase Annuity (BPA)). The ramifications of each of these 'lesser risk transfers' – for pensioners, asset allocation and the UK economy - need understanding alongside the original 'great risk transfer'. See: https://actuaries.org.uk/thought-leadership/thought-leadership-campaigns/great-risk-transfer/
93. The EU's Debt Equity Bias Ratio Allowance (DEBRA) initiative was established to address this problem across the EU's capital markets, although it has since run into the long grass.
94. There is a growing call to introduce so-called 'normative' accounting into both national and corporate balance-sheet accounting. Most recently, see: Andy Haldane, 'Blessed Are the Beancounters Except When it Comes to Growth: accounting rules are holding back investment just as it needs to meet growth and net zero requirements', in FT (5 Aug 2024). Normative accounting would allow nations / corporates to account for the future value of current investments alongside their current CapEx 'cost' at 'fair value'. This is especially important for reflecting the true 'value' of green and sustainable investments which currently present only as a 'cost' to corporate balance-sheets and therefore act as a disincentive both to invest capital as a corporate and to allocate capital as an investor. For corporate 'normative accounting' approaches that would re-orient incentives, see: https://www.rethinking-capital.org/.
95. For national 'normative accounting', see: Ian Ball, Willem Buiter, John Crompton, Dag Detter and Jacob Sol, *Public Net Worth: accounting, government, democracy* (London, 2024).
96. See: Gillian Tett, '*The New Front for Green Revolution Rests on Warrior Accountants - Don't Dismiss Activist Bean-Counters: spreadsheets make more difference than placards*', in FT (4 Dec 2018).
97. Lord Hollick, Chair of HMG's Industry and Regulators Committee: "The impacts of accounting standards and the widespread adoption of leveraged LDI have transformed pension schemes from being long-term institutions into ones focused mainly on short-term volatility in prices and interest rates"

6 Reforming the System

98. An interesting analogy here is the courage, heart and wisdom that Frank L. Baum thought was needed in the gold standard debate of the late 1800s / early 1900s and that he pre-figured in the lion's courage, tinman's heart and scarecrow's wisdom in The Wonderful Wizard of Oz (1900). See, Hugh Rockoff, '*The Wizard of Oz as a Monetary Allegory*' in The Journal of Political Economy 98:4, 739-60.
99. Cambridge University Judge Business School's 'Purpose of Finance' course (within its Masters of Finance programme) is an excellent example of this approach.
100. For systemic 'emergence' or 'autopoesis' (self-authorship) see: Russell L. Ackoff, *Redesigning the Future: a systems approach to societal problems* (NY, 1974).
101. See: John Kay, Other People's Money: masters of the universe or servants of the people? (London, 2017).
102. See: Will Hutton, *This Time No Mistakes: how to remake Britain* (London, 2024).
103. Some initiatives have tended to take this approach which is itself a product of 'siloed' thinking within the public policy sphere.
104. The principles of the UK Green Financing Programme are set out in the Green Financing Framework (June 2021). The Framework explains how proceeds from green gilts and NS&I's retail Green Savings Bonds will finance green expenditures to help tackle climate change, biodiversity loss and other environmental challenges, while creating green jobs across the UK.

    The Principles also include guidelines on the types of expenditure that can be included in the Programme - effectively defining a 'sustainable expenditure' - which are set out in six categories:

    - Clean Transportation
    - Renewable Energy
    - Energy Efficiency
    - Pollution Prevention and Control
    - Living and Natural Resources
    - Climate Change Adaptation

    The annual Green Financing Allocation Report then accounts for the flow of investor capital through green gilts and Green Savings Bonds and into actual sustainable expenditure and change.
105. For the end of the post-WWII era of globalisation and rise of sovereign security / short 'supply chain' mentality, see Peter Zeihan, The End of the World is Just the Beginning: mapping the collapse of globalisation (NY, 2022); Helen Thompson, *Disorder: hard times in the 21st century* (Oxford, 2022) and Daniel Yergin, *The New Map: energy, climate and the clash of nations* (London, 2020).

Appendix

Key Interview Themes

Investment Pooling - Occupational DB

Industry disconnect

- The DB sector is seen as disconnected from average citizens' economic struggles. The finance industry is seen as prioritising its needs over consumers.
- The pension system is described as dysfunctional and lacking clear purpose, partly due to difficulty in articulating what stakeholders really want.
- There's a significant disconnect between financial services profits and broader societal benefits, particularly with the growth of private markets and decline of public markets.
- Disconnected Decision Chain: There's a significant disconnect between asset owners, consultants, and the actual deployment of capital, with multiple intermediaries (consultants, fiduciary managers) potentially diluting direct oversight and understanding.

Regulation

- There's no clear overarching strategy for financial services in the UK, with policy oscillating between deregulation and maintaining the status quo.
- Regulators are still influenced by the 2008 crisis, leading to a zero-tolerance approach to failures within the regulatory system. The regulatory system struggles to accept that some failures or misconduct will occur despite regulations.
- Strict regulation aimed at reducing risk exposure for the Pension Protection Fund has led to more conservative investment strategies and contributed to the closure of DB schemes.
- There's a strong regulatory trend towards "de-risking" in DB schemes, often leading to settlement with insurance companies.

Trustees

- Trustees have insufficient skills and may not fully understand complex financial concepts like leveraging within their schemes. Professional trustees have become important in a system where employer and employee interest in legacy schemes has diminished.

Risk

- The concept of "de-risking" is criticised as merely shifting risks rather than truly reducing them.[110]

The financial industry's focus on volatility as the primary risk measure is misaligned with retirees' actual needs and risks, which include sequence risk, longevity risk, and life stage optimisation risk. The emphasis on volatility stems from familiarity, existing models, and regulatory frameworks, leading to an oversimplification of risk assessment in retirement planning.

- The transfer of risk from collective pension schemes to individuals, through Pensions Freedoms, may lead to increased overall risk aversion, potentially reducing the capacity for beneficial risk-taking.
- Regulatory risk aversion clearly reinforces Trustee risk aversion which combines with cautious professional advisor market behaviours to have created a sector which is highly risk averse and lacking in entrepreneurialism.
- Current 'glide to buyout' startegies leads to untapped potential for adding value in the 5 years before and 10 years after retirement to increase investment pots.

Consultants/Advisors

- Pension consultants are seen as necessary but offering generic advice across schemes, raising questions about the value they provide. The push towards Liability-Driven Investment (LDI) by consultants is highlighted as an example of potentially problematic advice.
- Investment consultants operate on two main models: fee-based and fiduciary management, with the latter gaining traction, especially among smaller funds

Investment Mandates

- IM objectives are nominally set by trustees but are primarily shaped by investment consultants to align with available FM and PM products. The process of setting mandates often involves "backing into" objectives that fit existing fund offerings rather than creating truly bespoke solutions for pension funds. DB scheme actuaries can be resistant to taking investment risks beyond traditional asset allocations.
- The use of passive funds simplifies the mandate-setting process further, as the objectives are essentially defined by the nature of the passive funds themselves.
- Complex Governance Structure: The pension system involves multiple layers of expertise (actuaries, consultants, fiduciary managers), making it challenging to identify clear ownership of the entire investment process and potentially limiting effective engagement by asset owners.

LGPS

- Assets of LGPS funds are highly diversified, with a global focus on equities and significant investments in infrastructure, property, and various types of bonds. Funds leverage their predictable cash flows to make long-term, illiquid investments, including in infrastructure and venture funds.
- Local Investment Challenges: There's a delicate balance between local investment opportunities (like affordable housing) and avoiding conflicts of interest or bias perceptions. Funds face pressure from the government to invest in specific areas, often without sufficient funding or guaranteed returns, creating tensions with fiduciary duties and face significant pressure to decarbonise portfolios and divest from controversial investments, despite limited green project opportunities.
- UK Equity Bias: Historically, LGPS favoured UK equities, but this bias has decreased as funds diversify globally to reduce risk. Despite focus on maximising returns, there's ongoing pressure for LGPS to invest more in UK assets, aligning with perceived national interest

Investment Pooling – Occupational DC

Consumers and contributions

- A divide exists between savers' objectives (secure income from retirement until death) and the current system's mode of operation. DC pensions currently don't fulfill their purpose of providing lifelong income from retirement. Annuities are currently the only way to secure lifelong income; collective pensions can change this but are still at a nascent stage
- The maturation of auto-enrollment and the introduction of pension dashboards may increase engagement with pension savings, but many individuals struggle with making complex financial decisions about their pensions, especially as they age.
- Increasing pension contributions faces challenges due to potential impacts on wages and other benefits. Contribution levels are primarily determined by employer-member negotiations, with limited influence from master trusts. The structure of contributions (employer vs. employee) can influence opt-out rates in soft compulsion systems.
- Master trusts have an incentive to increase contributions but have limited direct power to do so.

Asset allocation/default funds

- Some Mastertrusts offer multiple default fund options, designed with members' future life-paths in mind. For one organisation 90% of customers stayed in the default fund, with the other 10% accounting for 25% of assets. In another large Mastertrust, about 80-85% of members use the default arrangement.
- Asset allocation in default funds is driven by actuarial and stochastic models. Traditional risk measures like volatility is not as relevant for retirees, as other factors such as sequence risk and longevity risk but remain the dominant measure of risk.
- Default funds typically blend equity and diversified growth funds. One large default fund focused on maximising growth within acceptable volatility boundaries. Another default fund had a 75-80% equity weighting, with the remainder in fixed income, corporate bonds, gilts, and property; equity allocation was based on the global equity index, with slight variations based on perceived value.
- There's a growing polarisation in master trust investment strategies, with a combination of cheap passive funds and investments in equities or private markets. Cost minimisation is a key objective, with index funds sourced at very low costs (under 0.25 basis points). Active equity components in default funds are rare due to cost constraints. Models across the industry are similar, with little or no direct scope for illiquid investments like infrastructure or wind farms because of cost pressures.
- There is a suggestion for a default income stream in the de-accumulation phase to help individuals manage their pension savings in retirement.
- Life styling strategies continue to be used for those nearing retirement, reducing equity exposure from 80% to about 35% over 7 years, despite the significant value creation potential from remaining invested in risk-bearing assets for the 5 years pre-/10 years post-retirement period. At retirement, one company retained about 75% of customers but less than half of the assets, as larger accounts often moved to other platforms.
- There are mixed views on LTAF's. One interviewee quoted demand for multi-asset Long-Term Asset Funds (LTAFs) in the DC market, combining various private market investments. Another said that DC trustees are perceived to be investing in LTAFs due to external pressure rather than genuine desire.

Real assets

- The DC market is seen as the primary area for potential investment in productive capital in the UK, due to its enormous flows and growing equity content; there is a recognition of the case for nudging pension funds to invest in productive UK infrastructure given the tax incentives they receive. Given previous comments this is more likely to be through Diversified Growth funds that include exposure to infrastructure and real estate, often through REITs and equity pools. Direct investments (e.g., private equity) through Long-Term Asset Funds (LTAFs) is another potential route.
- There is a perceived significant barrier to launching the first alternative investment product due to supply chain costs and adaptations required.

Lifestyling/Retirement

- Lifestyling strategies adjust asset allocation as members approach retirement. Current lifestyling models are based on outdated assumptions about retirement patterns. There is significant potential for value addition in the 5 years pre- and 10 years post-retirement period and a need for a new "typification" of retirement stages to guide investment strategies.
- Retirees are often self-insuring against longevity risk by underspending, resulting in a suboptimal quality of life during retirement due to fear of outliving their assets, highlighting the need for better risk description and weighting in retirement planning.

Daily liquidity

- Daily liquidity has become a market standard, despite debates querying its necessity for all investors. It is a crucial consideration in fund design, even for younger savers, due to the requirement for flexibility and to be able to meet potential unexpected demands.

- Daily liquidity requirements limit investment options and create unnecessary administrative costs for pension schemes; these liquidity requirements make it difficult to invest in illiquid assets.

Costs

- Market forces were seen as more powerful than regulatory cost caps in driving cost pressure in the industry. The cost cap in DC has led to an intense focus on fees, resulting in a "race to the bottom" in pricing.
- Typical all-in fees for DC schemes are around 20 basis points, leaving very little for asset management. 80-90% of equities in DC schemes are being run passively due to cost pressures.

EIS/VCT

- Government initiatives like Enterprise Investment Schemes and VCTs have aimed to encourage productive finance investments, but only investors at the top of the curve typically have 'discretionary' capital for riskier assets.

Innovation

- The pension freedom reforms haven't led to significant product innovation, with options still largely falling into lump sum, annuity, or drawdown categories. Innovation in the industry currently involves replacing human advisers with technology while maintaining the same back-end investments. Regulators are not hostile to innovation but prioritise customer interests (Consumer Duty).

Investment Pooling - Retail Investment

System Structure

- The investment system's complexity, with numerous intermediaries, makes it difficult to efficiently connect capital with productive opportunities. There's a disconnect between capital markets, retail investors, and policy-making, leading to incoherent regulations.
- Current policy-making processes, especially around budget time, are seen as ineffective for long-term policy development with public policy decisions significantly distorting markets, as exemplified by changes in pension scheme accounting rules. Quantitative Easing (QE) is also seen as artificially inflated debt prices and encouraged excessive corporate borrowing.
- The eligibility of assets for different wrappers (e.g. SIPP's and ISA's) is crucial for accessing retail money (see below).

Economic Productivity

Buying shares in public companies doesn't necessarily impact productivity in the real economy. Collective vehicles are typically not well-designed for direct "productive" investments, usually serving as buyers in secondary markets; they have structural problems around illiquidity and the ability to bear higher costs for more active investment in real enterprises. To improve the financial system's alignment with the real economy, focus should be on mechanisms to invest in the primary economy.

Real assets, such as housing and infrastructure, are proposed as better matches for individual and DC investors. More than one interviewee suggested that a portion of tax-advantaged savings could be required to invest in productive assets in the local economy.

The decline of merchant banking, especially outside London, is suggested as a factor in regional economic inequality in the UK.

Real Assets

- Interviewees see a compelling investment case for productive finance assets, but they're not readily available to most retail investors. The right structures and incentives could encourage investment in productive finance assets without overhauling entire investment strategies. There's a need to balance new incentives with maintaining the simplicity and understanding of existing products like ISAs.
- Different investment wrappers (ISAs, GIAs, SIPPs) attract different types of money flows and the regulation underpinning each influences investor behaviours. Current incentives are at the wrapper level, but there's a need for secondary stimulus at the investment vehicle level. Incentives at the investment vehicle level could be wrapper-agnostic and encourage long-term holding of productive assets.
- SIPPs might offer more flexibility for incentivising long-term investments due to their longer time horizons. Government could use incentives to channel money into specific sectors or types of investments as needed
- The shift from DB to insurance company balance sheets presents barriers to productive finance. Insurance companies face challenges in finding suitable illiquid assets for bulk annuity business that meet their regulatory constraints.

Regulation / Risk

A disconnect exists between design of market reforms and actual retail investors' needs and preferences; similarly between regulatory messaging and the desire to encourage investment and saving. The design of incentives needs to balance specificity (e.g., sector focus) with flexibility and ease of understanding for retail investors.

- Regulatory risk aversion and public reactions to investment failures can lead to reduced flexibility in products like SIPPs. The market can be resistant to taking investment risks beyond traditional asset allocations.
- The PRA has worked to make risks more transparent, but may not be sufficiently focused on asset productivity. (Comments reflect the current system modus operandii, prior to any outcomes from the PRA's new secondary objective on competitevness and growth being felt). Solvency II regulations (and previous mark-to-market based regulation) have contributed to decline of with-profits and risk-sharing models within the savings industry, with such impacts amplified by low interest rates driven by QE. There are concerns about the potential conservatism of PRA supervisory teams in implementing new regimes and the actuarial profession is criticised for not presenting strong counter-arguments to some regulatory changes.
- While Solvency II (and previous mark-to-market based

regulation) is seen as having valid insights about risk alignment, it has added pressure for outflows from equities over the last two decades. Skepticism predominates about whether Solvency II reforms will lead to the desired increase in productive investments; whilst the reforms aim to create a less onerous regime for corporate credit, implementation will be challenging. New reforms put significant personal responsibility on company officials, potentially leading to continued conservatism.

- Offshore "funded reinsurance" arrangements are emerging as 'a solution' to capital requirements, but raise transparency concerns. There's a risk that assets moved offshore may not be invested productively, transparently or in the UK.

Direct retail investment

- Direct retail equity investment has declined since the privatisation era under Thatcher. Direct investment in individual companies is currently seen as a minority activity and potentially risky for most investors. Retail investors are often excluded from IPOs and secondary capital raising rounds, reducing incentives for direct equity ownership.
- An exception to this is investment clubs which can be effective for direct investments for wealthy individuals in early-stage businesses without formal fund structures.
- The number of publicly listed companies is decreasing, with more capital moving to private equity. There's a trend towards more liquid, exchange-traded structures, moving away from less liquid vehicles except in private markets.

Public Equities

- There's a trend towards global equity benchmarks rather than UK-biased allocations. Additionally, the UK equity market is shrinking in global indices, creating a headwind for UK investments.
- Defining what constitutes a "UK company" for investment purposes is challenging, given most major FTSE100 companies operate internationally.
- Brexit has significantly reduced appetite for UK equities in asset allocation models.

Stewardship

- Stewardship by retail investors is challenging to implement effectively and may lead to unintended consequences.
- Implementation of TCFD stewardship codes and reporting is still in its early stages, with challenges in comparing companies' productive investments. Pressure on public companies to divest from certain industries can lead to those assets moving to less transparent private ownership.

Private Equity

- Private equity firms have gained trust from clients, but there are questions about their long-term performance relative to trackers.

Advice

- The role of financial advisors has shifted from asset allocators to financial planners and personal mentors, with asset allocation being driven centrally, through Model Portfolio Services.
- True financial planning is seen as focused on people's lives, goals, and happiness rather than just money, with the investment process focusing on clients' life goals and long-term plans for themselves and their families. Financial advisors maintain long-term, intimate relationships with clients, reviewing plans at least annually and are incentivised to get clients to invest for long-term benefits, as their remuneration is a percentage of invested wealth.
- The value of advice is not about financial education, but about engaging people with the investment system and at times protecting clients from the financial services sector. Advisors provide reassurance and help clients manage risk during market volatility; significantly they help manage "the risk of not taking risk" for clients.
- Advisors play a crucial role in getting people to invest in the first place but are often constrained in their ability to provide full advice due to regulatory concerns. Uncertainty over the advice/guidance boundary leads to overly cautious interpretations of rules; there is also a tension between the benefits of frictionless financial processes and regulatory concerns about consumer protection.
- The high cost of fact-finding in financial advice prices many people out of receiving advice. Open data could simplify the advisor's job of cataloguing clients' existing investments but slow progress on this is hindering potential benefits, particularly in reducing the cost of financial advice.
- Tax relief and tax advantages (e.g., pensions, ISAs) are major incentives to help convince people to invest their earnings or cash, with clients generally being very tax-sensitive; some refusing to invest without a tax benefit. Tax incentives are extremely effective in directing investments into particular products. Savings allocation is heavily tax-driven, with pensions and ISAs being prioritised. ISAs are considered "the perfect product" for many investors.
- The age of 75 is a significant point in pension planning due to changes in death benefits and tax treatment. Client behaviour often changes at age 75, shifting from preserving pension funds to spending or giving them away due to tax considerations. One interviewee suggests that many of these age-based rules are arbitrary and create "nonsense" behaviours.

Investment solutions

- Asset allocation is described as key, with 80% of investment returns driven by the mix between equity and fixed interest. Global diversification in asset allocation is viewed as essential, with advisors warning against overemphasising UK investments.
- Model Portfolio Services (MPS) are criticised despite their popularity. They are limited by what can be invested on advisor platforms and often can't include investment companies e.g. Investment Trusts, due to liquidity concerns; they have a one size fits all nature. The FCA is perceived to favour MPS solutions due to their large scale, low OCF (on-going charge figure), and ease of understanding, despite performance issues.
- Within UK MPS solutions, home bias in investing has largely disappeared. The UK market has a stronger

tradition of investing for income compared to some other markets. Investment markets typically generate returns on the second derivative (e.g., earnings surprises) rather than on first-level metrics (value generation).

- There's concern about a trend towards larger wealth managers offering increasingly homogeneous, MPS-based solutions. The relationship between big firms and regulators is perceived as different from that of smaller firms, with large firms better able to push regulatory boundaries.
- Current asset allocation paradigms are criticised for relying on assumptions that may not be robust or resilient. Individual outcomes are insufficiently addressed, as most tools focus on centralised or banded cases with insufficient attention paid to downside outcomes and how to manage these in financial planning.
- Sustainability considerations expose flaws in backward-looking risk assessment tools, suggesting a need for more prospective thinking. The ESG metric industry is criticised for creating false presumptions and potentially unreliable methodologies.
- The reasons for using life insurance products for investments are primarily tax-related. With-profits products have largely disappeared in the UK, declining from their peak in the early 2000s due to solvency issues. One interviewee believes with-profits products were unfairly targeted and received more bad press than deserved; these products remain relatively popular for drawdown in retirement, offering smooth returns of around 4-5% and are still used in many other markets.

Liquidity

- Unlike the DC sub-channel, in the RI sub-channel the need for liquidity in retail investment is powerful and not just a regulatory artefact. The individualisation of investments creates problems when investors are unable to wait out periods of illiquidity, even if waiting would be beneficial.

Investment Trusts

- Investment Trusts (ITs) represent about £267bn of assets, with a decline in both number and AuM over recent years, with more alternative and illiquid assets entering the market. More than 50% of IT assets are now in alternative investments. Equity ITs often need to justify their existence beyond the underlying assets they own, leading to specialisation. They are seen as well-suited for democratising access to private and long-term capital assets. ITs invested in alternative asset classes tend to favour global exposure, while real estate ITs are more UK-focused.
- Proponents argue that they have better performance across cycles than OEICs but with higher volatility. Infrastructure and PE IT's have share price volatility that differs from their underlying assets. Their leverage, volatility, and cost disclosure issues can reduce their attractiveness for many collective investment propositions. As a result IT's attract more "hobbyist" investors and receive more press attention relative to their size.
- MiFID and PRIIPs regulations have complicated the understanding and treatment of investment companies, Investment trusts could potentially offer retail-friendly vehicles with features like bonus shares for long-term holding.
- Post-RDR, commission is no longer a factor in advisors' preference for unit trusts over investment companies. Fund structures are considered an appropriate way to bring investment companies to market for retail investors. Consumer duty considerations are deterring some from investing in funds of investment companies.
- The US has a closed-ended fund sector, but it's smaller than the UK's and operates differently.

Venture Capital Trusts

- VCTs are seen as unfashionable due to perception as tax breaks for the rich, but could be beneficial for more UK taxpayers. Their marketing tends to be focused on tax breaks rather than actual investment returns, with performance often judged more on tax savings than underlying asset returns.

Long Term Asset Funds (LTAFs)

- LTAFs are seen as more diversified and potentially more attractive to DC schemes and wealth management than traditional ITs. Traditional fund managers struggle to adapt to new structures like LTAFs due to ingrained thinking and perceived customer demands and they face challenges similar to those experienced by real estate funds, particularly regarding liquidity.

Wider Contexts

- Interoperability - A number of respondents stressed the need for capital formation policy to operate in the round – comprehending Pillar 1 (State pension); Pillar 2 (occupational saving via DB or DC); and Pillar 3 (Retail / private savings).
- For one thing, UK citizens often do not themselves differentiate between different forms / pillars of investment, and frequently hold DC, SIPP, ISAs and other investments under the umbrella of 'pension saving'. For another, individuals are faced with trade-offs between different forms / pillars of provision (e.g. the decision to contribute AVC into a DC scheme or to open an ISA; the consolidation of legacy DC schemes within a personal pension).
- The wider context still, is the real life context in which savings are made and spent – i.e. the shape of life in retirement, its assets (e.g. mortgage-free housing) and its liabilities (e.g. the need to pay for social care for self or family).
- All of the above is dependent on the level of pension contributions made by both employees and employers, which for many DC members is too low.

Asset Management - Fund Management

Mandates/Asset allocation process

- The typical asset allocation/mandate setting process can be described as follows:
- Asset owners (often trustees) are responsible for setting the overall return objective and risk parameters.
- Specific objectives are constructed (typically by investment consultants) for individual managers within a portfolio.

- Fund managers often create products they believe will fit buyers' needs, and mandates are then "retrofitted" to these products.
- For mandates focused on passive funds, the process is simplified; the FM creates a product comprising a raft of passive funds to meet the asset owner's objectives at the fund level.
- Segregated mandates are small in number but often represent a disproportionately large amount of assets under management.
- The process of setting mandates can be complex, with input from actuaries who model both sides of the balance sheet. Most actuarial modelling is still based upon Capital Asset Pricing Model theory, that utilises volatility or 1-year VAR as the primary measure of market risk.
- Fiduciary managers come closest to "owning" the entire mandate process, effectively becoming fund managers themselves.
- These points highlight the intricate interplay between asset owners, investment consultants, fund managers, and fiduciary managers in the mandate-setting process, as well as the tendency towards retrofitting mandates to existing products rather than creating truly bespoke solutions for each client.
- The role of agents within the system is also shifting with, for example, consultants moving towards a fiduciary/ OCIO model, often intermediating between asset managers and asset owners. The relationship between Portfolio Managers and consultants has evolved; consultants now act as gatekeepers, customers, and competitors to portfolio managers.
- A fundamental question is why mandates for long-term liabilities are converted into short-term contracts with relative based benchmarks, increasingly based off global indices? The best answer we've obtained to this question, is that 'this is how the market works'. We consider this reflects a market imbalance between a fragmented asset owner/ buyer market facing into a more concentrated fund management/investment consultant/seller market. A few large, sophisticated asset owners, like USS, have demonstrated the ability to construct long-term mandates that reflect better their savers' needs and provide superior risk/return profiles. The Rail Pen model[111] is also cited as an example of good practice for pension fund management.

UK equity weighting

- The structure of client contracts and product offerings can greatly influence asset allocation strategies. For the vast majority of asset owners (ie both DC default funds and RI funds) global equities are preferred for long-term risk-taking, with portfolios largely allocated based on global indexes e.g.MSCI Global that give the UK a small weighting. This historically has resulted in under-allocation to UK stocks despite the capital available in the UK. The argument put forward for not offering separate UK equity mandates is due to the global nature of many FTSE 100 companies. Brexit is observed as significantly reducing appetite for UK equities in asset allocation models.
- There are perceived to be significant differences between UK and international clients, with UK clients tending to be more "sticky" and international clients more discerning. One interviewee commented that the British share of the British asset management market has dropped from 80% to 20%.

Asset allocation trends

- Asset allocation has shifted away from UK productive equity sectors over the past 20 years and the UK's presence in global equity indices is shrinking, further creating a headwind for UK investments. There's been a larger allocation to "unproductive sectors" like government gilts, partly due to regulations encouraging LDI investment.
- The focus on costs (DC and RI channels) has driven a shift from active to passive, which has resulted in the decline of many British active asset managers. One manager quoted 80%-90% of DC equity investments being run passively due to fee pressure and a polarisation in Mastertrusts' investment strategies: cheap passive funds on one end, private markets on the other. This is combined with growing demand from DC schemes for multi-asset "liquid, alternative" funds providing exposure to private markets. Accordingly, investment trusts have become an important vehicle to gain exposure to private equity, though they face challenges such as NAV discounts. One interviewee noted the lack of recognition that passive investing is "inherently parasitical" and requires an active industry to exist.
- The large investment firms tend to allocate money to big, deep pools of capital where liquidity is available, thereby driving investment capital away from smaller growth firms. This is exacerbated by benchmarking practices which can reduce the need for investment research, especially for smaller firms. Mifid2 has additionally hastened the demise of investment research.
- Most fund managers are "benchmark aware," allocating a portion to the benchmark and then going off-benchmark for better sources of alpha. Small cap benchmarks now often include larger companies, which creating issues for true small cap investments.
- Market volatility continues to play a part in asset allocation strategies, both in construction of asset allocation using CAPM based models but also in "convexity strategies" ie downside protected strategies, which are described as an "insurance premium" for market volatility. The interviewee suggested a larger Pension Protection Fund might be better than forcing pension funds into suboptimal investment strategies.

Productive investment

- The concept of "productivity" is often not part of investment calculations; instead, focus is on relative performance against indexes. Social productivity and investment productivity were seen to occupy different frameworks despite having the same root.

Regulation

- The investing environment is seen to have become harder over time, partly due to regulatory complexities, with a contrast drawn between economically-driven and politically-driven decision-making in markets.
- The current regulatory structure is likened to a "fire blanket" that's depriving the financial ecosystem of

"oxygen" (productive investment). The speaker argues that protective measures like LDI should be removed once the "fire is out" to allow for normal productive investing.

- One interviewee advocates for all regulators to have a UK competitiveness objective, not just an objective to achieve competition within UK markets.
- Government incentivisation is needed to change the above, but there has been a perceived lack of political appetite to address these matters due to concerns about appearing elitist.

Asset Management - Portfolio Management

Public market failings

- Public companies are valued for their ability to raise permanent capital, operate transparently, and distribute wealth widely. Public markets are important as they provide exit opportunities and serve as visible market proxies. There is however a cost-benefit analysis to being a public company, with increased costs in areas like audit and governance.
- The benefits of being public (liquidity, access to growth funds, transparency) are currently out of balance with the costs and there is a resulting trend of companies delisting due to lack of liquidity and investor appetite. The structure of the British pension fund industry is cited as a key driver of market behaviour. Cultural factors are seen as more important than regulatory changes in encouraging privately-backed companies to IPO in London.
- The Thames Water situation is seen as a watershed moment to reflect on how UK companies should be owned and funded and was cited as an example of private investors potentially exploiting the public markets.
- There were many comments made by portfolio managers on the failings of current UK public markets, with them being described as "stale" and "extremely fragmented" compared to more dynamic international markets. Various factors have contributed to the UK's market challenges, including FRS 17, Brexit, and the financial crisis.
- Liability-driven investment strategies in the UK are criticised for "killing the market" by overly focusing on bonds and predictable cash flows.
- Public markets are driven by both numbers and narratives, with narratives often dominating. The narrative around UK assets has been negative for some time but may be at an inflection point.

Private Equity

- Long-term investment projects require certainty, stable ground rules, and appropriate financial returns. Increasingly this is seen to be more accessible from private markets than public markets that are more prone to regulatory and political changes.
- There is a growing trend of companies staying private for longer and not going public; one interviewee cited statistics that there are over 17,000 private companies with over £100 million in revenue compared to only 2,600 public companies of that size. Reasons behind this included companies not wanting the disclosure and regulatory requirements of being public, as well as having access to ample private capital. This poses challenges for investors, especially retail, to gain exposure to such high-growth private companies.
- Private equity investments are more likely to be UK-focused due to ease of access. The lack of standardisation and transparency in private equity valuations suggests an opportunity for third-party data providers to create a more standardised "market" for private company valuations, facilitating wider access to PE investment.

Public v Private

- The "existential crisis" of London Capital Markets is framed as public vs. private markets. Public markets are described as becoming a "fringe activity" compared to private markets. Fixing the public markets is seen as a prerequisite to fixing private markets.

Real asset Investment

- Cost is a significant factor for institutional investors, leading some investors to pursue direct real asset investment opportunities alongside fund investments. However, there is some growing concern that the focus on cost reduction through co-investments may lead to inadequate portfolio diversification.
- Intermediary asset managers are becoming increasingly important, especially for smaller pension funds and insurance companies.
- Consistency of policy is crucial for long-term infrastructure investments. Permitting issues in the UK are hindering new infrastructure development, particularly in areas like offshore wind.
- Infrastructure issues, like grid connectivity for EV charging and offshore wind, are also inhibiting investment. The government needs to address infrastructure challenges to encourage private sector investment. There is a need for a balance between public interest and incentivising private capital in essential infrastructure.

Large shareholders/Universal ownership

- With both fund manager and portfolio manager consolidation, there is a growth in what are described as 'universal owners'. A loose threshold of about £50 billion in assets to be considered a universal owner. Universal owners are concerned with long-term risks like 30-year climate change scenarios. Universal ownership is a concept embraced by long-term investors like USS and HSBC.
- Universal owners believe their returns are strongly influenced by the broader economic system and world around them. These investors collaborate on systemic risks like climate change and biodiversity.
- There is, however, a question around the effectiveness of the type of 'conviction' that universal ownership operates too. While universal owners have very strong 'conviction' about the investments they make, there is little 'conviction' in the choice of those investments in the first instance. Instead, universal owners tend to 'own the benchmark' and to steward it well – but they increasingly cease to be engaged in primary investment and smaller companies.

Risk / Returns

- Investors now think globally, seeking the best companies regardless of geography.
- Returns for comparable infrastructure opportunities are generally higher in the US than in the UK. The US has more primary activity and new construction, while the UK market is more focused on secondary trading. UK policy mindset, particularly around essential services like water, can be a barrier to attracting private capital. There's a contrast between UK and US consumer mindsets regarding paying for essential services.
- It can be difficult to persuade investors to consciously accept disproportionate risk/return ratios for social impact. The vast majority (99%) of capital aims for commercial returns, with few accepting concessionary returns for social impact. The challenge lies in finding opportunities that deliver both commercial returns and positive impact. Recognition of externalities in profit assessment may help to shift investment appetites towards socially attractive investments.

Governance / Stewardship

- Stewardship is often a low priority for trustees, as Trustee meetings are often overwhelmed with governance material, leaving little time for stewardship discussions. Trustees usually focus on short-term (three-month) investment performance rather than long-term stewardship.
- The US pension fund landscape differs from the UK, with fewer but larger Defined Benefit pension funds. US pension funds tend to have more in-house expertise and different relationships with consultants compared to UK funds. The regulatory environment in the US is perceived as less focused on risk reduction at any cost.
- One interviewee emphasised the complexity of the investment business and the challenges of developing true expertise and was therefore critical of the expectation for pension fund trustees to have high levels of investment expertise.

Impact investing

- UK pension funds tend to invest in impact investments only when the targeted demographics align with their beneficiaries, however, it is often treated as a small, experimental part of larger portfolios rather than a mainstream strategy.
- Capital deployment is seen as more effective when done by mission-driven investors with return targets rather than through the government. Impact investors face skepticism about delivering competitive returns due to their limited investment universe but believe they can be more productive in deploying capital than government initiatives or by giving charitable donations.

Press impact/Narratives

- Public narratives have impacted the markets, with negative narratives about public markets being damaging. The collapse of Woodford five years ago is seen as a turning point that led to increased requirements for liquidity, particularly for smaller and mid-cap companies.
- Efforts are now being made to highlight positive stories. One interviewee suggests that companies like BP are doing positive work in decarbonisation, but this isn't widely discussed due to perceived restrictions on the narrative. The need for someone in the press who is proud to own British companies and can promote their positive aspects was felt to be a gap along with a call for a "change champion" to rally support for equities and public markets (although CMIT may now be filling that need).

Externalities

- Externalities are increasingly being recognised as an important factor for investment management. Double materiality means considering both how an investment impacts on the portfolio and how the company's behaviour affects the wider world.
- The government is encouraged to be more interventionist with a "social good hat on." One interviewee advocated for government policies that incentivise businesses making positive societal contribution and a call for heavier penalties or taxes on businesses providing services not beneficial to society.
- It is difficult to take issue with the argument that the cost of harmful business behaviours needs to be recognised and penalised, potentially through reputation damage if direct intervention is challenging. Technology companies are a case in point given the slow recognition that the material world is crucial for the future of AI and technology.

'Home Bias'

- The scale of deployment of investment capital by UK defined contribution (DC) pension schemes, the value of which is estimated to exceed £1 trillion by 2030, demonstrates the potential capital pool that is available for greater investment in the UK's public equity markets.
- However, with local government pension schemes (LGPS) and DC fund managers increasingly allocating funds to global equities, it is seen as urgent to consider an appropriate incentive structure to make capital allocation specifically to UK public equities more attractive. This could require making UK equities more attractive to pension funds and institutional investors, while leaving them the flexibility to determine the right balance of UK versus international equities to deliver good investment outcomes under their fiduciary duty.
- Retail investors are also seen as able to play a significant role in this agenda through a more supportive environment including: a simpler range of ISA propositions, more informative and guided online customer journeys, and a regulatory environment that enables consumers to make informed, risk-based decisions. Whilst a UK ISA may have potential to form part of the solution, simplification of the ISA regime is seen as a more immediate priority.

Capital Issuance – Public and Private Markets

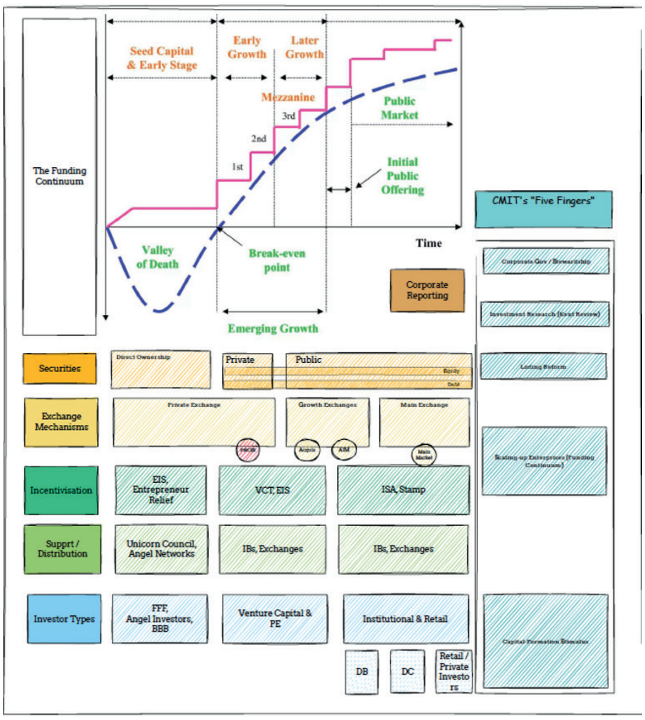
- NCC has been to date less focused in its interviews on the securities issuance space.
- The government, CMIT and TCUK are already involved in some of the reform needed to make the asset issuance channel more attractive, efficient and 'productive', e.g. Mansion House Initiative, Edinburgh Reforms, IPO / Listing Review, Secondary Issuance Review, Investment Research (Kent) Review, PISCES consultation. CMIT and

the CityUK have also been focusing in this area.

- Given the significant changes already being implemented in Capital Markets, delivering these reforms at pace but then allowing them to bed-in appropriately and spending political time / resource in other areas of the investment system seems to be more beneficial. A clear and firm timetable for implementation of reform, including timely implementation of:
  - The Primary Market Effectiveness Review in the summer of 2024;
  - The UK Prospectus Regime Reform and the Secondary Capital Raising Review during 2025;
  - Payment optionality for investment research – noting the FCA's recent consultation paper;
  - The imminent recommendations of the Digitisation Taskforce
- Investment Research – a number of respondents questioned whether the 're-bundling' of investment research (Kent Review) would really move the dial for the take-up of SME assets in particular
- PISCES – a number of respondents questioned the use-case for PISCES but welcomed the initiative within the FCA sandbox.

A Funding Continuum

- One of the UK's unique, underappreciated strengths is that it is a market of small and medium sized businesses. It has one of the highest new business densities in the world, with 5.6 million businesses. This environment is producing a pipeline of growth companies, some of which may eventually seek a public equity market listing. UK stock exchanges host well over 2,000 companies (across the London Stock Exchange's Main Market, AIM and Aquis Stock Exchange). More than 80% (by number) are valued below £1bn, for whom public equity markets are an important source of responsible growth capital and price discovery.
- However, for many smaller and medium sized companies the funding journey is highly disjointed and scale-up capital is invariably provided by overseas investors, with consequently low flow through to UK quoted and listed equity markets. For those that do become publicly traded companies, the benefits of UK-listing risk increasingly being outweighed by low liquidity, high reporting burdens and costs.
- Reform focused on a smoother funding continuum, underpinned by joined up policy from start-up to scale-up of UK companies onto UK growth exchanges and listed markets is needed. Creating the conditions for greater investment from UK investors into UK start-ups, to ensure that the UK retains such companies within its own ecosystem when they become quoted or publicly listed companies is desirable.
- Reform also needs to focus on supporting capital formation and increased liquidity in private and public equity markets, to provide a competitive and attractive environment for such companies to be able to continue to access growth capital in the UK throughout their lifecycle.



New Capital Consensus
A better investment system for all

About New Capital Consensus

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

We believe addressing these problems requires us to:

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

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

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

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

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

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