PENSIONS AND LIFETIME SAVINGS ASSOCIATION



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The Pensions and Lifetime Savings Association is the national association with a ninety year history of helping pension professionals run better pension schemes. With the support of over 1,300 pension schemes with over 20 million members and £1tn in assets, and over 400 supporting businesses. They make us the leading voice for pensions and lifetime savings in Westminster, Whitehall and Brussels.

Our purpose is simple: to help everyone achieve a better income in retirement.

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FOREWORD

WHEN WE BEGAN OUR WORK IN MARCH, WE SET OUT TO IDENTIFY THE CHALLENGES FACING DEFINED BENEFIT (DB) SCHEMES AND TO SEEK TO UNDERSTAND THEIR IMPACT ON MEMBERS' BENEFITS, EMPLOYERS AND THE WIDER ECONOMY.

Over the last six months we have received a great deal of interest in our work, had many offers of help, held a wide range of conversations and taken significant input from across the DB sector. On behalf of the Taskforce I would like to thank all those who have contributed to our work, and the PLSA team for all its support and hard work.

Through our evidence gathering we have identified a number of long-term structural weaknesses in the make-up of the sector, including the diversity of size, scale and governance of schemes, the fragmented value chain, and the broader legislative and regulatory framework. We have also identified a number of areas where policy interventions could help to address the impact of growing deficits and the costs and risks inherent in the environment in which schemes operate.

The findings from our Interim Report show that, on the whole, DB pension schemes are under severe pressure and without change the likely outcome will be hardship for members or sponsors.

There is a clear economic imperative to address the issues identified, for the health of both individuals and the wider economy. It is becoming increasingly apparent that the opportunity to make a meaningful difference is diminishing as the sector matures and the cost of inaction is too significant to ignore.

Over the coming months the Taskforce will seek to examine these challenges further, develop proposals and build consensus across the industry around solutions that could help to ensure the sustainability of DB schemes.

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EXECUTIVE SUMMARY

DEFINED BENEFIT PENSIONS MATTER TO MILLIONS OF SCHEME MEMBERS WHO ARE RELYING ON DB SCHEMES TO SUPPORT THEM IN RETIREMENT. DB SCHEMES ALSO MATTER TO THE ECONOMY – £1.5TN INVESTED THROUGH DB SCHEMES SUPPORTING ALL OF THE UK ECONOMY THROUGH INVESTMENT IN BUSINESSES AND INFRASTRUCTURE AND BY PROVIDING INCOME FOR PENSIONERS THAT TURNS INTO CONSUMER SPENDING.

Yet, the current system is highly fragmented and requiring ever-increasing amounts of capital from corporate sponsors while at the same time attempting to reduce risk for members and sponsors. The pressures DB schemes are under are being made worse by the current economic climate. And the many risks and costs in the system are simultaneously placing strain on scheme sponsors and the wider economy. These all in turn place strain on current scheme members and future generations of pensioners, many of whom may find risk of their benefits not being paid is increasing. All this means that doing nothing is not an option.

The potentially beneficial impact on the UK economy of DB schemes is constrained by the current state of DB funding. This has been made worse by a series of external factors, including Quantitative Easing. Deficits are growing even though sponsors have been paying more in deficit recovery contributions. In short, they are running faster to stand still. The drive to reduce deficits may be

crowding out investment in jobs, wages, dividends and corporate growth. And it also may impact employers' willingness and/or ability to fund the DC pension contributions of the majority of today's workers. Indeed, the focus on deficits diverts attention away from the real issue - namely the probability of paying members' benefits. This in turn raises the question of whether we are measuring the right thing, and the efficacy of our measures.

Over the last several decades, there has been a shift towards investment de-risking as DB schemes have aimed to match assets and liabilities. This has the effect of placing a longer term reliance on the scheme sponsor, and thus may not be achieving a net reduction to member benefit risk but instead, at aggregate level, may simply be moving risk around.

The current state of DB schemes also poses a significant risk to members' benefits for all but the most strongly funded schemes. This is particularly so given that the risk to benefits increases in an economic environment in which interest rates continue at current ultra-low rates (which we call a 'lower for longer' scenario). The PPF helps to mitigate that risk - and is doing a good and necessary job in protecting scheme members. But members are still bearing the risk the PPF does not cover. Members, also, are not aware of the risks that their benefits are not guaranteed, or the risk

that they may not be paid in full.

There are almost 6,000 DB schemes in the UK, many of which are small schemes supported by small employers. Smaller schemes are less likely to have access to high quality governance; this matters because good governance is central to good quality and efficient pension provision and the reduction of benefit risk. Additionally, smaller schemes cannot leverage economies of scale and attract the quality of skills needed to operate and invest efficiently. Furthermore, the highly intermediated nature of the UK pensions system results in value leakage.

Scheme members need to be properly protected by the regulatory framework. But the regulatory framework must also support and encourage sponsors and trustees to operate efficiently and reduce benefit risk. However, the current, fragmented nature of the UK pensions system, with a large number of sub-scale schemes means regulators and government must regulate to the lowest common denominator. The system we have is not working perfectly- it is inflexible and costly. Moreover, the current system only allows binary outcomes of complete 'success' or complete 'failure'. Greater benefit and regulatory flexibility may help to achieve earlier scheme resolution with better, ultimate, outcomes for scheme members.

FINDINGS AND NEXT STEPS

THE INTERIM REPORT HAS IDENTIFIED A NUMBER OF RECURRING THEMES THAT SUGGEST AREAS WHERE POLICY INTERVENTIONS COULD FOCUS:

- The current system is too fragmented. Work should be undertaken to investigate the potential for scheme consolidation, which could help secure more economically viable schemes able to deliver better value to scheme members and their sponsors.
- The current regulatory approach to scheme resolution is inflexible.
 Work should be undertaken to investigate how changes to the system could deliver better solutions to scheme resolution and remove regulation that adds cost but has little or no tangible benefit.
- The current approach to benefit design and benefit change is rigid. Work should be undertaken to investigate how a more flexible approach to benefit design could be implemented to help sustain schemes.
- The current approach to pension scheme risk bearing is sub-optimal. Work should be undertaken to develop better measures of benefit risk.

Over the next six months the DB Taskforce will work with stakeholders from across the pensions and investment sector, government, regulators and the social partners to develop solutions and recommendations to support the sustainability of DB.



UNDER PRESSURE – DB TODAY

- **DB** matters to millions of people who are relying on DB benefits to support them in retirement.
- DB also matters to the UK economy £1.5tn invested in DB schemes supporting all parts of the UK economy.
- But the current system is fragmented, attempting to de-risk and requiring ever-increasing amounts of capital from corporate sponsors.
- Not only are DB scheme problems being made worse by the current economic climate, they are also contributing to economic weakness.
- So there are lots of risks and costs in the system that place strain on scheme sponsors and the economy – but also have an impact on scheme members and future generations of pensioners.
 - All this means that doing nothing is not an option.

number of DB schemes **5,945**¹

assets under mgt

DB liabilities E1956 (s179 basis)

number of private sector DB members 10_97m

pensioners in receipt of a DB pension

PPF 7800 deficit

_4hn

number of

chemes in deficit

59



percentage of UK index linked gilt market

owned by UK pension funds Deficits 2015

average

DB payout

(buy out basis)

1 Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015

- 2 PPF 7800 Index Update (August 2016), PPF, September 2016.
 3 Annual Survey, PLSA, 2015.
- 4 Purple Book DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.
- 5 PPF 7800 Index Update (August 2016), PPF, September 2016.
- 6 PPF 7800 Index Update (August 2016), PPF, September 2016.
- 7 PPF 7800 Index Update (August 2016), PPF, September 2016.
- 8 Pension Funds and Index-linked Gilts: a supply/ demand mis-match made in hell, Schroders, June 2016.
- 9 Purple Book DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.
 10 Purple Book DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

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DB SNAPSHOT

Defined Benefit pensions matter. They are a "social good", paying benefits to millions of people who rely on DB schemes to support them in retirement. The average (median) pension paid by a private sector scheme is just under £7,000 a year¹¹ and £8,000 in the public sector¹². Taken together with the state pension (£8093 a year¹³) that would take someone on median earnings (presently £22,487 a year) to a replacement rate of around 67% of in-work salary.

Each year \pounds 81bn¹⁴ is paid out in salary-related pension benefits – equivalent to the defence and housing and environment budgets combined (£46bn and £34bn respectively¹⁵) or 91% of the amount the state spent on state pensions in 2015¹⁶.

Today, 27.3 million people are benefiting (or will benefit from) a DB pension. Around 13 million are members of private sector schemes, and 14.3 million public sector schemes (funded and unfunded)¹⁷. However, the number actively accruing benefits in private sector schemes has been steadily declining over the last decade and a half, falling from 4.6m in 2000 in to just 1.6m in 2015.



FIGURE 1: ACTIVE MEMBERSHIP OF OCCUPATIONAL PENSION SCHEMES: 2000 TO 2015¹⁸

This decline in active scheme membership is a direct result of the closure of DB schemes, generally first to new employees and then to future accrual. Today, just 13% of schemes in the private sector are open to future accrual, compared to 43% ten years ago. A typical scheme's membership currently comprises just 16% active members – 45% deferred and 39% pensioner members¹⁹.

DB provision also matters to the UK economy. Today, the assets of private sector DB schemes sit at around £1.5tn²⁰, and the funded Local Government Pension Scheme (LGPS) at £233bn²¹ – together, almost equivalent to UK GDP (£1.8tn)²². Assets under management of DB private sector pension funds have almost doubled over the last decade. These assets are invested across, and help support, the economy. DB pensions are therefore also a major provider of capital to the UK economy. But they are also significant consumers of corporate capital.

¹¹ Annual Survey, PLSA, 2015. Median average annual (nominal) pension, private sector.

¹² Evaluating the Government Balance Sheet, Comptroller General, NAO, HMT, June 2016.

¹³ Single person's basic state pension, 2016/17

¹⁴ Figure derived from MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016 and Evaluating the Government Balance Sheet, Comptroller General, NAO, HMT, June 2016

¹⁵ Budget Policy paper March 2016

¹⁶ Evaluating the Government Balance Sheet, Comptroller General, NAO, HMT, June 2016.

¹⁷ Occupational Pension Schemes Survey, ONS, September 2016.

¹⁸ Occupational Pension Schemes Survey, ONS, September 2016.

¹⁹ Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

²⁰ Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

²¹ Figure derived from LGPS England & Wales Annual Report (2015) & An Overview of Local Government in Scotland (2016)

²² United Kingdom National Accounts, the Bluebook: 2015 edition, ONS, 2015.



Despite their collective size and importance, a snapshot of DB schemes today shows a sector in trouble, under pressure from increasing liability valuations relative to assets and rising longevity.

Deficits (the gap between a scheme's liability calculations and its assets) have grown significantly in recent years. This reflects growing liability values – caused in part by improvements in longevity and benefit improvements on the one hand (for example the legal requirement to index both pensions in payment and in deferment) and, more importantly in the recent past, long-term low interest rates on the other.

There are different measures for valuing a scheme's liabilities and its assets depending on the purpose for which the calculations are being carried out. As a result, different calculations will result in different deficit figures. However, on all measures, UK pension funds are, on balance, currently in deficit.



FIGURE 3: HISTORICAL COMPARISON OF S179 AND BUYOUT AGGREGATE FUNDING LEVEL OF PRIVATE SECTOR DB SCHEMES²⁴

At the end of August 2016, combined PPF deficits (ie deficits calculated on a S179 basis)²⁵ stood at \pounds 455.5bn – an increase from \pounds 405bn in July 2016. 5,042 of the 5,945 schemes in the PPF universe

23 Purple Book - DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

Protection Fund. As a result the liabilities are lower than the amounts required to meet full benefit payments.

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²⁴ Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

²⁵ A section 179 valuation is based on paying benefits that take into account key features of the levels of compensation paid by the Board of the Pension

(85%) are in deficit on a PPF basis. Sensitivities in the factors used to measure deficits – in particular interest rates (gilt yields), inflation and investment returns – creates volatility in deficit measurement. Between December 2007 and January 2008, for example, the PPF 7800 index used to measure the liabilities of schemes in the PPF universe, swung from being in surplus by £11.7bn to deficit by £48.7bn.

For sponsors the shift over the last 15 years to more stringent mark to market accounting standards has been driven by the Financial Reporting Standard 17 (FRS 17 June 2001) and more recently by FRS102 (Jan 2015). These standards have provided a great deal more transparency about the size of pension commitments, however the underlying assumptions can result in significant volatility in the financial results reported from year to year, creating challenges for company planning and budgeting.

This deficit volatility, combined with their persistence and exposure on company balance sheets has in large part driven sponsor decisions to close schemes and de-risk investment strategies.

Scheme sponsors are pumping billions into DB schemes to repair these deficits – £11.27bn in 2015 $alone^{26}$. Yet deficits persist at best, and grow at worst, not least because the long-term low interest rates environment, once seen as a temporary phenomenon, seems set to remain.

There has been a significant shift in scheme asset allocation over the last several decades. There has been a drive by pension funds to de-risk investment and to more closely match liabilities through liability-driven investment (LDI) investment strategies. Those aim to more closely match cash flows (ie payment of pensions as they fall due) but can limit schemes' ability to close deficits through higher investment returns. In turn, it places a greater focus on the covenant of the sponsor to support the scheme and to repair deficits through increased capital contributions. This is exacerbated in a low-return environment.

Key trends have been:

- A shift away from equities towards gilts (and index-linked gilts in particular). In 1993 all funded pension schemes had an allocation to UK equities as high as 57%. Today UK equities constitute only 15%.
- Holding of index-linked gilts have moved from 3% to 9% over the same time period.
- > There has been an increase in allocation to alternatives from 1% in 1996 to 9% in 2015.

FIGURE 4: CHANGES IN PENSION FUND ASSET ALLOCATION 1962-2014²⁷



26 MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016 27 Pension Fund Indicators, UBS, 2016.

The move away from investment in equities and through them in the real economy could be contributing to economic weakness, especially when combined with requests for greater capital contributions from those same corporates. This must affect the sustainability of schemes.

Across DB schemes as a whole, there are risks and costs in the system. This is especially so given the highly fragmented nature of DB provision in the UK which, unlike that of many of its OECD counterparts, lacks homogeneity. There are almost 6,000 private sector schemes²⁸. This compares to just 308 in the Netherlands and 232 in Australia²⁹, both of whose pension systems are similar in size to the UK's in terms of assets under management. Figure 5 shows that while there is a small number of schemes with a large number of assets and scheme members, there is, conversely, a long tail of small schemes (both in terms of members and assets under management). The average (mean) scheme in the TPR/PPF universe has just 1,845 members and £217m of assets under management.



FIGURE 5: NUMBER OF MEMBERS & ASSETS UNDER MANAGEMENT BY SIZE OF SCHEME³⁰

These small, sub-scale schemes are an outcome of the UK's pensions history, many established in the 1970s and 80s when DB was the norm and encouraged for employers for whom DB would not be considered suitable or viable today. However, in an environment that is far more complex than the one in which those schemes were first created, the cost of provision more expensive, and economic conditions less benign, the proliferation of small schemes creates problems for sponsors, trustees and regulators.

It has been argued that DB schemes will be paying pensions for many decades to come and that there is, therefore, plenty of time to fix the problem – not least because the current economic conditions, while they have lasted for much longer than many predicted, will be reversed at some point in the future. In other words, 'things will come good in the end'.

But a closer analysis of scheme maturity suggests that there is, in fact, a much shorter time horizon over which to tackle the issues faced by DB schemes today and that such a sanguine approach is inappropriate.

DB pension schemes are maturing rapidly as increasing numbers close to new entrants and future accrual. A greater proportion of scheme liabilities are accounted for by pensioners. This means that new contributions are falling at the same time as the level of cash the scheme requires to pay out to pensioners rises.

As a result many DB schemes are becoming cash flow negative. Hymans Robertson³¹ found that 50% of FTSE 350 DB schemes are, or will soon be, cash flow negative.

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^{28 5,945} schemes in the PPF 7,800 Index, taken here as a proxy for private sector schemes.

²⁹ Dutch National Bank (2016) and Australian Prudential Regulatory Authority (2015).

³⁰ Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

³¹ Building Resilience to Risk, Hymans Robertson, June 2016.

Well-funded schemes should be able to arrange their assets so that their cash flow requirements can be met in an orderly way, minimising the risk of forced sales of assets in depressed markets. Underfunded schemes, however, (which currently account for the majority of DB schemes) face an increased risk of having to sell assets at an inopportune time. Depressed markets exacerbate this problem.

TPR has estimated that the average scheme³² has between 16 and 18 years before it reaches peak cash flows (also described as 'peak maturity'). This suggests that while schemes may be paying out pensions for 70 years or so, schemes that are in deficit have a limited time to make up this deficit before they become exposed to the risks of selling assets at inopportune times, further restricting their ability to close their deficit. And failure to repair deficits through investment returns will mean the only source of capital will be capital contributions from sponsoring employers.

Rather than 40-50 years to fix the DB 'problem' much more urgent action is required. Without change the only likely outcomes are that scheme members will suffer and/ or scheme sponsors and other employees will suffer.

32 Annual Funding Statement Analysis: A review of defined benefit pension schemes with valuation dates between September 2015 and 2016 (tranche 11). TPR, May 2016. This analysis estimated the average cashflow duration of DB schemes based on a Technical Provisions liability data.



THE IMPACT ON THE ECONOMY AND EMPLOYERS

- DB pension funds are big economic actors, but their potentially beneficial impact on the UK economy is constrained by the current state of UK DB funding.
- Deficits are growing even though sponsors have been paying more in deficit recovery contributions – they're running faster to stand still.
- Actions to reduce investment risk might not be achieving a net reduction in member benefit risk. In aggregate risk just gets moved around.
- The drive to reduce deficits may be crowding out investment in jobs, wages, dividends and corporate growth. And it also may impact employers' willingness/ability to fund the DC pension contributions of the majority of today's workers.
- The focus on deficits diverts attention away from the real issue ie the probability of paying members' benefits. This raises the question of whether we are measuring the right thing, and the efficacy of our measures.

THE COST OF DB PENSIONS TO THE UK ECONOMY

Pension funds, together with insurers, are the largest institutional investors in the OECD³³. As well as providing a vital means for an individual's retirement savings their size and activity means they play a much wider part in the economy.

- ▶ The UK has the second largest pensions market in terms of asset management globally³⁴.
- ▶ UK private sector DB funds own an estimated 80% of the long-dated index-linked gilt market³⁵
- ▶ UK pension funds own 10% of the conventional gilt market³⁶.
- > Pension funds are major investors in, and owners of, UK infrastructure.

Pension fund investment increases the availability of long term capital, enhances market efficiency (through, for example, arbitrage across asset classes), fosters competition and brings pressure to bear on corporate governance. Furthermore, pension fund investment activity can diversify risks across generations and support economic growth.

The potentially beneficial impact of DB schemes on the UK economy is constrained. In addition to the change from being net providers of capital to industry to now net consumers of capital described in the previous chapter, the sector is contributing to capital market dysfunctionality. The Bank of England³⁷ evidenced high levels of herding in DB sector investment, leading to capital market distortion, in particular index-linked yield suppression.

³³ Institutional Investors and Long term Investment Project Report, OECD, 2014.

³⁴ Willis Towers Watson, Global pension asset study, 2016.

³⁵ Pension Funds and Index-linked Gilts: a supply/ demand mis-match made in hell, Schroders, June 2016.

³⁶ MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016. This figure includes both normal and special contributions and DMO Portfolio summary statistics, quarterly time series data, 2016.

³⁷ Procyclicality and Structural Trends in Investment Allocation by Insurance Companies and Pension Funds, Bank of England, 2014.

THE COST OF DEFICITS - RUNNING TO STAND STILL

The persistence and scale of deficits has meant that providing a DB pension has become increasingly expensive.

Over the last 10 years employers have paid approximately £367bn to pension schemes³⁸, around £120bn of which has been special contributions (for the most part DB scheme deficit recovery contributions (DRCs))^{39 40}. In 2015 employers (both private and public sector) paid approximately £31bn⁴¹ to their DB schemes of which just over a third (£11bn) was in DRCs – equivalent to the amount spent by the UK on foreign aid (£12bn)⁴². By contrast they paid approximately £3.5bn to their DC schemes.

Over the last ten years, deficits have grown from £22.5bn in 2006 to over £400bn in 2015 on a s179 basis. On a buy-out basis, deficits have grown from £504bn to £800bn over the same time frame⁴³. Accordingly, contributions, and in particular DRCs, have risen dramatically and since the turn of the century deficit payments have grown at a much faster rate than ordinary contributions. Whereas in 1992 DRCs made up 21% of all contributions, by 2015, they constituted 34%.



FIGURE 6: EMPLOYERS' PENSION CONTRIBUTIONS (NORMAL AND SPECIAL)44

39 Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

- 43 Purple Book DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.
- 44 MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016.

³⁸ MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016. This figure includes both normal and special contributions.

 ⁴⁰ In this report we refer to the 'special contributions' referred to in ONS data as deficit recovery contributions.
 41 MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016. This figure includes both normal and special contributions.

 ⁴¹ MQ5: Investment by Insurance Companies, Pens
 42 House of Commons Library briefing, No 3714.

QE, ACCOUNTING STANDARDS AND DERISKING

A number of factors – some external and beyond the control of pension funds; others decisions taken by pension funds and their sponsors – have contributed to the need for greater sponsor support in the form of DRCs.

Quantitative Easing

Quantitative Easing (QE), the Bank of England's intervention to bolster the economy in the wake of the global financial crisis (and again in the wake of the EU Referendum to leave the European Union), has undoubtedly contributed to pension fund deficits. Analysis by the PLSA (then the NAPF) suggested that the first £200bn of asset purchases pushed down gilt yields by around 100 basis points which would have increased liabilities, calculated by reference to gilts, by around 20% (or £180bn) compared to the position in 2009 (ie before the financial crisis). The second round of asset purchases – £125bn –was estimated to have increased liabilities calculated by reference to gilts by another £125bn. These gilt movements alone, despite some off-setting increases in the value of assets (around £30bn) meant that the aggregate deficits of DB schemes increased by around £90bn⁴⁵ as a direct result of QE.

Accounting standards

Pension fund accounting rules, which require a version of surpluses or deficits to be shown in employers' financial statements, have focused attention on the financial implications of pensions for scheme sponsors. It is acknowledged, including by the accounting governing bodies, that this has had a behavioural effect on the willingness of a number of employers to continue to provide DB pensions.

The accounting framework applied to pensions determines liabilities using the current market prices of high quality corporate bonds; this introduces uncontrollable volatility in the financial results of corporate sponsors, which in turn impacts their own profits and share prices. The desire by sponsors to demonstrate sound financial management of, and stability within, their own businesses has been one of the reasons cited for pension funds purchasing large quantities of financial instruments that better match their liabilities rather than return-seeking assets. This then feeds back into the long-term operations of the sponsor as, in all likelihood, such financial instruments will generate lower returns over the long term – resulting in higher contributions from the sponsor⁴⁶.

Investment de-risking

As described in the previous chapter, the structural shift in DB provision, from open to closed, resulting in the maturing of schemes, has also contributed to a shift in schemes' asset allocation. As DB schemes have become more mature, many have chosen to reduce the volatility of their assets by switching away from higher risk/higher return assets and into assets that mirror their future cash flow requirements at a lower risk (eg index-linked gilts).

Modelling undertaken for the DB Taskforce indicates that rather than remove risk completely, unless a scheme is fully funded and has no reliance on the employer, investment de-risking may simply just move risk around the system. This is because, in the absence of full funding, investment de-risking places a greater dependency on the sponsor. Weaker sponsors cannot be relied on to compensate for lower returns with higher contributions and in such instances the risk trade-off may actually increase the risk of loss of benefits⁴⁷. At the other end of the spectrum, if strong well-funded schemes are continuing to de-risk, that may be to the benefit of the security of members' benefits.

It is not only from an employer perspective that investment de-risking can create uncertain outcomes. The Bank of England⁴⁸ expressed concern that the current investment de-risking

⁴⁵ Exceptional times, Exceptional Measures? Economic developments and the impact on UK pension schemes and members, NAPF, March 2012.

⁴⁶ Accounting for Pensions, Dr Ian Clacher and Prof Peter Moizer, Leeds University Business School, for the NAPF (now PLSA) September 2011.

⁴⁷ See the Impact on Benefits chapter for a full explanation of this modeling and the implications of investment derisking.

⁴⁸ Procyclicality and Structural Trends in Investment Allocation by Insurance Companies and Pension Funds, Bank of England, 2014.

approach by pension funds and life insurance companies could create suboptimal outcomes from the perspective of financial stability. They were concerned that institutional investors are investing procyclically, ie in a way which in the short term exacerbates market movements, or in the medium term exacerbates economic cycles. The former can distort capital markets and have longer term economic effects and the latter can be detrimental to financial stability and long term economic growth. More recently, market commentators have expressed concern that DB sector investment is contributing to pro-cyclical bond market pressures⁴⁹.

CROWDING OUT: THE IMPACT OF DEFICIT COSTS ON BUSINESS

These large contributions to DB schemes could be crowding out employer capital that could be deployed on other business activity such as wages, growth, dividends and business investment.

The wage impact

Over the last two decades, the proportion of UK employers' total allocation to different forms of employee compensation⁵⁰ has changed with proportionately increasing amounts being allocated to non-wage elements, and within that pensions, than to core wage elements. Whilst growth of the wage and non-wage components of compensation grew at the same rate at the end of the 20th century, at the turn of the millennium they began to decouple. Between 1987 and 2015, while non-pension compensation remained almost flat over the period, pension contributions increased almost seven fold. As a proportion of total compensation, wages and salaries represented 86% of overall compensation and pension contributions represented 8% in 1987. By 2015 this was 82% and 13%⁵¹.



FIGURE 7: WAGES AND SOCIAL CONTRIBUTIONS AS PERCENTAGE OF TOTAL COMPENSATION⁵²

The rising DRCs paid to close deficits have clearly contributed to the rise in non-wage costs alongside the increase to National Insurance contributions in 2009. The ONS concludes that the rise in non-wage costs could reflect growing employer payments necessary to tackle pension fund deficits⁵³.

The dividend impact

In 2015, £79bn was paid to shareholders in dividend payments⁵⁴ compared to around £36bn in pension contributions. It has been estimated that FTSE 100 companies paid around five times

⁴⁹ Pension Funds and Index-linked Gilts: a supply/ demand mis-match made in hell, Schroders, June 2016.

⁵⁰ Typically wages, pension contributions and national insurance contributions.

⁵¹ United Kingdom National Accounts, the Bluebook: 2015 edition, ONS, 2015. 52 United Kingdom National Accounts, the Bluebook: 2015 edition, ONS. 2015.

⁵² Onlied Kingdom National Accounts, the Bidebook? 2015 ed 53 An Examination of Falling Real Wages, 2010-2013. ONS.

⁵⁴ Capita UK Dividend Monitor, issue 25, Capita Asset Services, April 2016.

more in dividend payments in that year as they paid in DRCs⁵⁵. TPR has also observed that the median ratio of DRCs to dividends has declined from around 17% to 10%⁵⁶.

It has been suggested, therefore, that many employers could afford to close their deficits more quickly if they were to pay additional contributions to the pension scheme instead of making dividend payments to shareholders.

Such a move may be superficially attractive. However, it may have more damaging long-term consequences for pension funds and their sponsoring employers.

- Pension schemes are significant beneficiaries of dividend payments. In 2015, pension schemes income from dividends constituted 14% of their total income and was as high as 45% in 1997⁵⁷.
- The failure to pay dividends is likely to result in the downgrading of the scheme sponsor by analysts and markets. This will in turn have a negative impact on the strength of the sponsor covenant and their cost of capital, which will in turn have a negative impact on the pension scheme.
- Once a dividend is not paid out to shareholders, it is not available for investment elsewhere in the economy.

The impact on corporate growth

DRCs are impacting employers' ability to invest in their businesses, therefore constraining corporate growth. It has been suggested that deficits have caused corporate sponsors of underfunded schemes to pay out as much as around one quarter in deficit reduction contributions as the amount spent by all private sector firms on fixed capital⁵⁸.

Impact on DC contributions

The increasing costs of funding DB pensions in general, and the need to repair deficits in particular, may also be having a constraining impact on the amount of capital employers can – or are willing to – allocate to defined contribution schemes.

Average contributions to DB pensions today for active member accruals are 21% (5% for members, 16% for employers). Contributions to DC schemes are typically 4% (1.5% scheme member, 2.5% employer)⁵⁹. Viewed at the macro level, in terms of the allocation of business resource expressed as a percentage of GDP, DB pension expenditure by employers amounted to 2% whereas DC contributions was less than 0.5%.

With DC now the norm, and almost all active scheme members now saving in DC, employers are likely to feel a greater desire and obligation to meet the needs of their current employees. Moreover, the constraint on employers to pay higher DC contributions due to the need to meet higher DB contributions, may be seen as a direct transfer from one generation to another, with a consequential impact on intergenerational fairness as many of those currently accruing DC provision look set to retire on inadequate incomes – and certainly incomes far below those retiring with DB benefits today.

While the decisions that employers make between different forms of expenditure are complex and not a simple choice between growth, profits and employee compensation, they are undoubtedly now facing strategic choices about the allocation of capital.

⁵⁵ Accounting for Pensions, LCP, 2016.

⁵⁶ Annual Funding Statement Analysis, TPR, 2016.

⁵⁷ MQ5: Investment by Insurance Companies, Pension Funds and Trusts, ONS, September 2016.

⁵⁸ Who carries the risk? Asset-allocation challenges for defined-benefit pension schemes and their sponsors on the road to buyout, PIC and Fathom Consulting. 2014.

⁵⁹ Occupational Pension Schemes Survey, ONS, September 2016.

PERVERSE OUTCOMES – SUPPORTING SECURITY?

The focus for regulators and employers has been on reducing and repairing the deficits reported in scheme valuations – which can be very volatile. This has been in the belief that to do so, and to repair these deficits, will improve scheme member security.

The current focus on deficits has the potential to divert attention away from the fundamental issue – ie how likely is the scheme to meet its cashflows and what is the probability of it failing to do so. If looked at from this perspective, it raises questions about whether we are focusing our attention on the wrong measures and the efficacy of continuing to use the current ones.



THE IMPACT ON BENEFITS -THE RISK TO SCHEME MEMBERS

- There is a significant risk to members' benefits in all but the most strongly funded schemes when risks are looked at in an integrated way. These risks increase in a 'lower for longer' scenario.
- The PPF helps to mitigate that risk and is doing a good and necessary job in protecting scheme members. But members remain exposed to risk of loss of benefits not covered by PPF compensation.
- Regardless of this, members are not aware of the risks that their benefits are not guaranteed and the risk that they may not be paid in full.

RISK IN PENSIONS

Risk exists in any pension system.

For DC pensions, the risks are that:

- > poor investment returns result in a smaller pension 'pot';
- the scheme member may outlive their pot of capital a potentially bigger risk in a post-freedom and choice environment; and
- insufficient contributions generate an inadequate benefit regardless of investment return.

In each case, the risk sits unambiguously with the scheme member.

In the DB pensions sector substantial expertise, resource and cost is directed at managing the risk that scheme funding could deteriorate leading to increased deficits.

DB funding risks arise in three principal ways:

- Benefit risk the risk that the scheme's benefits increase at a rate or are undervalued such that assets are insufficient to pay benefits when due. This might happen if longevity improves faster than expected or if inflation or new legal requirements to augment benefits increase liabilities more than anticipated.
- ▶ Investment risk the risk that the invested funds will not exactly meet the defined benefits.
- Covenant risk the risk that the sponsoring employer will either not exist or be unable to pay sufficient contributions into the pension scheme to meet a shortfall in invested funds.

These risks may arise individually, but are more likely to arise in combination.

Whilst the duty and cost of correcting for these risks lies principally with the employer, it is ultimately the scheme member who bears the risk in the event of a scheme collapse and/or collapse of the sponsor. However, scheme members' understanding of the risk that benefits may not be paid out in full is low. The risk is not transparent, meaning they cannot plan for it.

WHICH SCHEMES AND WHICH SCHEME MEMBERS ARE AT RISK?

Whilst most DB scheme members currently appear likely to receive their benefits in full, the increasing pressures on schemes and their sponsors mean that the numbers that are at risk of not receiving all of their benefits as they fall due are rising. This creates considerable uncertainty for trustees, sponsors and above all scheme members. A key question for Government, regulators and scheme members therefore is to understand the risks, how they arise, which schemes are most at risk and by how much, and the potential quantum of loss to scheme members.

There are two key scenarios where the risk to members' benefits arises for a scheme in deficit:

- Sponsor default risk- where events outside the scheme's influence cause the sponsoring employer to become insolvent.
- Scheme default risk where the sponsor is no longer able to repair funding deficits and the scheme is wound up (which in turn triggers sponsor insolvency).

The risk continues in schemes which have reached full solvency funding until they actually secure their benefits, for example through buyout.

To understand the risk to members' benefits more fully, the Taskforce commissioned modelling from Gazelle Corporate Finance Limited's 'Mousetrap' Integrated Risk Model to help estimate and better understand the probability and quantum of longer-term DB member benefit losses.

BOX 1: MOUSETRAP EXPLAINED

The Mousetrap Integrated Risk Model (IRM) integrates longer-term modelling of sponsor support for a DB scheme with that particular scheme's longer-term asset and liability modelling. The model allows the evaluation of the impact of extended sponsor default risk on overall benefits risk and the incidence of longer-term underfunding/scheme default risk.

The Mousetrap model is designed for use by individual schemes. To investigate the question of DB benefit losses across the remaining population of DB schemes illustrative case studies were designed using average scheme and sponsor profiles based on TPR's June 2016 Funding Statistics as these provide the only publically available up to date source data for DB sponsor and scheme profiling.

The study uses TPR's Funding Statistics classification of four covenant groups:60

- CG1 Strong around 17% of schemes, with 20% of liabilities
- CG2 Tending to strong around 38% of schemes and 38% of liabilities
- CG3 Tending to weak 22% of schemes with 26% of liabilities; and
- ▶ CG4 Weak 24% of schemes with 16% of liabilities.

This provides a series of average profiles in terms of maturity, discount rates, funding strength and recovery plan length for schemes attached to each covenant group and these profiles can be deployed to form illustrative simplified asset and liability models.

Detailed information about the Mousetrap model and its underlying assumptions are set out in Annex D. The full report can be found on the DB Taskforce website.



The Mousetrap model differs from other models used to assess likely rates of scheme default. For example, PPF modelling suggests that over the next 15 years 12% of schemes would be subject to sponsor insolvency. The Pensions Institute took a more pessimistic approach suggesting that closer to 1,000 schemes "are very unlikely to pay future pensions in full to members and their dependents"⁶¹. Whilst both are helpful to understand aggregate levels of risk in the system, and hence risk to members' benefits, they are of more limited use in understanding the number of scheme members who may find their pension benefits will not be paid in full.

The Mousetrap model like any model has limitations, and with access to more granular data on DB sponsors it would be possible to carry out further analysis. However, it is a useful way to assess and illustrate the potential for benefit loss in the DB scheme universe, and how much will be lost and by whom.

MEMBER EXPOSURE TO BENEFIT LOSSES

The important determinant of a DB scheme member's exposure is how dependent the scheme is on the employer for funding support and for how long. Contribution plans and investment strategy are key influences on this long-term exposure. For example, reducing investment risk may provide greater certainty on asset recovery in the case of default, but will increase the time period of exposure to such default.

As might be expected, the Mousetrap modelling showed that over a 30-year period⁶², schemes with a stronger employer covenant were more likely to reach full solvency funding levels (as measured on a full funding basis – see appendix for full assumptions) than those in the two weakest covenant groups: schemes in the strongest covenant group had a 90% chance of reaching full solvency funding after 30 years, whereas schemes in the weakest solvency group had only a 32% chance of reaching full solvency funding.

This is significant because schemes in the weakest two covenant groups account for 42% of all DB pension scheme liabilities. The impact on scheme members is also significant: members supported by sponsors in the strong covenant group (CG1) are almost three times more likely to achieve a level of funding that will definitely deliver promised benefits than those supported by weak sponsors (CG4).

	% OF SIMULATIONS REACHING SOLVENCY FUNDING
CG1 Strong	90%
CG2 Tending to strong	67%
CG3 Tending to weak	52%
CG4 Weak	32%

FIGURE 8: THE CHANCE OF REACHING SOLVENCY FUNDING

The dominant cause of benefit losses for those members supported by sponsors in the weak covenant group is sponsor default, although for sponsors in the CG2 group (tending to strong) and CG3 (tending to weak) slow funding progression by scheme sponsors is also a factor. For schemes in the lowest sponsor covenant strength bands, the correlation between poor sponsor quality and poor funding quality mean that they are likely to experience sponsor default a long time before they suffer scheme default.

FIGURE 9: THE RISK OF BENEFIT LOSS

	SPONSORS DEFAULT	SCHEME DEFAULT	NO EXPERIENCE OF DEFAULT
CG1 Strong	5%	1%	4%
CG2 Tending to strong	16%	4%	13%
CG3 Tending to weak	37%	3%	8%
CG4 Weak	64%	1%	3%

61 The Greatest Good for the Greatest Number, Harrison & Blake, Pensions Institute, December 2015.

62 The likelihood of schemes in each Covenant Group achieving solvency funding within 30 years is summarised in tables below.

PPF UNDERPIN

It might be argued that any loss to members will be compensated for by the PPF which, over the last ten years, has become an integral part of the pensions landscape. It provides an important safety net for millions of DB members and currently makes compensation payments to over 200,000 people.

The PPF level of compensation is 100% for those who have reached normal retirement age at the point of their employer's insolvency, with benefits in respect of post-1997 service increasing by CPI (subject to a ceiling of 2.5%). For deferred and active members, compensation is set at 90% of the value of the pension at the same point. The cap at age 65 is set at £37,420 a year (resulting in a maximum annual pension of £33,678 once the 90% cap has been applied). Benefits earned since 1997 will be increased in line with CPI each year, again subject to a cap of 2.5%.

The impact of more limited indexation than would have been applied in their scheme⁶³, had it continued, means that - *in aggregate* - PPF benefits are in the order of 80% rather than 90%. Therefore the scheme member may be bearing as much as 20% of the risk to benefits. Figure 10 shows the effect of the impact of the lower levels of indexation applied by the scheme and PPF for an example member.

FIGURE 10: EFFECT OF PPF INDEXATION ON AN EXAMPLE MEMBER WITH £10K ANNUAL PENSION FROM 40 YEARS OF SERVICE (SPLIT 20 YEARS PRE-1997 AND 20 YEARS POST '97 ACCRUAL)



QUANTUM OF LOSS TO MEMBERS

The estimated aggregate loss of benefit on default can be significant for scheme members, who face the possibility of losing between 11%-19% of their benefits on experiencing a default outcome. Once again, as Figure 11 shows, the greatest loss may be expected by scheme members in the weakest schemes. This reflects their weaker funding progression due to lower contributions, a symptom of the constraints on affordability and longer repair plans.

FIGURE 11: ESTIMATED MEMBER BENEFIT LOSSES ON DEFAULT

	ESTIMATED BENEFIT LOSSES ON DEFAULT	PROBABILITY OF DEFAULT	PROBABILITY WEIGHTED BENEFIT LOSSES
CG1 Strong	11%	6%	1%
CG2 Tending to strong	14%	20%	3%
CG3 Tending to weak	16%	40%	7%
CG4 Weak	19%	65%	12%

⁶³ PPF pays 2.5% indexation for pensions in payment on post-'97 increases rather than 5% and nothing for pre-'97 increases. For pensions in deferment PPF pays 2.5% rather than 5% (plus GMP revaluations).



The Mousetrap model can translate the aggregate loss into an individual per member loss over a 30 year period. It clearly illustrates the risk of members not being paid their benefits in full is concentrated in those schemes with CG3 and particularly CG4 sponsors. Action to improve the security of benefits therefore needs to recognise the significance of weak sponsor support in exposing members to the risk of loss of benefits. The analysis also indicates that losses from scheme default are substantially greater than those from sponsor default, tend to be occur later and be borne predominantly by younger members.

'LOWER FOR LONGER'

One issue that has added additional pressures to pension scheme funding over recent years has been the persistence of long term low interest rates, prompted in part by the financial crisis and the Bank of England's monetary policy interventions, including post the EU Referendum. The Mousetrap model was applied to assess the consequences of low interests persisting (a 'lower for longer' scenario) and to examine the likely consequences for DB scheme failure rates, and hence the possibility of scheme members not receiving benefits in full⁶⁴.

The analysis shows that DB schemes in each of the covenant groups have a reduced probability of reaching self-sufficiency – by approximately 6% in each case. Schemes with a 'tending to weak' employer slip below a 50% probability of achieving solvency funding. The reduced probability of achieving self-sufficiency results in increased anticipated benefit loss.

% OF SIMULATIONS REACHING SOLVENCY FUNDING	BASE CASE	LOWER FOR LONGER SCENARIO
CG1 Strong	90%	84%
CG2 Tending to strong	67%	60%
CG3 Tending to weak	52%	46%
CG4 Weak	32%	29%

FIGURE 12: IMPACT OF 'LOWER FOR LONGER' ON THE CHANCE OF REACHING SOLVENCY FUNDING

THE IMPACT OF INVESTMENT DERISKING ON THE PROBABILITY OF MEMBER LOSS

Over the past decade there has been a trend towards de-risking investment strategies (see Economy chapter). On the one hand this has reduced the pressure to generate returns, but instead it places greater emphasis on 'making good' deficits through contributions, with a consequentially greater reliance on the sponsor's solvency – effectively a transfer of risk to the sponsor.

The Mousetrap model analysed the impact on risk to members' benefits of a de-risked investment strategy and one that pursued a more risky strategy (ie one that sought to invest more aggressively in return-seeking assets). The analysis shows that, compared to the base case, an investment strategy which sought to reduce risk by 15% in fact increased the probability of default (by as much as 12-13% in the case of the weakest two covenant groups), but that the estimated benefit losses on default reduced or remained the same, albeit marginally.

Conversely, an investment strategy which sought to increase investment in return-seeking assets (re-risking) by 15% saw the probability of default reduce (by as much as 9% in the case of the 'tending to weak' covenant group), but saw the losses experienced by members in the case of default increase (again, marginally compared to the base case).

⁶⁴ For this modelling a yield curve profile with both lower for longer rates and a flatter profile which only reverts to a maximum 2.0% risk free rate combined with a further 0.5% deterioration of longer-term outperformance rates on risk-bearing assets.

As the table below illustrates, in both cases risk is transferred (to the sponsor in the case of a derisking strategy and also to the trustee in the case of a re-risking strategy). Investment de-risking therefore appears to have the effect of moving risk around rather than reducing it.

	CG1 STRONG	CG2 TENDING TO STRONG	CG3 TENDING TO WEAK	CG4 WEAK	
WITHIN 30 YEARS	Base case investment policy				
Estimated benefit losses on default	11%	14%	16%	19%	
Probability of default	6%	20%	40%	65%	
Probability weighted benefit losses	0.7%	3%	7%	12%	
WITHIN 30 YEARS	De-risking reduction of -15% applied to risk-bearing benefits				
Estimated benefit losses on default	7%	13%	16%	18%	
Probability of default	7%	29%	52%	78%	
Probability weighted benefit losses	0.5%	4%	8%	14%	
WITHIN 30 YEARS	Re-risking of -15% applied to risk-bearing benefits				
Estimated benefit losses on default	14%	15%	18%	20%	
Probability of default	6%	15%	31%	54%	
Probability weighted benefit losses	0.8%	2%	6%	11%	

FIGURE 13: THE IMPAC	OF DIFFERENT	INVESTMENT S	TRATEGIES OF	N BENEFIT LOSS
			INAL COLO OI	

MEMBER AWARENESS

The Mousetrap modelling has shown that there is a high risk that a significant number of workers saving into DB may not receive their benefits in full due to a scheme default, a sponsor default or a combination of both.

The DB Taskforce therefore commissioned qualitative and quantitative research⁶⁵ to understand saver attitudes to, and understanding of, DB pensions as well as their understanding of risk and willingness to 'trade' the level of benefit promised for a greater probability that the benefit will be paid.

There was a strongly held view that DB pension schemes are secure, with 71% of respondents agreeing with the statement "you are guaranteed to get the income you have been promised from a defined benefit pension". Of those with a DB pension, less than half (48%) had previously considered whether a deficit could affect their scheme. Half thought they would see a reduction in their pension if their employer became insolvent. Younger DB members were more aware of the risk of a shortfall in funding, but few thought it was something that could happen in their own scheme.

The focus groups discussed the risks and the impacts these might have on different generations of DB members. The majority felt that pensioners were most at risk as they had contributed for the longest and were more likely to be reliant on the income.

** I WOULD SAY THAT THE PENSIONERS WOULD BE HIT NOW, AS THEY'RE THE ONES WHOSE INCOME SUDDENLY GOES. WHEREAS I WOULD BE IN A POSITION TO GO, WELL IT'S NOT A VERY GOOD PICTURE, BUT I'VE GOT SOME TIME TO DO SOMETHING ABOUT IT, I'VE GOT TIME TO RE-ADJUST. **

Current / Deferred member, 45 and over

Even once the focus groups had discussed the risks and potential impact there was a reluctance to make changes to their pension to manage these risks and their impacts. The level of reluctance

⁶⁵ The research was conducted by Ignition House between August and September 2016. It comprises qualitative research (10 two hour focus groups and 10 one hour depth interviews with DB scheme members across GB plus 25 15 minute post-fieldwork depth interviews); and quantitative research comprising 15 minute on-line interviews with occupational pension holders.



differed between focus groups with some willing to make some compromises to benefit the next generation – especially when they linked the issue to their own children or grandchildren. This reluctance was mirrored in the survey results where the majority of survey respondents (57%) did not believe members should receive a smaller DB pension even if the scheme were in deficit.

A significant majority (62%), however, would prefer a lower level of income in retirement if it could be guaranteed, suggesting an appetite for certainty of a lower income over risk of a higher income. 55% of those with DB pensions thought it should continue to be offered, but at a more affordable level. Increasing pensions by a lower level of inflation was seen to be the most palatable benefit adjustment if one had to be made. One of the biggest barriers to making any change was a concern that further changes would follow.

** I'M VERY CAUTIOUS ABOUT IT BECAUSE THEY SAY ONE THING IS BLACK AND WHITE AND THEN 20 YEARS LATER IT'S DIFFERENT AGAIN. **

Current / Deferred member, under 45

Whilst DB scheme members were unaware of the potential risks to benefits, it was clear that they valued their pension – a good workplace pension was ranked the second most valued employee benefit coming second after salary. The importance attached to the DB scheme was also reflected in the qualitative interviews where DB members and beneficiaries recognised that they were 'the lucky ones'.

** I WAS IN A LOCAL GOVERNMENT PENSION SCHEME. I WAS AWARE IT WAS ONE OF THE BETTER PENSION SCHEMES AND I WAS LUCKY. **

Current/ deferred member, 45+

** I FEEL QUITE LUCKY TO HAVE A FINAL SALARY SCHEME, BECAUSE YOU KEEP HEARING IN THE PRESS THAT THEY'RE CLOSING...IT JUST MAKES YOU FEEL HAPPY YOU'VE GOT ONE. **

Pensioner member

This positive view was mirrored by the high expectations survey participants had for the income it would deliver, where the expectation was that it should maintain their in-work standard of living.

EFFICIENCY AND VALUE FOR MONEY

- > There are a large number of DB schemes in the UK.
- Smaller schemes are generally characterised by poorer governance standards. This matters because good governance is central to good quality and efficient pension provision and the reduction of benefit risk.
- Smaller schemes cannot leverage economies of scale and attract the quality of skills needed to operate and invest efficiently.
- Additionally the highly intermediated nature of the UK pensions system results in value leakage.

THE PROLIFERATION OF SMALL SCALE SCHEMES

The UK pensions system is characterised by a large number of schemes. The PPF reports 5,945 schemes in its universe. The majority of these schemes are small – two-thirds have fewer than 1,000 members. The average scheme has just over 1,800 members and £200m of assets.

At present nearly all of these schemes fund their own running costs, and operate their governance, administration and investment management systems on an individual basis. This cannot be the most effective and efficient way to mitigate risk, optimise investment returns and attain the quality of governance needed to achieve the best outcomes for members and sponsors.

The UK pensions system is in stark contrast to that of other developed pensions economies, many of which started from a base of having fewer individual schemes but have sought to achieve better standards of governance, and capitalise on economies of scale, by encouraging (and in some cases mandating) the consolidation of smaller schemes into fewer, larger entities.

- ▶ In the Netherlands, (where pension fund assets are similar in scale to those in the UK at £1.3bn)⁶⁶ the number of pension funds has fallen from over 800 in 2005 to 308 in 2016. Smaller schemes, with limited capacity to amend funding levels and particular demographic profiles have been directed by the Dutch Regulator to consolidate, while many individual corporate schemes have joined consolidated industry-wide entities. Employers' representatives have welcomed the relief on boards and the reduction in need for pensions expertise at individual companies, while the Dutch trade union federation has promoted further consolidation as a way "to reduce costs and improve results for participants"⁶⁷.
- In Australia, the 2010 Cooper Review⁶⁸ recommended a requirement for trustees to assess on an annual basis whether or not their scheme was of the optimum size to achieve best possible outcome for members⁶⁹. The number of schemes (with four or more members) has fallen from 333 in 2012 to 242 in 2015. Whilst the context in Australia was DC provision, the rationale was the same as for DB systems seeking scale: a desire to generate better value for money for scheme members, scale economies, and stronger governance.

On key measures of pensions efficiency – governance, adequacy, sustainability and integrity– Denmark, Australia and the Netherlands are ranked first, second and third respectively in the 2015

⁶⁶ Global Pensions Assets Survey, Willis Towers Watson, 2016.

⁶⁷ Best hands on deck: The consolidation of Dutch pension funds, Investments and Pensions Europe, March 2015.

⁶⁸ Final Report, Review of the Governance, Efficiency, Structure and Operation of Australia's Superannuation System, 2010.

Melbourne Mercer Global Pension Index, partly in recognition of the value for money their large scale pension provision provides7º.

The Irish Pensions Authority has recently stated its intention to reduce the number of individual pension schemes (which currently stand at 160,000). The Pensions Authority has assessed that:

- small schemes have much less bargaining power with service providers than larger schemes;
- larger schemes have more scope for reducing costs through economies of scale:
- there will be a governance gain as there is unlikely to be a significant level of pension knowledge amongst the 180,000 trustees currently listed in the Authority's records; and
- it is impractical for the Authority to exercise effective proactive and prospective supervision over this number of schemes⁷¹.

GOOD GOVERNANCE MATTERS

Good governance matters. It is the foundation of success for successful companies, and it is the foundation of success for successful pension schemes. Whilst it is generally recognised that the quality of trusteeship and pension fund governance has improved considerably over the last decade⁷² it is also recognised that many schemes are still poorly governed.

Well governed schemes will be populated by highly-skilled individuals who can take balanced, informed and well-researched decisions on behalf of beneficiaries, measure performance against the scheme's strategic objectives, and who have access to the resources and the time commitment to diligently hold external advisers to account.

Whilst there is not a direct correlation between size and quality of governance (some small schemes are very well governed and some larger schemes poorly governed), evidence from TPR suggests that features of good governance are generally much less likely to be present in smaller schemes. For example, TPR found:

- ▶ 89% of large schemes held trustee meetings at least once every quarter, but the figure fell to 48% for medium-sized schemes.
- Interviewees reported a similar trend in terms of days a year spent on trustee duty: large schemes spent 16 days a year on average compared to 12 for medium sized schemes and nine for small schemes.
- 69% of large schemes felt their non-professional trustees possessed a level of knowledge and understanding that met the TPR Trustee Knowledge and Understanding (TKU) Code, and only 5% were unaware of the TKU Code. This compared to 38% and 8% respectively for smaller schemes73.

The problem of a lack of governance expertise is compounded by difficulties in accessing trustee talent in the first place. Respondents to the DB Taskforce Call for Evidence cited difficulties in finding suitably expert trustees (particularly when many trustees were expected to work for free). These problems are likely to intensify as schemes run off and the pool of expertise shrinks over time.

The lack of expert governance resource means that smaller schemes are likely to be missing out on the governance 'bonus' available to larger schemes. Keith Ambachtsheer has estimated that the impact of good governance can be up to 1% of the fund's value a year⁷⁴. The presence of a governance bonus was confirmed in a more recent study by Urwin and Clark, who sought to identify a selection of institutional investors with the characteristics associated with good governance. They found that almost all of the funds meeting their governance best practice criteria had a performance margin of 2% a year or more over their benchmarks75.

⁷⁰ Melbourne Mercer Global Pensions Index, Australian Centre for Financial Studies and Mercer, 2015.

Reform and Simplification of Funded Private Pensions, Consultation Document issued by the Irish Pensions Authority, July 2016.

⁷² Trustee Landscape Qualitative Research, A report of the 2015 Trustee Landscape, TPR, 2015. 73 It should be noted that these figures include DB, DC and hybrid schemes. TPR's research does not break down each type of scheme by size.

⁷⁴ Pension Revolution: A Solution to the Pensions Crisis, Keith Ambachtsheer, 2007.

⁷⁵ Best-practice pension fund governance Gordon Clark and Roger Urwin, in Journal of Asset Management, Vol 9 issue 1, 2008.

Over time, this governance 'bonus' will make a significant difference to the efficient operation of the fund and to the ability to meet commitments to scheme members.

IMPACT ON BARGAINING POWER

The lack of governance resource and expertise has a direct impact on the ability of trustees to exercise bargaining power over their advisers. It is also likely to constrain their ability to access particular asset classes, or to do so on favourable terms.

Bikker and De Dreu⁷⁶; the Ontario Government's Report of the Expert Commission on Pensions⁷⁷ and Dyck and Pomorski⁷⁸ all assert that weaker bargaining power is one of the main reasons smaller schemes fail to achieve the same value as larger counterparts. They emphasise a lack of expertise, resource and access to certain asset classes, all of which would have an impact on scheme bargaining power.

Larger schemes, by comparison are better able to leverage scale through their stronger bargaining power. Not only does this mean they will be better able to negotiate better terms because of the greater weight of assets under management, their access to internal resource at the scheme executive level (alongside stronger governance) will ensure they are better positioned to operate more efficiently.

The Dutch National Bank found that a pension fund that has 10 times more assets under management, has on average 7.67 basis points lower annual investment costs as a result of reduced management costs⁷⁹. A number of earlier studies reached similar conclusions on the benefits to large schemes of reduced management costs^{80 81 82}.

Particularly important advantages available to larger funds include the capacity to bring investment management in-house, and their superior governance expertise. State Street Analytics found an average fund cost of 10 basis points for schemes that manage their investments internally versus 33 for those that use external fund managers⁸³. Dyck and Pomorski⁸⁴ found that internal fund management costs are up to three times lower than external management contributing between one third and one half of the potential savings of 43 to 55 basis points that larger schemes stand to gain over smaller schemes.

** SIZE IS A CRITICAL FACTOR. LARGE SCHEMES HAVE THE GOVERNANCE BUDGET, THE ACCESS TO INVESTMENT MEDIA AND PURCHASING POWER THAT SMALL SCHEMES LACK **

Head of Trustee Services, large multi-employer scheme, Call for Evidence.

** LACK OF SCALE WHICH PREVENTS HIRING FULL TIME DEDICATED RESOURCES TO ALLOW A SCHEME TO PLAY A MORE ACTIVE ROLE IN THE INVESTMENT PROCESS [PREVENTS EFFICIENT INVESTMENT] **

Chief Investment Officer, large DB scheme, Call for Evidence.

It is this desire to maximise scale efficiencies that is driving the pooling of Local Government Pension Fund assets⁸⁵, which will reduce from 89 separate funds to 8 pools, each with around £25bn of assets under management. The increased efficiencies are already evident.

83 Do Larger Funds Perform Better? State Street Investment Analytics, 2013.

85 England and Wales only at the time of publication.

⁷⁶ Pension Fund Efficiency: The impact of scale, governance and plan design Jacob Bikker and Jan de Dreu, 2006.

⁷⁷ A Fine Balance, Report of the Expert Commission on Pensions, Ontario Pensions, 2008.

 $^{78 \ \}textit{Is Bigger Better? Size and Performance in Pension Plan Management, Alexander Dyck and Lukasz Pomorski, 2011.$

⁷⁹ Scale economies in pension funds, DNB Working Paper 474, 2015.

⁸⁰ Economies of Scale & Pension Fund Plans: Evidence from South Africa Albert Touna Mama, Neryvia Pillay and Johannes W. Fedderke, 2011. 81 Why We Need a Pension's Revolution, Keith Ambachtsheer, 2007.

New Evidence on Pension Plan Design and Administrative Expenses: the Australian Experience, Hazel Bateman and Olivia Mitchell, 2004.

⁸⁴ Is bigger better? Size and Performance in Pension Plan Management, Alexander Dyck and Lukasz Pomorski, 2011.





There has already been considerable interest in the benefits of scale in the UK, in the Local Governments Pensions Scheme. In 2015 the UK Chancellor announced plans to pool the investments of 89 local government pensions schemes into seven regional funds capable of making more substantial infrastructure investment⁸⁶

Exploratory work from the LGPS Central Group, comprising the local authority pension funds for Cheshire, Derbyshire, Leicestershire, Nottinghamshire, Shropshire, Staffordshire, West Midlands Integrated Transport Authority, West Midlands Pension Fund and Worcestershire suggests that the pooling arrangements will save the participating schemes a total of £200 million over the next 15 years.

The cost savings are forecast to come from a number of areas including the consolidation of segregated mandates, reduced use of pooled vehicles and fund of funds, a switch from indirect to direct property, and more competitive fees from alternatives achieved through increased scale.

THE VALUE CHAIN - MISALIGNED INTERMEDIATION?

The need for greater skills to exercise stronger oversight of, and accountability over, advisers is more important than ever given the highly intermediated nature of the 'value chain'.

The list of intermediaries involved in pensions has lengthened considerably over the last 30 years, due to increased complexity in pension scheme legislation, the growth and diversity of the assets under management held by schemes as they have matured and changes in the investing environment. In addition to the regulatory bodies, including accounting standard setters, figure 14 shows some of those involved:



FIGURE 14: PENSION SCHEME INTERMEDIARIES

This has led to concerns about whether the growth in the role of intermediaries has added significant value, or simply resulted in an increase in frictional costs – in other words, whether intermediation in the value chain has just created 'value leakage' at the expense of beneficiaries and sponsors.

The increasing distance between investments and their underlying beneficiaries – as a result of the lengthening value chain – creates a potential risk that the beneficiary's interest will be a lesser consideration in the act of investment. This is a greater risk if scheme governance is not adequate to ensure proper oversight of intermediaries.

Advisers to schemes are ultimately interested in supporting their own businesses objectives. This is best done when they align their interests closely with those of their clients. However, where there is lack of alignment, and where schemes have insufficient bargaining power or expertise to force alignment, intermediaries will be tempted to exploit an opportunity to sell unnecessary services or to seek investment management fee structures that are better aligned with their business model than the long-term interests of pension funds.

For example, annual (or even tri-annual) bonuses are based on a much shorter timeframe than the decade-long periods over which pension funds will be expected to accumulate value. This has important implications, because investment strategies focused on a short-term time period may generate higher costs (associated with higher portfolio turnover, for example) and lower returns (for example by failing to exploit fully the illiquidity advantages of pension funds in accessing higher quality assets available in less efficient markets).

The intermediated nature of the DB sector can also lead to dysfunctionality. The Bank of England⁸⁷ evidenced high levels of herding in DB sector investment, leading to capital market distortion, in particular index-linked yield suppression, which it attributed in large part to the intermediated nature of the investment value chain and the way the sector uses investment consultants and asset managers.

Only 40% of investment industry stakeholders felt that the investment industry was serving the interest of its ultimate beneficiaries rather than the agents within it⁸⁸. The Financial Conduct Authority (FCA) deemed the possibility of flawed competition and poor value in the asset manager market to be sufficiently strong to launch a Market Study in late 2015. In launching the Study (due to report in 2017) the FCA cited concerns regarding the extent to which asset managers were "not incentivised to search value for money" when commissioning outsourced providers of, for example, research or transfer services, because they are able to pass on the costs to investors (such as pension funds) who are unable to scrutinise the fees charged to them⁸⁹.

The Investment Association⁹⁰ also noted the risk of conflicts of interest affecting investment consultants, including the fact that they can charge for conducting investment performance reviews; setting or reviewing mandates for asset managers; or managing tendering processes. Again, this creates a potential incentive to encourage an overly short-term focus, with asset managers being changed and investment performance measured over too short a time period.

Investment management fees and costs in particular place a significant cost burden on pension funds⁹¹. FIGURE 15: PENSION COSTS PER ANNUM (% OF TOTAL ASSETS)



Procyclicality and Structural Trends in Investment Allocation by Insurance Companies and Pension Funds, Bank of England, 2014.
 Our Industry Has a Problem: the investment industry has been built by intermediaries for intermediaries, Thinking Ahead Institute, 2014
 Wholesale Sector Competition Review – call for inputs, FCA, 2014.

90 Supporting UK Productivity with Long-term Investment, The Investment Association, 2016

91 Breaking the Chain, presentation by Robert Brown to NAPF (now PLSA) Investment Conference, 2014.

Therefore, any reduction in reliance on intermediaries could potentially yield savings and quality investment. This is more likely to be achieved by larger schemes given their greater access to (and governance budget for) internal expertise and support.

Limited time commitment and low-levels of training or lack of required levels of understanding indirectly suggest that many schemes are not well set-up to manage the process of intermediation. TPR also found direct evidence of schemes with difficulties managing their external advisers. For example, substantial minorities of respondents suggested that their boards never disagree with a particular adviser, suggesting that their capacity to challenge and critique the quality of service they receive may be limited⁹².

While most respondents were either confident or very confident in the service provided by their advisers, the findings on affordability raised further concerns. A large minority of schemes suggested that costs considerations force them to be selective in terms of the advice that they commission. This was particularly the case for smaller schemes, again suggesting that either their limited resources or bargaining power are hindering their access to the necessary advice.

The PLSA's Annual Survey⁹³ highlighted the potential costs of this variation in capacity to hold providers to account, finding that the total cost per member of advisory services was over 70 per cent higher at the 75th per centile of survey respondents than at the 25th.

	ADMINISTRATION	GOVERNANCE	FUND MANAGEMENT	CONSULTANT/ LAWYER ETC FEES	LEVIES	OTHER	TOTAL
Small (1-999)	124	24	300	336	101	24	796
Medium (1,000-4,999)	75	11	224	93	55	7	354
Large (5,000-9,999)	46	2	109	70	59	5	311
Extra large (10,000+)	48	4	189	37	31	6	301

FIGURE 16: PENSION FUNDS' ADVISER COSTS (DB SCHEMES)

These differences may well result from differing priorities leading to different strategies resulting in, for example, differing investment costs. Equally, there is a strong possibility that they result from differing capacities to achieve best value from external advisers.

WHY INTERMEDIATION MATTERS

The fragmented nature of UK pension provision, resulting in sub-optimal governance oversight in some cases, and a weaker bargaining position for many schemes would point to a system that is not operating efficiently. The cost of these inefficiencies will be borne directly by scheme sponsors, who may be required to make additional contributions compared to a system operating more efficiently, and ultimately, borne by scheme members, the security of whose benefits may be put at risk by poorly operating and inefficient schemes.

REGULATION AND LEGISLATION

- Scheme members need to be properly protected. That is what the regulatory framework should do. But it must also support and encourage sponsors and trustees to operate efficiently and reduce benefit risk.
- We are regulating from the wrong end of the telescope. We have lots of sub-scale schemes (with poor governance) which means regulators and government must regulate to the lowest common denominator.
- > This is inflexible and costly. The system we have is not working perfectly.
- The current system only allows binary outcomes of complete 'success' or complete 'failure'.
- Greater benefit and regulatory flexibility may help to achieve earlier scheme resolution with better, ultimate outcomes for scheme members.

THE REGULATORY FRAMEWORK - FIT FOR PURPOSE?

It is beyond question that pension scheme members must be well protected by a strong regulatory framework. That regulatory framework must, however, also support and encourage sponsors and trustees to provide and promote good pension provision, and build the confidence of sponsors.

The tone and the nature of successive governments to pension protection in the UK, while protecting scheme members well on the whole, is, however, largely driven by the imperfections in the current DB system. As described in the DB Today chapter, the UK has a highly fragmented pensions system: almost two-thirds of schemes have fewer than 1,000 members, and many do not have the governance capacity to operate defined benefit provision in today's challenging environment, which rightly requires high standards of governance and a strong focus on member protection.

As a result, there has been a necessary tendency for government and regulators to regulate to the lowest common denominator. The resulting regulatory system is highly prescriptive, with DWP, HMT, and HMRC regulations 'micro-managing' the actions of trustees, scheme managers and their advisers, often in a way that reflects sub-standard governance arrangements (as described in the Efficiency chapter). As a result there is little room for the exercise of trustee, sponsor or adviser discretion. This might be described, therefore, as a "bottom up" approach to regulation.

It has also resulted in a significant volume of regulation – 850 new pieces of regulation and legislation affecting DB schemes since 1995 alone. This has added significantly to the costs and complexity of operating schemes.

There was a strong view from respondents to the Call for Evidence and interviewees that the increasing cost of pension regulation has been a factor in sponsors' decisions to close schemes.



FIGURE 17: REGULATION AND DB DECLINE - CAUSE AND EFFECT?94



** THE SINGLE LARGEST CONTRIBUTION TO THE DECLINE (AND ULTIMATE DEMISE) OF DB PROVISION IS THE REGULATORY OBLIGATIONS WHICH HAVE BEEN IMPOSED ON DB SCHEMES SINCE 1997 **

Deputy Pensions Manager, large multi-employer scheme, Call for Evidence.

THE REGULATORY ARCHITECTURE - TPR

The regulatory system that governs DB pension schemes is designed to ensure that member benefits are paid in full while providing a safety net through the PPF in circumstances where a scheme or its sponsoring employer becomes insolvent and the scheme is underfunded.

These tensions are reflected in the objectives of TPR:

BOX 2: THE PENSIONS REGULATOR'S STATUTORY OBJECTIVES

- to protect the benefits of members of occupational pension schemes
- to protect the benefits of members of personal pension schemes (where there is a direct payment arrangement)
- to promote, and to improve understanding of the good administration of work-based pension schemes
- to reduce the risk of situations arising which may lead to compensation being payable from the Pension Protection Fund (PPF)
- to maximise employer compliance with employer duties and the employment safeguards introduced by the Pensions Act 2008
- to minimise any adverse impact on the sustainable growth of an employer (in relation to the exercise of TPR's functions under Part 3 of the Pensions Act 2004 only).

94 Fit for the future, NAPF's visions for pensions, updated from 2009 with data from the Purple Book – DB Pensions Universe Risk Profile, The Pensions Regulator and Pension Protection Fund, December 2015.

The regulatory framework provides good protection for member benefits and to regulate a maturing DB system. However, its success in practice depends on a regulator which has sufficient powers, uses those powers appropriately and is resourced in proportion to the scale and complexity of the system it is overseeing. It also relies on a robust and sustainable PPF.

AVOIDING BINARY OUTCOMES

The current legislative framework leads to 'binary outcomes' for schemes, sponsors and scheme members.

From a DB scheme perspective, the binary nature of regulation means that the scheme can either be:

- supported by a solvent employer and funded (or funding) to provide full benefits; or
- unsupported by a solvent employer, and transferred to the PPF with members receiving 90% (if below pensionable age) or 100% (if above pensionable age) of their benefits (see the Impact on Benefits chapter for detail).

This PPF underpin provides an extremely valuable safety net for members of schemes following an employer insolvency and, in already providing protection to over 200,000 members, is an important part of the UK pensions system. Nonetheless, this binary structure can foster a 'regulatory misalignment' and a lack of flexibility for solvent schemes. Schemes have typically only sought to examine alternative means to structure their benefits when insolvency is inevitable. The result is a situation in which TPR and scheme trustees are either incentivised to keep poorly funded schemes 'limping on' for as long as possible in the hope of a recovery; or that there is failure to act for fear of crystalising a problem that may go away, but may also get considerably worse.

This approach unnecessarily narrows the options available to schemes, their members and their sponsors, many of which could provide better long-term outcomes than the status quo. It also arguably prejudices the interests of the PPF and the levy payers.

BENEFIT FLEXIBILITY

Notwithstanding the structural constraints that drive a highly prescriptive approach to regulation, the UK has, compared to its OECD counterparts, chosen to adopt a regulatory approach to benefit design that is inflexible and rigid. Therefore what started for many employers as a benefit offered on a "best endeavours" basis, has now become a hard-wired promise.

** THE INTRODUCTION OF REQUIRED INFLATION PROTECTION FROM 6 APRIL 1997 REMOVED A KEY LEVER OF CONTROL IN PENSION SCHEME FUNDING... **

Scheme Actuary, Call for Evidence

It has also added significantly to the cost of providing pensions. The introduction of statutory revaluation and indexation alone has increased scheme liabilities for a typical DB scheme by around 25-30%⁹⁵.

As a consequence, sponsors in the UK do not have open to them the 'pressure valves' available to sponsors of DB schemes in other developed economies.

Greater regulatory and benefit flexibility – such as that available to the PPF itself, which unlike pension funds does have the flexibility to reduce compensation in the extreme – may help avoid or address problems and could mean that funding issues could be addressed before failure (of the scheme or sponsor) became inevitable.

FINDINGS AND NEXT STEPS

IT IS CLEAR THAT DB SCHEMES ARE UNDER SEVERE PRESSURE FROM GROWING DEFICITS, STRUCTURAL WEAKNESSES AND UNSUSTAINABLE COSTS AND RISKS.

Together, these are placing strain on scheme sponsors and contributing to economic weakness. Without change the only likely outcomes are that members will suffer and/or companies (and their employees) will suffer. Action is therefore needed by government, regulators and industry itself to mitigate this.

The Interim Report has identified a number of areas where policy interventions could focus. A number of recurring themes have emerged, which would point to the areas for immediate focus to address the challenges faced by DB schemes today:

- Our current system is too fragmented. The large number of schemes, very many of which are not operating at a scale to be efficient, creates costs that are ultimately borne by sponsors and scheme members. The proliferation of small schemes also sets the tone for the regulatory framework, which is complex and costly. Work should be undertaken to investigate the potential for scheme consolidation which could help secure more economically viable schemes able to deliver better value to scheme members and their sponsors.
- Our current regulatory approach to scheme resolution is inflexible. It drives binary outcomes of success or failure leaving little room for any flexibility or innovation that could help ease pressures on sponsors. Work should be undertaken to investigate how changes to the system could deliver better solutions to scheme resolution and remove regulation which adds cost but has no tangible benefit.
- Our current approach to benefit design and benefit change is rigid. Inflexible benefit rules mean that there are few pressure valves available that would ensure scheme members continued to receive salary-related benefits, but in a way that ensured risks and costs were better shared between scheme members, sponsors and across generations. Work should be undertaken to investigate how a more flexible approach to benefit design/change could be implemented to help sustain schemes.
- Our current approach to DB scheme risk bearing is sub-optimal. This leads to both inefficient capital allocation by sponsors and at an aggregate level inefficient investment strategies by schemes into the economy. There is a fragmented value chain within the pensions system (with inherent agency and governance issues) and an insufficient focus on the primary risk to member benefits. Work should be undertaken to build a greater focus on risk to member benefits.

In its next phase of work, the DB Taskforce will explore these themes with a view to developing recommendations for action and views on how we might achieve the policy reforms required to help ensure the sustainability of DB schemes.

These recommendations and policy solutions will be included in the DB Taskforce's final report which will be published in March 2017.

In developing its views and recommendations the DB Taskforce intends to work with individuals and representatives from across the pensions and investment sectors. We will actively seek their views through formal consultation exercises, focus groups and 'town hall' events to develop policy solutions to present to government which have widespread support and around which consensus can be built.

Ahead of the next phase of work commencing we are keen to hear your views on our analysis and key findings. Please contact us at **DBTaskforce@plsa.co.uk**.

ANNEX A – TASKFORCE MEMBERS

ASHOK GUPTA (CHAIR)

Ashok is a nonexecutive director of New Ireland Assurance, a J.P. Morgan European Smaller Companies Trust, the Ethical



Journalism Network, and is a member of the FRC Codes and Standards Committee and Actuarial Council. He also chairs eValue Investment Solutions.

He was recently joint deputy chair of a Bank of England Working Group on Procyclicality. He was formerly Chair of AA Insurance Services, Chair of Skandia UK, a Founder Director of the Phoenix Group, a NED of the Pensions Regulator and NED of J Rothschild Assurance plc (now St James Place Capital).

His executive career has included Group Strategy Director at CGU (now Aviva), FD & Actuary of Scottish Amicable and a Principal of Towers Perrin.

DUNCAN BUCHANAN

Duncan is a partner in the London Pensions group of Hogan Lovells International LLP. Duncan advises both employers and trustees on the operation of



work based pension schemes. He has advised schemes entering and exiting the PPF and also on restructuring benefits. Duncan is the immediate past President of the Society of Pension Professionals and is a member of the Association of Pension Lawyers.

FRANK JOHNSON

Frank joined RPMI Railpen Investments in 2004 as Finance Director and became Managing Director, Investments in 2009, supporting the Trustee



of the multi-employer rail industry pension schemes. He oversaw the investment business streams of RPMI and Railpen Investments, with assets under management of some $\pounds 20$ billion, until his retirement from RPMI in 2015.

Frank is an independent non-executive director at First State Investments, UK and at GO Investment Partners. He is also a non-executive director of the Pensions and Lifetime Savings Association and Chairman of the Association's Defined Benefit Council. He also sits on the board of the Railway Benefit Fund, a registered charity.

Frank is a chartered accountant and holds a Commerce degree. Before joining RPMI, Frank held a number of finance director posts in the transport sector.

PAUL JOHNSON

Paul is a senior associate at Frontier Economics and a Research Fellow at the Institute for Fiscal Studies. Paul has worked in the economics of public policy for



20 years including stints as a director at HM Treasury, Chief Economist at the Department for Education and Skills and Deputy Director at the IFS. Paul has also been deputy head of the Government Economic Service and a council member of the ESRC.

Paul has researched and published widely on pensions. He was recently asked to lead a review of auto-enrolment by the new government, and was a member of the advisory Pension Provision Group set up by the last government. He is a member of the council of the PPI.

JACKIE PEEL

Jackie is UK & Ireland Benefits Director at Mars, a multinational food company. Her principal responsibilities are for the defined benefit



(final salary and cash balance) and defined contribution pensions arrangements. She is also a member of the Mars Global Benefits Leadership Team which steers the company's strategic direction for benefits. Jackie has also held in house-pension roles at Barclays Bank and Pensions Director at VT Group plc where she was a Trustee of the Shipbuilding Industries Pension Scheme.

She is a non-executive director of the PLSA and vice-chair of the Association's Defined Benefit Council.

Before moving in-house, Jackie spent 17 years with Aon Hewitt in various roles specialising in Executive benefits and Global benefits.

STEPHEN SOPER

Stephen has recently joined PwC in the role of Senior Pensions Adviser. He previously held the positions of Interim Chief Executive and Executive Director



for Defined Benefit (DB) Regulation on the board of the Pensions Regulator.

A Chartered Banker, Stephen began his career at RBS in 1986 within the international banking division and subsequently worked in executive positions at the Allied Dunbar Group, Zurich Financial Services, Eagle Star and Aon.

PAUL TRICKETT

Paul is a non-executive director at Aviva Life UK, Thomas Miller Holdings and Insight Investment. He is chair of Railpen Investments and the Aberforth



Smaller Companies investment trust. Previously Paul has held roles as Head of the EMEA Global Portfolio Solutions Group at GSAM, Head of EMEA Investment Consulting at Towers Watson and CEO of the British Coal Pension schemes.

KEVIN WESBROOM

Kevin is an experienced pension consultant who has been advising pension clients for nearly 35 years. He is a qualified actuary and currently the UK lead



for Global Risk Services, a fusion of actuarial and investment skills designed to help clients make sense of rapidly changing investment markets and new developments such as buy out, longevity and risk driven solutions.

He is practising what he has been preaching about phased retirement by working four days a week. If his views about the shape of future pensions are right, then his final phasing into full time retirement, and the end of private sector DB pension provision, could come together in 10 years time!

LESLEY WILLIAMS

Lesley is Group Pensions Director at Whitbread, with responsibility for corporate pensions strategy and to the Trustee Company for the operation of



the Pension Fund and its investments. The Whitbread pension fund has a closed DB and open DC section. Lesley has worked in the pensions industry for almost 30 years, with previous positions in Gateway Foodmarkets, Abbey National, the Pearl Group and Henderson Global Investors. She is a Fellow of the PMI and has an MBA. She has been a Council member of the Pensions and Lifetime Savings Association since 2009, and became chair of the Association in October 2015.

ANNEX B – TERMS OF REFERENCE

TO UNDERTAKE A REVIEW OF THE CHALLENGES CURRENTLY FACING FUNDED DEFINED BENEFIT (DB) PENSION SCHEMES, AND MAKE RECOMMENDATIONS TO GOVERNMENT WHICH WILL (A) HELP ENSURE THE SUSTAINABILITY OF OPEN DB SCHEMES AND (B) HELP CLOSED DB SCHEMES RUN OFF MORE EFFICIENTLY AND ULTIMATELY SECURE MEMBER BENEFITS.

In reaching its recommendations the DB Taskforce will:

- examine the challenges facing funded DB schemes and the potential impact of these challenges on members' benefits, the health of sponsoring employers, workplace pensions provision and the wider economy;
- assess a broad set of solutions to the many and varied challenges facing DB schemes and, in particular DB schemes' own assessment of the feasibility, impact and risks associated with these various solutions; and
- consider the balance between scheme members, employers and other employees.

The Taskforce will seek evidence from DB schemes and their sponsoring employers as well as government, regulators, scheme advisers and a wide range of industry stakeholders in order to fully assess the impact of any proposals and build a consensus around solutions to support DB pensions.

The Taskforce will ultimately issue a report setting out the Taskforce's view of the DB landscape and set out recommendations which can be used by government, regulators, employers and the industry to help ensure a sustainable DB pensions system.

ANNEX C -STAKEHOLDER INVOLVEMENT

IN UNDERTAKING ITS ANALYSIS, THE TASKFORCE SOUGHT TO ACT COLLABORATIVELY. IT HAS ACTIVELY GATHERED THE VIEWS OF STAKEHOLDERS FROM ACROSS THE PENSIONS COMMUNITY – SCHEMES, SPONSORS, TRUSTEES, ADVISERS AND SUPPLIERS TO SCHEMES, AND SCHEME MEMBERS THEMSELVES, AS WELL AS GOVERNMENT AND REGULATORS.

CALL FOR EVIDENCE

31 responses were received to the Call for Evidence, issued by the Taskforce on 9 June 2016. The full list of respondents is listed below.

ACA

Age UK

BALPA

Bob Chadwick (individual)

Con Keating (individual)

Dennis Leach, University of Warwick

(individual)

Derek Benstead FIA (individual)

Derek Scott (individual)

First Actuarial

Institute and Faculty of Actuaries

Invensys Pension Scheme Executive

J.P. Morgan Asset Management Keith Jones (individual)

Pauline Armitage (Individual)

Pensions Action Group

Plumbing Pensions UK

Prospect

Punter Southall

Redington

RPMI

Sackers

Scottish and Northern Ireland Plumbing Employers' Federation

SEI Investments

SPP	
Tesco)

The Pensions Trust

Tim Keogh (individual)

TSPP

TSSA

TUC

Universities and Colleges Employers Association

SCHEME AND SPONSOR INTERVIEWS

13 interviews were conducted with DB schemes (scheme managers and trustees) and their sponsors.

STAKEHOLDER DEPTH INTERVIEWS

ABI
ACA
Age UK
CBI
DWP
GAD
HMT
PASA
Pensions Institute
PPF
PPI
Resolution Foundation
The Investment Association
TPAS
TPR
TUC



ANNEX D -MOUSETRAP MODELLING ASSUMPTIONS

RISK-FREE RATES

The Mousetrap IRM works off a single forward rate curve extended for the time period of benefit cash flows evaluated. The forward curve used in this study was derived from a 25 year BoE gilts curve. A reversion rate of 2.7% was used and a reversion rate of 2.0% was used for the "lower for longer" scenario. The study used determined rates and a stochastic rate model was not used.

BENEFIT CASH FLOWS

A 64 year undiscounted benefit cash profile was used for schemes in the study with payments peaking in years 10-15. These cash flows reflect determined longevity and inflation assumptions.

LIABILITIES

Technical Provisions for each respective Covenant Group case were obtained by applying the forward curve and the respective SEDR set out TPR's 2016 Funding Statistics (Tranche 9) to the undiscounted benefit cash flows. Solvency liabilities were obtained by applying the forward curve and an adjustment of -0.75%.

	SEDR OUTPERFORMANCE OF GILTS
CG1 Strong	1.09%
CG2 Tending to strong	0.93%
CG3 Tending to weak	0.94%
CG4 Weak	0.73%

SCHEME ASSETS

These were derived for each Covenant Group by applying the Assets/Technical Provisions % from TPR's 2016 Funding Statistics (Tranche 9).

	ASSETS/TPs (DEFICIT SCHEMES ONLY)
CG1 Strong	88.4%
CG2 Tending to strong	85.1%
CG3 Tending to weak	82.9%
CG4 Weak	79.1%

SIMULATED RISK-BEARING ASSET RETURNS

The performance of risk-bearing assets is simulated stochastically in the IRM. Riskbearing assets are defined as comparable to equities with median outperformance of gilts of 5.0% and volatility of 15% with log normal distribution. Outperformance is reduced by 0.5% in the "lower for longer" scenario. The proportion of risk-bearing assets in the portfolio for each Covenant Group is from TPR's 2016 Funding Statistics (Tranche 9).

	% RETURN SEEKING ASSETS
CG1 Strong	48.5%
CG2 Tending to strong	49.5%
CG3 Tending to weak	51.3%
CG4 Weak	46.8%

CORRELATIONS

The study used determined rates and a single risk-bearing asset class. A correlation of 0.5 was used for sponsor cash flow and investment returns. This was increased to 0.8 for the "lower for longer" scenario. Equity market correlations by industry sector indicate that 0.8 is representative of "old economy" industry sectors.



SIMULATED RECOVERY PLANS

Initial recovery plans were derived for each Covenant Group by dividing the Technical Provisions deficit by plan length (rounded to nearest whole year) from TPR's 2016 Funding Statistics (Tranche 9). The IRM simulates Triennial Valuations and constructs new recovery plans of the same initial study plan length every 3 years.

	TRANCHE 9 RECOVERY PLAN LENGTH	STUDY PLAN LENGTH
CG1 Strong	6.2 years	6 years
CG2 Tending to strong	7.3 years	7 years
CG3 Tending to weak	8.9 years	9 years
CG4 Weak	9.4 years	9 years

SIMULATED SPONSOR FINANCIAL DEVELOPMENT

Sponsor models for each Covenant Group in the study were constructed which reflect the study prescribed initial credit ratings, initial affordability coverage ratios (available net cash flow/initial pension contribution) and net gearing ratios set out below. Based on experience these prescribed inputs were deemed to reflect an average sponsor profile for each Covenant Group.

Sponsor cash flow is simulated stochastically in the IRM. Assumptions regarding cash flow costs with priority over pension contributions are input, and the resulting cash flow available to pay pension contributions each year are then compared to simulated recovery plans. Sponsor balance sheet development is consistent with simulated cash flow and assumptions made regarding target leverage and maximum leverage.

COVENANT GROUP	CREDIT RATING	NET GEARING	COVERAGE RATIO	LONGER TERM NOMINAL GROWTH RATE
CG1 Strong	A2/ A	30%	4.0 X	3.0% pa
CG2 Tending to Strong	Baa/ BBB	40%	3.0 x	2.0% pa
CG3 Tending to Weak	Ba2/ BB	50%	2.0 X	1.0% pa
CG4 Weak	B2/B	60%	1.0 X	0.0% pa

SPONSOR DEFAULT PROBABILITIES

Annual default probabilities are determined in the IRM study by reference to a smoothed and extended default dataset (based on Moody's 20 year published data) and ratings transition matrix.

SIMULATIONS

Outputs are based on 12,000 simulations.

NOTES



OCTOBER 2016

PENSIONS AND LIFETIME SAVINGS ASSOCIATION

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