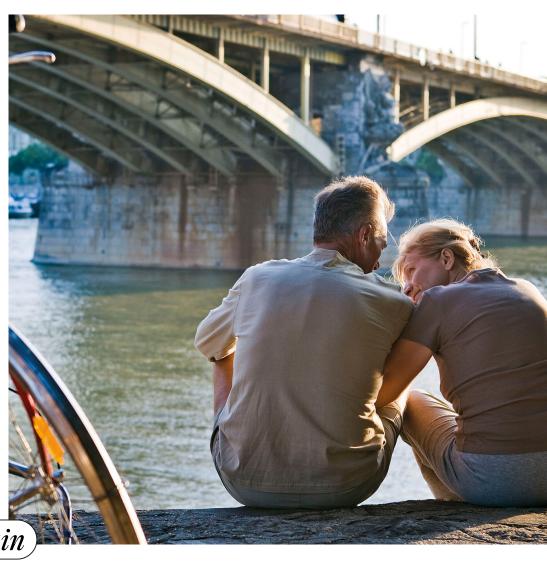
MAY 2023 JEEGAR KAKKAD MARTIN MADSEN MICHAEL TORY



Future of (Britain)

Investing in the Future: Boosting Savings and Prosperity for the UK



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Our Future of Britain initiative sets out a policy agenda for a new era of invention and innovation, based on radical-but-practical ideas and genuine reforms that embrace the tech revolution. The solutions developed by our experts will transform public services and deliver a greener, healthier, more prosperous UK.

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Executive Summary

The UK's pension-savings system is broken and long overdue for sweeping change.

Over the past 20 years, this country has seen the abandonment of investment in the domestic economy by United Kingdom pension funds, with the almost total liquidation of their holdings in listed UK equities built up over generations. This has depressed UK companies' valuations, constrained business investment and limited the supply of growth capital to improve productivity and fund innovation.

Both pensioners and the economy have suffered as a consequence. For pensioners, returns from UK pension funds have been among the poorest in the industrialised world. For the economy, business investment as a proportion of GDP has declined steadily and the UK now urgently needs to invest in its economy, its infrastructure, its ideas and its entrepreneurial energy, which, despite everything, remain among the world's best.

The UK now stands alone as the only major equity market whose value remains below its high prior to the financial crisis, falling from third place globally in early 2000 to tenth today.

While other factors have clearly contributed, the root cause of these problems can be traced to accounting and regulatory changes to the UK's tax and pension systems in the early 2000s. Two decades on, action is long

overdue. The pension-fund crisis in September 2022 was a warning shot that exposed the system's fragility and the risks to pensioners' financial security.

This paper sets out a safe, practical and scalable solution: a logical expansion of the Pension Protection Fund (PPF), an existing, proven, successful institution, to become this country's first "superfund": GB Savings One.

This would be accomplished by a simple first step: instead of having to fail in order to transfer their pension fund to the PPF, sponsors of the smallest 4,500 UK defined-benefit (DB) schemes would be offered the voluntary option of transferring to the PPF on a benefit-preserving basis to be agreed between the companies and the PPF.

The PPF model would then be replicated and rolled out throughout the UK in a series of regional, return-generating, not-for-profit entities that would progressively absorb the UK's 27,000 defined-contribution funds, the Local Government Pension Schemes, the remaining DB funds, and, potentially, public-sector pension schemes, which in most cases are not funded.

Through this approach, the UK would, in three to five years, emerge with around half a dozen global-scale (£300 billion to £400 billion apiece), professionally managed, long time horizon, diversified funds. Not only would these superfunds generate better, more secure returns for pensioners than the 5,200 existing DB funds, they would also strengthen pensions for the entire generation stuck with inadequate provision since the closure of DB funds over the past two decades.

These superfunds would also help restore the lost vitality of British industry by deploying long-term equity to invest in the UK's economic future – in creativity, innovation, the energy transition and in London as a global financial centre.

If implemented, these changes would secure better outcomes for UK pensioners, release capital for investment in long-term growth, reinforce national security by reducing the UK's dependence on foreign capital, and begin the process of restoring the dynamism that the UK economy has steadily lost over the last two decades.



Why the System Must Be Changed

In early 2000, the London Stock Exchange (LSE) was the world's third largest, with a market capitalisation of \$2.6 trillion – roughly double that of Paris at the time – while the Financial Times Stock Exchange 100 Index (FTSE 100) had almost tripled over the preceding ten years. The LSE hosted around three times more companies than Paris and the UK's four most valuable listed companies were among the 25 largest in the world.

Just two decades later, the market was fragile enough that UK pension funds' concentrated and in some cases leveraged exposure to interest-rate risk was enough to cause instability as interest rates (yields) rose in the wake of then Chancellor Kwasi Kwarteng's September 2023 mini-budget.³ This led to a record low for the pound and steeply falling prices for UK government bonds (gilts).

On the morning of Monday 26 September, long gilt had its biggest one-day fall ever as chaotic selling threatened both overall systemic stability and the government's own funding programme.⁴ UK pension funds and mortgage markets were left struggling to adjust to the rapid rise in interest rates and market volatility.

The panic grew and spilled over into Tuesday 27 September, with the long gilt now down an unheard-of 24 per cent. A chorus of pension funds and their asset managers pleaded with the Bank of England to intervene to restore confidence and stability. Such was the existential fear – especially for the functioning of the crucial gilt market – that by 11am on Wednesday 28 September the pension funds got their wish and the Bank reluctantly intervened, buying £20 billion in long-dated and index-linked gilts over the following days, and order was restored.⁵

The systemic fragility of UK defined-benefit (DB) pension funds was almost 25 years in the making, stemming from tax and regulatory changes in the late 1990s, falling interest rates and the adoption of liability-driven investment (LDI) strategies. These changes had a profound and lasting impact on the UK's competitiveness.

The UK Market Was a World Leader in the Early 2000s

Throughout this period, UK equity-fund managers were globally preeminent. They regularly acted as cornerstone, opinion-leading, long-term investors, underpinning and supplying capital for the long-term growth strategies of most UK listed companies and providing anchor investment for global initial public offerings (IPOs).

Expansive, growth-oriented UK companies faced the world with confidence – regularly raising new capital from their domestic shareholders to fund acquisitions of businesses in the US, continental Europe and Asia – all the while building that era's global leaders in such industries as telecoms, pharmaceuticals and natural resources.

The cumulative impact of the consistent erosion of key measures over the subsequent two decades is further illustrated by the collapse in the value of the UK's domestic equity market as a percentage of GDP, especially compared to its peers (see Figures 1 and 2).

Early 2000s Changes to the UK's Pension System

A series of changes were made in the early 2000s to a UK pension system that, while imperfect, was largely working for both its members and the companies that sponsored them. There were three specific changes that had a profound negative impact over the following two decades and leading to the situation we have today.

First, in 1997 the government eliminated the dividend tax credit to encourage companies to reinvest profits rather than pay them out in dividends. An unintended impact of the move was to make it less attractive for UK pension funds to hold shares in listed UK companies.

Second, in 2003 legislation converted what had previously been natural risk-sharing between employers and employees with respect to pension payments into a "hardened" contractual obligation for companies, covering all obligations of their pension funds.⁶

FIGURE 1

UK capital markets are in a weaker position now than they were in early 2000

METRIC (IN USD UNLESS STATED OTHERWISE)	EARLY 2000	TODAY
Pension assets invested in listed UK equities	50%+	4%
Per cent invested in bonds ^a	15%	60%
UK business investment as a per cent of GDP / deficit with peers ^b	19% / (3%)	17%/ (6%)
FTSE 100 change over previous decade(s) ^c	180%	(17%) ^h
UK overseas M&A - net outward purchases / (net inward sales) ^d	+£280bn	(£430bn)
Market capitalisation – London / Paris	1.8x	0.9x
London / Frankfurt value of equity tradinge	3.4x	1.2x
Primary capital (non-bank) raised in London	9.5bn	4.2bn
Primary capital raised on Euronextf	8.0bn	12.8bn
LSE global value rank ^g	~3	~10

 $^{^{\}rm a}$ UBS Pension Fund Indicators 2016 and Pension Protection Fund Purple book 2022 and ONS "Funded occupational pension schemes in the UK".

b World Bank: Gross Fixed Capital Formation. Calculated as period from 1990 – 1999 vs. today (latest available figures).

^c Bloomberg.

^d ONS: Mergers and acquisitions involving UK companies.

 $^{^{\}circ}$ World Federation of Exchanges & Bloomberg. Total market capitalisation as of 2020 and today (March 2023).

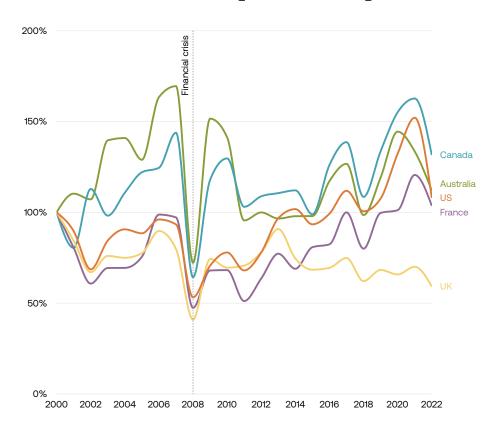
^f Bloomberg. New primary issuance by non-bank listed firms on LSE and Euronext respectively. Average for 2001 – 2010 and latest full year (2022) respectively. Excludes Investment Trusts and transactions below USD 100m.

⁹ LSE surpassed Nasdaq in August 2002. Today as per World Federation of exchanges (2022).

 $^{^{\}rm h}$ 17 per cent decline in FTSE 100 is over the period from 2000 to end 2022 (so 22 years), while the 180 per cent increase is for the decade to 2000.

FIGURE 2

The UK's equity-market value as a share of GDP is weak compared to its peers



Source: World Bank, Bloomberg and CEIC

Third, with pension-fund obligations now having the status of a hard liability for employers, the Accounting Standards Board introduced new requirements for UK companies to include pension-fund assets and liabilities on their balance sheets. Through this change, assets would be shown annually at prevailing market value (that is, with no allowance for future returns) and, crucially, total future pension liabilities would be discounted by, in effect, a fluctuating long-term bond rate.⁷

The main initial consequence was to burden the balance sheets of all listed UK companies with massive pension-fund liabilities that in many cases dwarfed the size of the companies themselves. At the time, there were around 15 FTSE 100 companies whose pension-fund liabilities exceeded their market capitalisations. A good illustration of this is International Airlines Group (IAG, formerly British Airways) which, with a market capitalisation of £4 billion in 2006, had gross pension liabilities of £12 billion. IAG was subsequently described as a giant pension fund with an airline attached.

The Initial Impact of These Changes

Companies were now contractually responsible for the entire liability side of their pension funds but had no practical entitlement to share in any upside from the performance of the assets. This introduced a hard asymmetry for companies, leading to extreme risk aversion on the part of pension trustees, especially once funds closed in response to the burden of these changes.

Between 2001 and 2022, UK private-sector-pension-fund holdings of UK equities decreased from over 50 per cent of the average pension-fund portfolio to just 4 per cent today. Over the same period, their holdings of fixed-income securities (mainly gilts and corporate bonds) increased from 15 per cent of total assets to approximately 60 per cent.¹⁰

The era of unprecedented low interest rates ushered in by the financial crisis of 2008 to 2009 continued to increase the burden on sponsor companies, as the accounting liabilities in DB pension funds rose and interest rates dropped. This was further amplified by employees living longer than predicted when the schemes were originally established. Total UK pensionfund liabilities increased from £890 billion in 2010 (when the ten-year gilt was 4 per cent) to over £1.8 trillion in 2020 (when the ten-year gilt was 0.2 per cent^{††}), with this entire burden reflected in the corporate sponsors' balance sheets. The Pensions Regulator (TPR) estimates that every 0.1 percentage-point fall in interest rates on government bonds increases the accounting liabilities of UK pensions funds by at least £23 billion.

Despite entering a period of ultra-low interest rates, DB funds did not reassess their investment focus on bonds. Rather, the overriding imperative was not to increase returns but rather to reduce risk and insulate corporate sponsors. As it happens, lower interest rates did temporarily increase the value of the funds' bond portfolios.

Meanwhile, historically low interest rates on gilts meant the funds had to turn to other means to preserve returns. Given their large exposure to bonds, funds sought to protect themselves from further declines in interest rates. This was part of the origin of the leveraged-LDI strategy which was designed to generate additional returns in an era of low and falling interest rates.

On 7 February 2023, the House of Lords Industry and Regulators Committee report on the use of LDI strategies found that leveraged LDI was created to address an artificial issue caused by accounting standards. Instead, it created downside risks. According to the report, the problem lay in assessing the present value of future pension liabilities discounted at a low-risk market interest rate, ignoring the potential upside of investing in a diverse portfolio. The report concluded that this accounting standard led to a situation where a scheme might appear to have an accounting deficit even if the investment strategy is expected fulfil commitments in the long term. ¹²



The Impact of These Changes on Corporates, Pensions and Markets

As a result of regulatory changes and falling interest rates, companies tried to prevent their pension funds from becoming even larger relative to their market capitalisations by closing their funds to new members. In the four years following the changes described above, some 70 per cent of all DB pension schemes closed to new entrants. Of the 7,800 active pension funds in operation in 2005, just over 450 remain open to new members today, down 95 per cent.¹³

This changed the fundamental character of the funds – they were now for the most part in "run-off", or a finite lifespan, and trustees therefore had a much shorter time horizon and risk appetite. It also relegated all subsequent generations entering the workforce into an even more unsatisfactory arrangement.

How British Companies Responded

For corporate sponsors, the financial and actuarial risks of DB pension schemes now came to exert a disproportionate influence on behaviour, encroaching on cashflows available for investment, reducing credit worthiness as the rating agencies viewed them as a debt-like liability, depressing stock-market valuations and limiting access to new capital.

The true scale of this disaster comes into focus in assessing the impact of what the *Financial Times* has called the "tyranny of the discount rate" on the literally thousands of companies affected by these changes. Since 2004 UK companies have been obligated by TPR¹⁵ to make additional deficit-reduction and higher contribution payments to their pension funds totalling over £300 billion. At least some part of this total could and should instead have been deployed to fund growth and scale, to invest in productivity-enhancing technology, to expand globally, to invent and commercialise new drugs or to improve competitiveness through innovation.

There was no realistic way for a company to recover these contributions if, for example, the direction of interest rates reversed (as in fact has happened

over the past two years) or if the fund's assets were later invested in such a way as to earn higher returns. As such, once additional contributions were made, they were for all practical purposes unrecoverable for investment.

This example should put to rest once and for all the damaging and persistent belief that the accounting treatment of pension liabilities in the UK – and the corporate linkage from which it derives – has not had economically harmful consequences.

Currys – A Tragic Exemplar

Currys, a longstanding UK company, experienced significant financial impact from having to close its pension deficit. Currys had retirement obligations for the consumer-electronics retailer Dixons following a 2014 merger. An actuarial review indicated a deficit of £645 million. To close this gap, Currys agreed to pay £691 million between 2020 and 2029, in addition to the £259 million contributed since the scheme closed to accruals in 2010.

Currys is not in trouble financially. This year, the company expects to make £100 million in pre-tax profits and has a market capitalisation of £625 million. ⁵¹ However, the additional payments made to close the pension deficit could have been used in other ways, including for investments.

Ultimately, by the end of 2022, the actuarial deficit in the Dixons fund had declined by approximately £200 million, primarily due to falling interest rates. This reduction was notably more significant than the extra contributions Currys had agreed to add between 2020 and 2022.

In hindsight, it's evident that Currys should not have been compelled to contribute such substantial sums to its pension fund. The deficit that prompted the additional payments was later shown to be merely an accounting and actuarial fiction. Unfortunately, this decision constrained the company's ability to invest in its own future.

How the Pension Funds Responded

The pension funds initially responded rationally to the new circumstances and changed mandates from their sponsoring companies.

First, the imperative for the trustees responsible for overseeing asset allocation was not only to continue to protect fund-member benefits but also to minimise volatility and risk arising from asset and liability fluctuations or exposure to future capital-contribution requirements by TPR. Out went mandates for long-term growth and return-oriented fund managers; in came actuaries and pension consultants focused on eliminating risk.

As a result, combined with the funds' closures, trustees' primary focus shifted from investing in a broad, diversified portfolio of assets to meet the needs of future beneficiaries to managing the finite nature of their funds, amplified by corporate sponsors' extreme but legitimate aversion to risky investments that would require additional contributions to the fund.

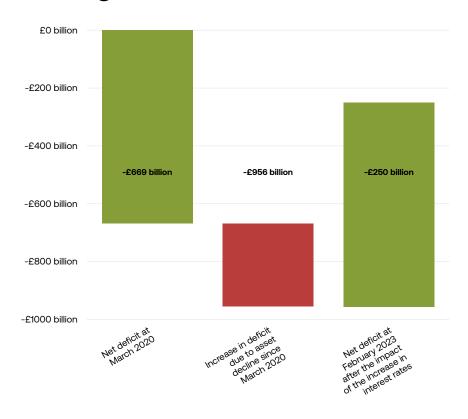
The rules also meant that listed shares, which are priced daily, were deemed too risky. This further amplified shift in asset allocation, namely the wholesale liquidation of equities holdings – especially UK equities – on account of the tax change described above. These were first replaced by corporate bonds of high credit quality that carried low risk (and of course low return) and then, following changes to eligibility for collateral in the wake of the financial crisis of 2008 to 2009, even lower return government bonds.

Yet the increase in pension-fund liabilities was purely accounting-driven. Having peaked at more than £1.9 trillion in July 2020, these very same liabilities had decreased to approximately £1 trillion by the end of 2022, a reduction of £900 billion, while the funds' actual cash outlays did not change as a result.

The rapid and massive reversal of the earlier increase in liabilities was solely driven by the unwinding of the earlier, decade-long decline in long-term interest. From 2020 to the end of 2022, the long-term bond yield at which pension liabilities are discounted increased from 0.2 per cent to 3.4 per cent, restoring pension-fund liabilities more or less to their position of a decade prior. The increase in liabilities was simply a temporary accounting representation.

FIGURE 3

The reduction in DB pension deficits since March 2020 is attributable to rising interest rates



Source: Pension Protection Fund Purple book 7800 Index. Ondra estimate for 28 February 2023 deficit.

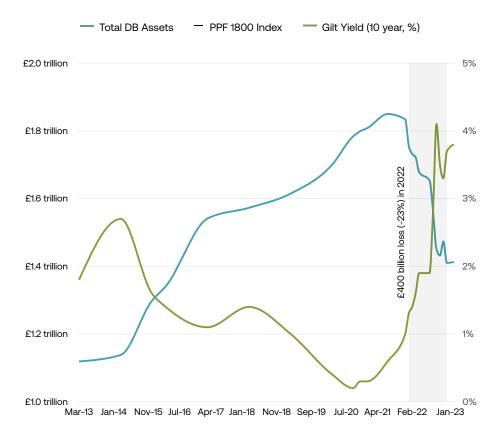
Change in net funding position since March 2020 – total assets minus liabilities (estimated full buyout basis).

During this period – and as a direct consequence of this unprecedented portfolio shift – the average return on UK pension funds declined steadily, as funds shifted from long-term return generation to risk and volatility aversion.

In the decade before the changes above were first introduced, the UK's DB pension funds returned an average of approximately 9 per cent to 10 per cent per annum¹⁸ while, in the two decades since, they have averaged just 6 per cent. Actual returns over this period were even lower, as total pension-fund assets declined from £1.8 trillion to £1.4 trillion, a reduction of £400 billion or 23 per cent of asset value. A rough estimate indicates returns are down to just 3 per cent over the past ten years.¹⁹

FIGURE 4

As interest rates rose, DB pension portfolios were exposed as a concentrated leveraged bet on continuously low rates



Source: PPR Purple Book, PPF 7800 index, Bloomberg

This poor investment performance has attracted little attention, largely because of the accounting-driven offsetting reduction in systemwide liabilities.

As the chair of BT's pension fund put it in a recent public statement after a fall in asset values of more than £10 billion, "We saw further steep rises in interest rates during September, during which time our hedges continued to perform as expected, and there has been no worsening in our estimated funding position... These investments are designed to fall in value when changes to interest rates or inflation levels cause the Scheme's liabilities to fall, and vice versa, and have made an important contribution to the reduction in the funding deficit since 2020."

That consultants could design and trustees could approve an investment strategy that was intended to generate a fall in the value of a pension fund's assets is beyond comprehension.

This apparent accounting symmetry also ignores the actual reduction in bonds' value from an inflation-induced increase in interest rates.

To illustrate one fund contributing to this £400 billion aggregate loss, the John Lewis Partnership's pension assets declined from £7.2 billion in January 2022 to £4.4 billion in January 2023, a reduction of £2.8 billion, or approximately 40 per cent, while its pension liabilities ended the year at "£4,490m, down from £6,752m at January 2022" due solely to the increase in interest rates. 21

However, while the John Lewis pension fund's hard obligation to pay cash to its pensioners over time – estimated at an aggregate of around £11 billion – plainly did not decline as a result of the interest-rate reversal in 2022, the value of the fund's assets available to generate future returns to underpin these very same obligations has in fact fallen by almost £3 billion.

This is the equivalent of trying to convince a homeowner that a 23 per cent reduction in the value of their property due to an interest-rate increase is in fact economically neutral since at the same time they enjoyed a perfect offset from the lower value of their future mortgage repayments.

The Effect on Domestic Capital Markets and UK National Security

The primary function of a nation's capital markets is to channel the country's savings into productive investment, which in turn underpins long-term growth and productivity through superior capital allocation. Capital markets in this country have ceased to perform that function, in part as UK fund managers now have so little remaining allocation to UK listed shares.

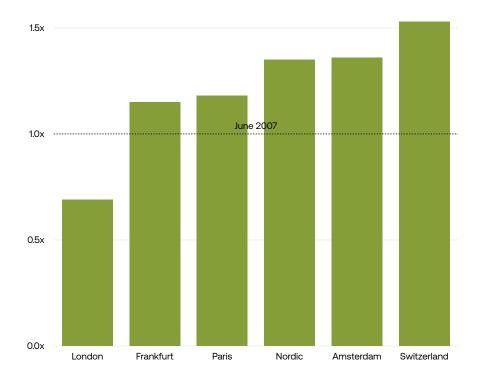
In effect, the LSE has today become a trading platform whose capital-raising activities lack a domestic investor base. The value of listed companies on the LSE has gone from the third largest in the world in the early 2000s to a fragile hold around tenth place today, in line with the value of Saudi Arabia's and Toronto's exchanges. The founder of a \$92-billion investment firm recently urged a FTSE 100 company to transition its primary listing to New York, saying, "What's the point of remaining listed in London when all of the domestic investors have disappeared?"

The UK is the only major European market whose value remains below its 2007 level, as shown in Figure 5. Indeed, the value of all listed UK equities today is some \$1.3 billion below where it was in mid-2007.

Beyond the emergency funding requirements triggered by the pandemic, one of the last material primary-equity issues (greater than \$1 billion) by a widely held UK company was in 2019 by AstraZeneca. Even though the funds were raised to expand its heartland oncology business, an equity issue by a FTSE 100 company of just 3 per cent of its shares outstanding was viewed as so unusual and out of character that it prompted widespread suspicion and shock headlines "AstraZeneca Gets an \$8 Billion Punishment [reduction in its market value]".²⁴

FIGURE 5

The UK is the only major European country whose stock-market value is significantly lower than it was before the global financial crisis



Source: Bloomberg – Total market capitalisation of listed companies on exchanges in USD, June 2007 vs. March 2023. Data per end-March 2023. "Nordic" includes Norway, Finland, Sweden and Denmark.

In the wake of this, market participants suggested that AstraZeneca's experience "could become an unwelcome deterrent to other companies". The general reaction was that UK companies should not attempt to raise equity anymore. Interestingly, AstraZeneca's share price has almost doubled

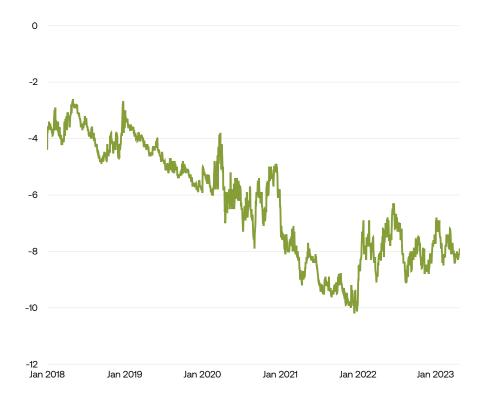
since the date of that share issue, in material part due to the success of the expansion funded by that very same equity issue, in which there was almost zero participation by UK investors in what is now the UK's largest company by market capitalisation.

This shrunken pool of domestic-equity investors, amplified by the extreme risk-aversion and income orientation of what little remains, has stunted the UK's development of new industries and technologies that require long-term risk capital. This could well be a contributing factor to the UK's productivity deficit: over the past 15 years, since the main pension changes, the UK's business investment as a proportion of GDP has lagged European and global peers by an average of 2 per cent to 8 per cent per annum, with the gap now an average of 6 per cent below its peers.²⁶

Furthermore, the inability to fund the UK's own infrastructure has forced this country to appeal to overseas investors, whose aggregated and sizeable pension funds and their long time horizons are clearly able and willing to fund what the UK economy cannot. Today, five out of six of the UK's main energy companies, and all of the UK's gas-distribution companies are under overseas ownership, as well as much of the UK's water and rail industries.

FIGURE 6

UK companies are consistently undervalued relative to peers

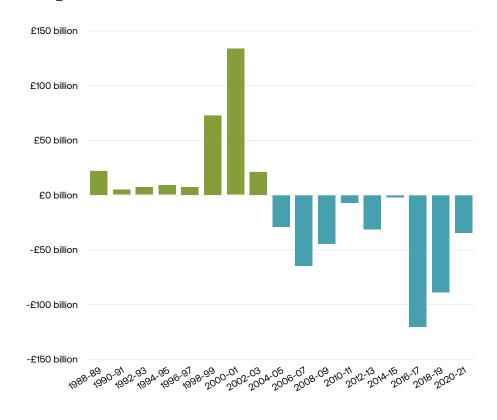


Source: Ondra. FTSE 100 price-to-earnings ratio minus S&P 500

Capital-intensive projects in the UK are now almost entirely reliant on foreign investment (for example, HS1 high-speed rail, wind farms, solar power and toll roads). The UK's technology ambitions are steadily slipping as British companies increasingly need to look overseas for new capital, including in such sensitive sectors as semiconductors (for example, Arm and Newport Wafer Fab (NWF)), cyber-security and Al (for example, DeepMind and Google), defence (for example, Cobham, Ultra and Meggitt, which have been sold either to private equity or to US acquirors)²⁷ and many biotech companies (Immunocore, Exscientia, Autolus, Adaptimmune and Kymab, the latter of which listed in the US before being acquired by Sanofi).

FIGURE 7

The UK flipped from being a net acquirer of foreign companies to having net inward acquisitions between 2003 and 2004



Source: Ondra. Total net value of outward / (inward) mergers & acquisitions of UK companies, in billions of GBP

Case Study: UK Corporate Finance and Long-Term Growth Capital Are in Palliative Care

The liquidation of the listed UK equities market has been mirrored by a complete reversal of UK firms' mergers & acquisitions flows, as shown in Figure 7. In the decade to 2003, UK companies acquired foreign companies at an annual rate of £17 billion (net) on average. This trend totally reversed in the early 2000s and foreign companies became net acquirers of UK companies at a rate of £24 billion per annum. This is a striking retreat from the earlier era of global ambition for UK firms.

As a result, by far the biggest fee payday for investment firms from advising a UK company arises not out of supporting ambitious long-term global growth and value-creation plans such as capital raisings and outbound acquisitions. Rather, it comes from being the so-called defence advisor in the event that the company is approached by a bidder and then sold, typically to a foreign company, very often since UK companies look so cheap relative to their peers. Absent a reservoir of supportive long-term growth capital, UK companies now grow less rapidly than their peers, which is why companies from so many other countries can see long-term value potential that is simply not within the grasp of a UK listed business.

In this way, listed UK companies are worth far more dead than alive to their established UK corporate advisors, who have become, in effect, specialists in palliative care. Rather than being encouraged by investors focused on growth to fight for a reboot and investment in the business, perhaps under a new, revitalised board and management, the Boards of UK listed companies are often urged to avoid risk, prioritise dividends and, when their time comes, succumb quietly to the inevitable offer that follows years of sub-par growth, often with the promise of "50p more and a dignified ending" for the chair, CEO and non-executive directors. This is why so many UK companies have so readily capitulated to foreign buyers over the past two decades.

Ironically, the fact that UK companies can attract foreign buyers is seen as a sign of national and corporate health. Yet, as we argued in *Transparency, Accountability, Predictability*, a 400 per cent increase in foreign takeovers since 2015 has not led to more business investment in the UK.⁵⁴

A Banquet of Economic Consequences

While the supply of creative energy, dynamism and ambition has always been abundant in this country, the supply of long-term equity-risk capital to unlock and achieve its potential has over the past two decades simply drained away.

This mismatch does not do justice to this nation's talents, especially those of the younger generations. If nothing is done about it, this void will be magnified as the remaining pension assets are gradually transferred to insurance companies via buyouts as described below. What is then left of domestically held equity capital will be liquidated to buy bonds and lost forever.

A system that was originally designed to secure pension-fund members' benefits has instead:

- Burdened corporate sponsors with artificially ballooning liabilities
 and resultant onerous, one-way, additional contribution obligations
 aggregating more than £300 billion since 2004 that has drained precious
 capital from long-term investment in the UK's growth and productivity.
- Reduced overall returns on DB pension funds from approximately 9 per cent to approximately 6 per cent (or even lower once the £400-billion reduction in asset value of 2022 is taken into account), inserted additional risk into the UK DB pension system and deprived an entire generation of savers of participation in the biggest global bull market in equities in their lifetimes.
- Threatened the stability of the UK's entire financial system and required the Bank of England (backed by the Treasury) to intervene to stave off a crisis.
- Left the majority of employees entering the UK workforce after mid-2000 with inadequate contributions and no participation in large, diversified savings schemes that could pool risk and generate superior returns through scale and professional management.

- Undermined the UK's national security and sovereignty through an unnatural and disproportionate dependence on overseas capital, including in vital infrastructure, technology and energy security.
- Compelled UK pension funds and institutional investors to liquidate
 virtually the entire stock of domestic equity capital investment, leaving
 practically no domestically owned equity to support UK companies'
 global ambitions for scale-up, new business formation and long-term
 business investment.
- Led to the slow-motion collapse of London's relative standing as a
 global financial centre. With hardly any domestic equity capital, London's
 capacity to raise capital for UK companies is at a low or for that matter
 global companies with only one new corporate IPO since the beginning
 of 2022.

Who Has Benefited From This System

The current system has therefore in effect served no one's interest except the pension consultants, who assisted funds and their sponsors to adapt to the changed rules, and the life-insurance companies, who are now benefiting from relieving UK companies of the accounting-driven burden, though they did not design the system.

Pension consultants

Given the complex and technical nature of pensions and the sums involved, UK companies have required continuous input from pension advisors and investment consultants. As a result, there are today some 5,500 clients of DB pension schemes who, in effect, have no choice but to employ their services.

After the changes of the early 2000s, aggregate revenues of the big four pension consultants and managers at least tripled over the decade to 2018.⁵⁵ In response to complaints, the Competition and Markets Authority found an adverse effect on competition in the pension-consulting sector, with potential substantial customer detriment and negative impact on scheme outcomes accumulating and compounding over the long time horizon of pension investments.

Life-insurance companies

Pension funds have harmed the valuation, credit rating and access to capital of UK companies to such a degree that a thriving business has arisen within the insurance industry to relieve them of this burden. These are buyouts in which an insurance company will take over responsibility for the fund's assets and liabilities in exchange for an exit payment from the sponsor.

The insurer then uses the assets of the fund to purchase annuities and, in effect, the entire remaining non-fixed-income elements of the portfolio are sold and converted into bonds, further draining the supply of domestic equity capital to UK companies. Since 2002, insurers' holdings of UK listed equities have declined from 20 per cent of the UK market to just 2 per cent today, almost exactly mirroring the reduction of the DB pension funds. 56

This activity is highly profitable for UK life-insurance companies, which are now estimated to earn more than £3 billion per year in aggregate from the buyout market, which only exists because of the pension-regime changes of the 2000s.⁵⁷ In the immediate aftermath of the September 2022 crisis, insurers' share prices fell significantly, with brokers highlighting revenue impact following decline in assets under management as well as potential reputational risk concerns.⁵⁸



Learning Lessons

Despite the damages of the September pension crisis, both TPR³⁵ and the Financial Conduct Authority³⁶ appear set on forcing the UK's DB pension plans to invest more in low-risk assets, such as bonds, and even less in growth assets. The reforms have sparked concerns from various quarters, with warnings that they could harm economic growth from investors, corporates and pension funds.

Rather than driving a zero-risk investment approach in DB pensions, the UK should seek to learn from examples in the UK and abroad on how to reform DB pensions to benefit savers, corporations and the economy. Priorities include breaking the corporate link, learning from the success of the Pension Protection Fund (PPF) and seeking scale to diversify asset allocation and increase returns.

Breaking the Corporate Link to Reduce Risk and Increase Returns

As discussed above, the corporate link has introduced risk to DB pensions, limited corporate sponsors' ability to invest and grow, and had a destabilising effect on the entire UK financial system.

The corporate link has made DB pensions less secure in two ways. First, corporate sponsors' legitimate risk aversion together with the accounting treatment of liabilities has artificially distorted asset allocation towards an extreme overconcentration on low-return government bonds. Not only are DB funds overall 3 percentage points per year lower than more diversified funds (including the PPF), they are also 3 percentage points per year lower than the very same funds in the decade prior to the imposition of the corporate link.³⁷

Since its creation, the PPF has demonstrated the capability to run largescale pension funds and to generate competitive returns, proving that there is no cultural barrier to responsibly balancing risk and return. Yet the only way a small, high-cost and low-return pension fund can become part of the PPF, and so be freed from the corporate linkage that adds risk and constrains returns, is for its corporate sponsor to go bankrupt.

This concentrated over-exposure to interest-rate risk was one of the main factors that drove the Dutch government to decide in 2018 to fully sever the corporate link, in effect replacing DB pension entitlements with pension expectations based on long-term return outcomes. Crucially, the Netherlands Bureau for Economic Policy Analysis (CPB) stated that the consequence of this change was that "Pension fund investment policy can then turn from guaranteeing pension levels towards achieving good results in the longer term." Also under the change, which will come into effect at the end of June 2023 after forthcoming approval by the Dutch Senate, Dutch companies will no longer be required to show DB pension funds' assets and liabilities on their balance sheets.

Second, DB funds' distorted allocation of assets to low-return bonds has had the effect of turning the entire UK pension-fund system into an unhedged, leveraged bet on the persistence of the historically low interest rates and inflation that followed the financial crisis of 2008 to 2009. These risks were exposed by the LDI crisis in September 2022, as described above.

The PPF: A Professionally Managed Global-Scale Fund

The PPF, established in 2004 with a mandate to take over the pension funds of failed UK companies, has ended up accidentally proving in the UK what has long been established and understood in other countries: that a combination of scale, professional management, extended time horizon, and elimination of the corporate link and its associated accounting orientation creates the conditions for superior long-term returns. Small DB pension funds have been transferred to the PPF more than 1,100 times.⁴⁰

Since its creation, the PPF has demonstrated the capability to run largescale pension funds and to generate competitive returns, proving there is no cultural barrier in this country to responsibly balancing risk and return. Yet the only way a small, high-cost and low-return pension fund can become part of the PPF, and so be freed form the corporate linkage that adds risk and constrains returns is to go bankrupt.

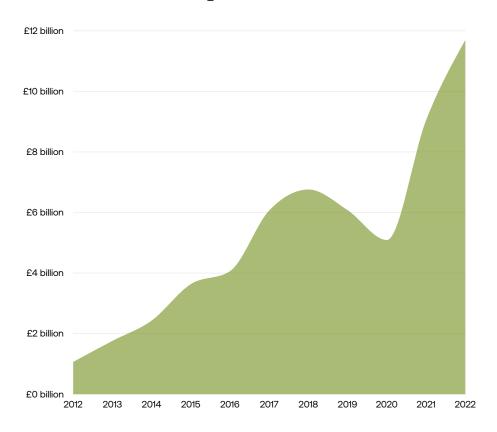
Upon the transfer of a pension fund to the PPF from a corporate sponsor, three crucial things occur:

- The fund is automatically decoupled from its original corporate sponsor and its mandate changes from eliminating risk for the corporation to generating long-term returns, with no fixed time horizon, from a diversified pool of assets and at a given level of risk. In other words, the mandate – and therefore asset allocation and investment performance – becomes more aligned with normal pension funds (see Figure 10).
- Its scale is instantly transformed from the average UK pension-scheme size of roughly £400 million to a global-scale fund of around £40 billion with best-in-class, cost-effective management and governance.
- The fund achieves better returns on assets. The annual return on the
 entire UK DB pension system has averaged around 6 per cent per year,
 which compares with an average return approaching 9 per cent per
 year on the very same funds once they are transferred to the PPF a
 significant difference, especially when compounded over time.

The PPF first started to take over pension schemes in 2006 and crossed the threshold of £1 billion in assets under management in its third year. Today the fund manages assets approaching £40 billion, approximately £12 billion of which is the surplus generated in a large part by its investment performance. According to its accounts for the financial year 2021–22, of the assets managed by the PPF, approximately £20.8 billion is from the assets of pension schemes transferred to the fund and recovered assets from insolvent corporates, almost £9.5 billion is from investment returns, and £8.9 billion is from the PPF levy it collects from DB pension funds.⁴¹

FIGURE 8

Today the PPF has approximately £12 billion of total reserves thanks to its investment performance



Source: PPF Annual reports. Total reserves=net assets-actuarial estimate of liabilities.

Larger Funds Generate Superior Returns

In 2018, the World Bank undertook a comprehensive study of the Canadian pension system, highlighting the features they believed had contributed to the consistent delivery of superior outcomes for Canadians. The study found that, over the previous two decades, a "Canadian model" had emerged, combining strong independent governance, professional in-house

investment management, scale, and extensive geographic and asset-class diversification. This combination has been shown to improve performance and create a "virtuous circle of trust" over long time periods.

Today, total pension assets in Canada have overtaken the UK and two of the world's 20 largest pension funds are Canadian, with much of the growth that gave them this status occurring over the past 25 years.⁴² The UK, which has an economy almost twice the size of Canada's, doesn't even have a pension fund in the world's top 40.

The World Bank report reached three conclusions: pension funds with sufficient scale are able to obtain access to differentiated investment opportunities that improve outcomes and drive down costs; an appropriate weighting of in-house investment-management expertise also tends to result in improved returns (even after accounting for additional costs); and pension portfolios that are highly diversified by both geography and asset class tend to achieve better results.⁴³

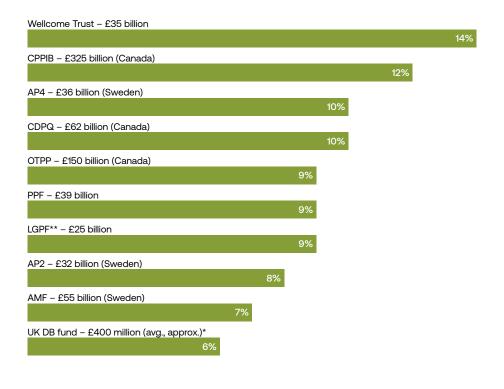
In 2018, the UK Department for Work and Pensions (DWP) released a white paper on Protecting Defined Benefit Pension Schemes, stating that consolidation can help reduce scheme running costs per member, provide more effective and efficient investment strategies, and improve governance. The paper also noted that larger funds invest more in alternatives like infrastructure, hedge funds, property and private equity, with decreased investment in fixed-income assets such as bonds. According to a study cited by the DWP, internally managed funds, which are more common in larger institutions, have better investment outcomes.

The paper stated the government's intention to consult on the creation of superfunds – consolidator funds that are aggregated and decoupled from their corporate sponsors and thereby freed to invest in assets that produce higher returns in the longer term. Similar to the findings of the World Bank, the DWP concluded that larger funds earned better returns with better governance and at lower cost per member (see Figure 9). Notwithstanding this recommendation, the Pension Schemes Bill (now the Pension Schemes Act 2021) was introduced in the House of Lords in January 2020 without provisions for superfunds.

FIGURE 9

Scale and asset allocation drive investment return

Average investment return, April 2013 to April 2023



Source: Public information, individual pension fund reporting, New Financial

The DWP report was followed by a consultation period that sought reactions from the financial-services industry. The strongest negative responses came from the UK insurance industry, which is estimated to earn roughly half of its profits from buying pension funds from corporate sponsors. The main concerns expressed by the insurance industry were that superfund plans do nothing for those in the most poorly funded employer pension schemes

 $^{^{\}ast}$ Prior to taking account of 2022 loss in the asset value of £400 billion

^{**} LGPF = local-government pension funds

and that they would "create an untested, light-touch regulatory regime which incentivises employers with well-funded pension schemes to offload their liabilities to profit-seeking financial institutions because it would be considerably cheaper than buying them out with insurers."

FIGURE 10

Asset allocation isn't a cultural phenomenon

AVERAGE UK DB FUND	
Global equity (Share of which are UK equities)	15% (<4%)
Fixed income	70%
Property	5%
Cash/other	~10%

PPF	
Return-seeking assets	41.5%
Liability-hedging assets	40%
Hybrid assets	12.5%
Cash	6%

LOCAL GOVERNMENT PENSION SCHEME			
Global equity (Share of 50%+ (15%) which are UK equities)			
Fixed income	20-25%		
Private markets	15%		
Infrastructure or property	10-15%		

WELLCOME TRUST				
Private equity	37%			
Public equity	35%			
Hedge funds	12%			
Property	8%			
Cash & bonds	8%			

Source: New Financial, PPF, Local Government Pension Scheme Advisory Board, Wellcome Trust and Ondra analysis

Consolidation of Local Government Pensions

In 2015, the UK government began a consultation to assess the benefits and risks of pooling assets in the Local Government Pension Scheme (LGPS). The final report supported asset pooling, highlighting its ability to offer cost efficiencies through economies of scale. The plan aimed to create larger asset pools with a minimum of £25 billion in assets. Since 2018, the UK's 86 LGPS have been progressively consolidated into eight pooled funds, with the largest managing over £55 billion, and further consolidation is expected.

Local authorities' pension-fund asset allocation takes a balanced approach, focusing on creating value rather than de-risking. These schemes invest 40 per cent to 50 per cent of their assets in equities (of this proportion, roughly one-third is invested in the UK) and only 25 per cent to 30 per cent in bonds, 45 with the rest split between fixed-income assets and private markets like infrastructure and property. Over the past nine years, local authorities' returns have averaged 9 per cent per year, 3 percentage points higher than the private-sector DB pension funds. 46 The market value of these funds grew from £180 billion to over £360 billion, while paying out more than £120 billion to pension members with minimal contributions from local authorities. 47



Creating GB Savings, the UK's First Superfund

The UK needs investment in its economy, its infrastructure, its ideas and its entrepreneurship. The UK currently has one of the largest pensions markets in the world. However, one significant barrier to taking advantage of its economic strengths is its inability to effectively deploy available capital. Despite this advantage, overseas pensions invest 16 times more in British venture capital and private equity than domestic public and private pensions do.

The UK's DB pension industry is fragmented, comprising more than 5,200 schemes with an average size of £330 million. Driven by risk-averse corporate sponsors and finite investment horizons, they have typically pursued a zero-risk investment strategy since the regulatory changes of 20 years ago.

By breaking the corporate link, consolidating the fragmented pension industry and leveraging the proven investment capability of the PPF, the UK could create superfunds that would have genuinely global scale (£300 billion to £400 billion each) within three to five years and generate better, more secure returns than the fragmented funds today.

Create a GB Savings Superfund With an Infinite Investment Horizon

First, we recommend leveraging the success of the PPF by turning it into the UK's first superfund: GB Savings.

Instead of a UK company having to become bankrupt for its pension fund to be transferred to the PPF and professionally managed at scale, it would simply have the voluntary option of transferring itself in with a required payment or scheduled payments of a capital buffer for continuity of benefits, as described by DWP in their December 2018 report. This capital buffer

would replace the employer covenant with assets and liabilities transferred to GB Savings, with no further recourse by the fund to the original sponsor nor any further inclusion in its balance sheet, as recommended by DWP.

Since the PPF is well practiced at absorbing existing DB pension schemes, this process should be both easy and, subject to the necessary legislative changes, relatively quick. Many corporate sponsors of smaller DB pension schemes would therefore have a significant incentive to shift their funds to GB Savings as soon as possible. The government should prioritise the smallest 4,500 schemes for consolidation.

The approach outlined here would require several modifications to the arrangements under which PPF is currently constituted. These include adapting its objectives to the increased scale and establishing an appropriate mechanism for risk-sharing beyond a certain level of benefit, such as a base level plus the potential to benefit from any surplus returns.

The PPF's essential infrastructure, risk-management systems and governance has been in place and consistently proven over the last nearly 15 years of operation. The fund should therefore continue to function well at a larger scale supported by a world-class investment team and infrastructure.

In addition, the £20 billion National Employment Savings Trust (NEST) should be folded into GB Savings, adding to the initial scale of the fund, giving NEST's members access to expert pension advisors and giving the fund the opportunity to participate in defined-contribution (DC) pension consolidation (see below).

Consolidating the DB funds into the PPF to create GB Savings (or other similar superfunds) would, through greater diversification, a longer time horizon and access to higher return-on-investment opportunities (as established by the DWP), eliminate the need for financial engineering and leverage (for example LDI) to compensate for the low returns on bonds. Larger, more diversified and professionally managed funds would be more resilient and less exposed to the shocks, consequences and losses for example arising from concentrated bets on interest rates remaining low.

This proposal also addresses the insurance industry's concerns about the DWP's consultation on superfunds. First, this proposal prioritises the smallest 4,500 funds, and second, the PPF is a non-profit entity, which would be reflected in the terms on which funds would be transferred to it and eliminate the requirement to provide for either a profit or a return on capital. In addition, it is likely that the returns generated by GB Savings will, if history is any guide, materially exceed the returns earned by predecessor pension funds, as the PPF has consistently demonstrated.

Incentivise Consolidation in DB Pension Funds

We also recommend incentivising wider consolidation in the DB pension industry by making pension-fund tax advantages dependent on consolidation. Pension funds currently enjoy a significant tax advantage of a multi-decade deferral of tax on income and capital gains until it is paid out to pensioners. This costs UK taxpayers some £10 billion per year in foregone income and capital-gains taxes. To incentivise consolidation, we recommend retaining these tax privileges but making them conditional on:

- A minimum fund scale of £25 billion.
- A required minimum share of the total fund invested in UK companies and qualifying infrastructure assets – say 25 per cent of all assets. This approach has previously been successfully adopted in Canada.

Currently, both the PPF and the LGPS would meet or exceed the 25 per cent investment threshold. The mechanism of consolidation would be similar to that proposed by the DWP in 2018, whereby assets and liabilities from DB pension funds are transferred into a consolidated fund upon payment of a capital buffer for continuity of benefits.

Extend the Benefits of Consolidation to DC Pension Funds

The DC pension market remains highly fragmented, with nearly 27,000 schemes. Combined with the well-meaning but ultimately self-defeating fee-cap regime, the DC market has come to mirror many of the shortcomings of the funded pension system – fragmentation, lack of diversification and mediocre performance.

In addition, providing for retirement for around one-third of the UK workforce not covered by the legacy DB schemes – mainly owner-entrepreneurs, the self-employed, public servants and NHS employees – is today on a pay-as-you-go basis with no corresponding savings fund. The entire burden therefore falls on the current expenditure budget of the various levels of government.

In June 2021 the DWP further consulted on consolidation in the DC pension market. The consultation stated that consolidation would deliver benefits for members as larger schemes would be less likely to fail key governance criteria, charges would typically be lower and investment portfolios would be likely to perform better. These are the exact same benefits that would apply to the DB pension sector.⁴⁸

This large and growing group of next-generation savers should therefore also, over time, be allowed to benefit from consolidation, with their funds offered the opportunity to transfer either into an arm of GB Savings or into a similar superfund.

Create a Sustainable Future for Public-Sector Pensions

The biggest challenge in the pension market – and the biggest potential prize – is public-sector pensions. Public-sector pensions are currently unfunded DB schemes, meaning that while monthly contributions are made, no investment fund is built up to meet future liabilities. Instead, teachers,

health workers and the armed forces pay contributions every month to the Treasury, which in turn makes payments to meet pension obligations to retired public-sector workers.

In 2023–24, the Office for Budget Responsibility expects £53.1 billion in public-sector payments to be made with just £45.3 billion in contributions coming in, leading to a £7.9 billion deficit.⁴⁹ This deficit is likely to rise in the future given the workforce shortages across the public sector. The lack of an investment fund to cover these pensions hurts both public-sector workers and taxpayers.

Globally, many of the largest pension superfunds are for public-sector workers. As the UK pension market consolidates, the country's public-sector workers should be able to benefit from GB Savings or similar superfunds. While there is no short-term fix for this problem, a Dutch-style ten-year transition to a system built around an investment fund should be part of a public-sector workforce strategy and would provide a more sustainable state of affairs.

Create the Option for Future GB Savings Superfunds

Ultimately, the scale and fragmentation of the UK pension market mean there is considerable scope for consolidation. Having established GB Savings, the government should establish further GB Savings funds (based on the proven PPF model) that participate in consolidation in parallel with and modelled on the original GB Savings, or a series of replica funds that sit within a master governance structure under the existing PPF-GB Savings 1 fund.

The primary candidates for such GB Savings superfunds include the eight local-government schemes, the troubled Universities Superannuation Scheme (which is currently having a fight with its workforce about the accounting method for determining its liabilities), the 27,000 DC schemes and, ultimately, the unfunded public-sector pension schemes.

The consolidation process would then be rolled out through a predictable and brisk process over time.

FIGURE 11

Timeline for rolling out new superfunds

TIMING	FUND	SOURCE	AMOUNT
By end of 2024	GB Savings 1	Smallest 4,500 DB funds	£400 billion or more
By end of 2025	GB Savings 2	Local authorities	£340 billion to £400 billion
By end of 2026	GB Savings 3 and GB Savings 4	Remaining DB funds	£400 billion or more each
By end of 2026	GB Savings 5	DC funds	£500 billion
TBD	GB Savings 6	Public-sector funds	TBD

In a few years, the UK would have a savings system consisting of half a dozen global-scale savings vehicles on the order of £400 billion to £500 billion, each of which would be among the ten largest global funds. In addition to better underpinning member benefits through higher returns over a long time horizon, these funds would have the capacity to deliver the productive investment the UK requires to transition to a new economy and the vital infrastructure for renewable-energy, estimated at £50 billion to £60 billion per year between 2030 and 2050.50

Consolidating the pension market into a few dozen large funds would be more transparent and easier to monitor and regulate. It would also enable best-in-class governance and in-house expertise, thereby providing much better visibility than the thousands of small, high-cost funds that are inevitably dependent on external consultants. This modernised system

would also attract and deliver the highest calibre of professional fund management that goes hand in hand with global scale instead of the present fragmented, actuarial and accounting-driven technical orientation.

Even very small – and appropriate – percentages of these large-scale, infinite-investment-horizon funds invested in growth, start-ups and scale-up enterprises would release massive sums to underpin UK investment in new technologies, productivity and scale-enhancing long-term growth of existing companies, thereby preserving the wealth creation that flows from domestic intellectual property and entrepreneurial energy for UK savers.

To tap into existing specialised investment expertise, the new consolidated GB Savings could channel some of the increase in assets into existing qualifying vehicles that have a proven track record within their field. For scale-up growth equity this could include a more ambitious role for entities with expertise in direct investments including British Business Bank's commercial subsidiary British Patient Capital, Innovate UK for life sciences and technology, and UK Infrastructure Bank for domestic infrastructure investment. There would be no need for the government to mandate specific asset allocation beyond the UK component identified above.

These superfunds would also help restore the lost vitality of UK industry by deploying long-term equity to invest in the UK's economic future – creativity, innovation, the energy transition and London as a global financial centre.

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