

DB Pensions: Choking Hazard

How defined-benefit schemes are throttling the UK economy

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Executive Summary

The Intergenerational Foundation (IF) is extremely concerned about the high cost of private sector defined-benefit (DB) pension schemes, which we believe are placing a severe economic burden on UK companies. This report finds that:

- DB schemes have resulted in UK private companies spending £42 billion more a year on just (the oldest) one third of pension scheme members.
- By contrast, UK companies are spending only £1.8 billion a year on defined-contribution (DC) pension schemes, which goes to the younger two-thirds of pension scheme members.
- This is equivalent to £23,600 a year being given to the average older worker in a DB scheme, compared to just £1,200 for the typical younger worker in a DC scheme – yet younger workers still have to subsidise the generous pensions of their older colleagues even though they won't benefit from DB pensions themselves.
- Private sector companies are being forced to divert massive quantities of money to service their DB pension commitments. This report suggests that if the deficit reduction contribution alone was eliminated, £35 billion would be available to:
 - boost the DC pension pot of each younger worker by £12,000, which would be ten times more than they currently receive or
 - more than double the private sector's R&D budget, making firms more innovative or
 - increase the annual pay of the typical private sector worker by £1,600, or
 - add 25% to total UK business investment.
- IF welcomes the Work and Pensions' committee's inquiry into reducing the burden of DB pension liabilities on the private sector. Possible reforms for it, and the government, to consider should include:
 - compulsorily moving all private sector DB schemes from RPI to CPI benefit uprating – saving £116 billion over the next 50 years;



- changing the accountancy system of private sector DB schemes from “marked-to-market” to a rate based on historic data – which could reduce private sector DB liabilities from £2.1 trillion to £1.3 trillion;
 - bringing a radical end to all deficit reduction payments to DB schemes – potentially saving £35 billion per year;
 - changing the tax rules covering DB pensions in respect of the Lifetime Allowance and the 25% lump sum so that they are equivalent to those for DC pensions.
- Additionally, the government should consider making it compulsory for all pension trustee boards to appoint at least one member who is under the age of 30 to represent the interests of younger and future generations.



Introduction

“We do not have a defined-benefit scheme. God help any company that does.”¹ So said one anonymous finance director surveyed in 2011, recognising the millstone that defined-benefit (DB) pensions (in which payments are independent of savings, determined instead by final or average salary) have become around the necks of some companies in the UK. Since 2006, DB liabilities have almost doubled, last year – at £2.1 trillion – exceeding total UK GDP for that year for the first time.² The joke used to be that British Airways was a giant pension fund with a small airline attached; now many UK companies, like BHS, Tata Steel and BT in recent weeks, are finding themselves similarly in the shadow of their pensions liabilities.³

This paper argues that this situation has serious consequences for intergenerational fairness. Firstly, companies are putting less into the pensions of their younger employees, most of whom are enrolled in defined-contribution (DC) pension schemes (in which payments are determined by the size of the individual pension pot). Secondly, the burden of having to pay off pension deficits is throttling the economic activity of companies, preventing them from investing, paying higher wages to their employees and undertaking mergers and acquisitions – cannibalising capital, in the words of Hyman Robertson, the pensions consultant.⁴ A situation has arisen in which older Britons are enjoying a golden retirement at the expense of the broader economy.

This paper provides a brief overview of the state of pensions in the UK private sector, and presents some of the qualitative evidence for the throttling effects, before outlining exactly how much both younger employees and the economy at large are losing out under this state of affairs. It then welcomes the recent convention of the Work and Pensions Select Committee’s inquiry into final-salary pensions, and suggests some changes to the pensions system which might begin to release the intergenerational pressure that DB pensions are placing on the rest of society.⁵

¹ Capita Fiduciary Group, Finance Director Survey: The management and impact of defined benefit pension schemes, September 2011, p. 6.

² Pension Protection Fund (PPF), *The Purple Book 2015*, 3 December 2015, fig. 4.1, p. 27.

³ Simon Jack, ‘BHS pension hole “may swallow the firm”’, *BBC News*, 23 March 2016; Jim Pickard, ‘Tata chief warns of growing pension deficit if Port Talbot closed’, *Financial Times*, 28 April 2016; Lisa Smith, ‘More Gold-Plated Company Pensions In Crisis’, *Investing Expatriates*, 6 June 2016.

⁴ *Ibid.*

⁵ <http://www.parliament.uk/business/committees/committees-a-z/commons-select/work-and-pensions-committee/inquiries/parliament-2015/pension-protection-fund-15-16/>, Accessed 5 June 2016.



A potted history of defined-benefit pensions in the UK

Defined-benefit schemes had always been part of the pensions mix, but they really came to dominate the scene in the 1960s and 1970s: in 1979, 92% of all pension funds operated some kind of defined-benefit system.⁶ In part, this was due to the Labour government taxing wages, meaning pension provision was an efficient way of rewarding employees; it was also the consequence of strong labour bargaining power. This trend began to reverse from the mid-1990s: 1993 was the last year that all 100 FTSE100 companies offered DB schemes to new employees. By 2001 this figure was 75; in 2003 it fell below 50, and by 2015 there were only 3.⁷

Across this period, the funding position of DB schemes experienced a rise and fall. The 1980s and 1990s, the period characterised for some by contribution holidays and tax raids, saw a strong funding position in DB schemes; from the later 1990s, and especially since the turn of the century, schemes have increasingly been in deficit. The escalating costs of providing DB pensions are the reason so many schemes have been closed to new members, as companies try to limit their exposure.

Why have costs risen so significantly? There are three groups of reasons. Firstly, and most importantly, actuaries consistently underestimated improvements in longevity. Many schemes were established in the 1940s and 1950s, following several decades of stable life expectancy at retirement (increases in life expectancy in the first half of the 20th century were driven mostly by reductions in mortality among younger parts of the population – see Fig.1). Actuaries also relied on historical data for their estimates, which did not predict the relatively rapid growth of longevity at retirement which has occurred since the 1960s. Trustees used these projections as the bedrock of their assessment of funding positions, and so put aside much less money (or promised to pay out more money) than – it turns out – was realistic.

⁶ Yally Avrahampour, “A Recent History of UK Defined Benefit Pension Provision and Management”, from http://www.lse.ac.uk/management/documents/A_Recent_History_of_UK_Defined_Benefit_Pension_Provision_and_Management.pdf, Accessed 2 October 2015.

⁷ KPMG, “The future of defined benefit pension provision: an analysis of the FTSE 100”, June 2015, p. 3.

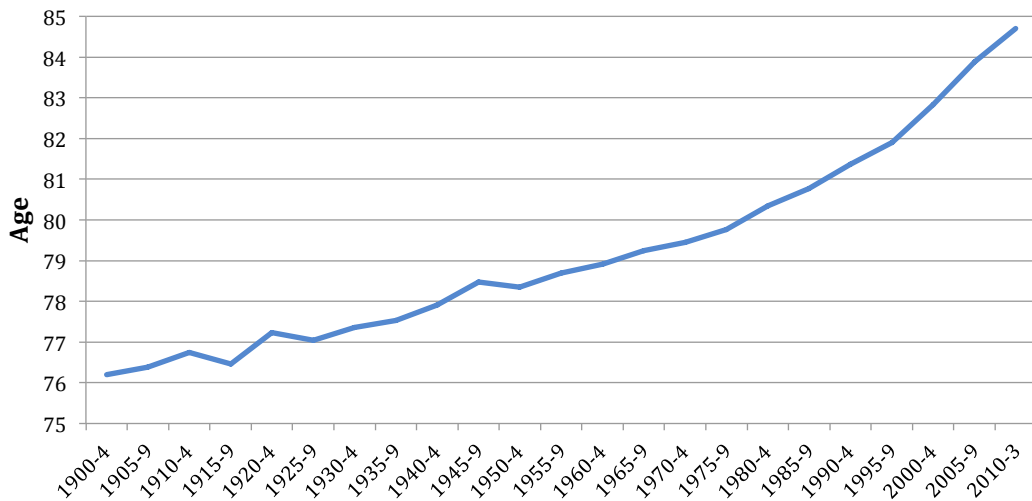


Fig.1 Life expectancy at age 65 in England and Wales, 1990–2010⁸

Secondly, DB pension funds have been hit by what the Pensions Institute has called the “perfect storm”: low long-term interest rates (Figure 2), which raise the value of pension liabilities, and the stock market declines of the early 2000s, which lowered returns.⁹

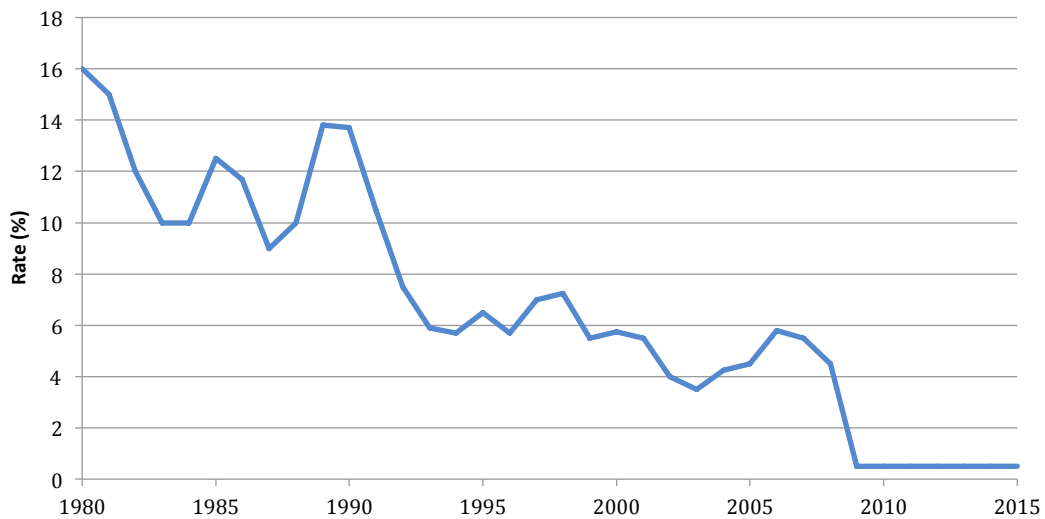


Fig.2 Long-term Bank of England Interest Rates, 1980–2015¹⁰

⁸ Figures from the Human Mortality Database, <http://www.mortality.org>.

⁹ John A. Turner and Gerard Hughes, “Large Declines in Defined Benefit Plans Are Not Inevitable: The Experience of Canada, Ireland, the United Kingdom, and the United States”, Discussion Paper PI-0821, The Pensions Institute, April 2008, p. 5.

¹⁰ Figures from the Bank of England, <http://www.bankofengland.co.uk/boeapps/iadb/Repo.asp>.



The optimism about the future of DB pension schemes in the 1980s and 1990s was based on ambitious projections of the returns on equities, which in hindsight look wildly overconfident. When the bullish performance of equities came to its (inevitable) end in 2000, the funding position of pension funds suddenly looked much more vulnerable; and the expected returns on assets had to be dramatically adjusted downwards. Some also argue that a shrinking equity premium has made it more expensive to fund pension liabilities.¹¹

Finally, partially as a consequence of the first two causes, companies and policy-makers were overconfident about the state of pension funding and took advantage of what looked like low-hanging fruit. Nigel Lawson's 1986 introduction of taxation on pension fund surpluses was the first in a string of bad decisions. What looked like surpluses were actually necessary buffers for the increased costs of scheme maturity, when there would be fewer people paying in and more taking out. Companies were instantly disincentivised from buttressing their funding position, exactly the opposite of what should have been happening. Companies were also buoyed by the appearance of surpluses, and took contribution holidays (when they didn't add to the pension pots) throughout the 1980s and 1990s, believing that their funding position was so strong that they could afford to do so. As it turns out, they could not. The Pensions Act 1995 (a response to the mis-selling scandals of the early 1990s and Robert Maxwell's £400 million theft from the Mirror Group pension fund) set a woefully low Minimum Funding Requirement and an implausibly high, index-linked rate at which pensions in payment had to grow (RPI plus up to 5%). This pushed the true cost of pensions yet higher. Norman Lamont's 1993 reduction of the tax credit on share dividend payments for pension schemes, followed by Gordon Brown's abolition of it altogether in 1997 ("The £5 billion raid"), proved yet another blow – foreseen but believed to be eminently manageable – to DB schemes. Finally, legislation introduced 2003 changed pensions from aspirational promises to ironclad commitments by making abandonment of pension funds illegal.¹² DB pension schemes were, as Adair Turner (chairman of the pensions commission and former head of the Confederation of British Industry) put it, a "house of cards that was always going to fall."¹³

¹¹ Jack Selody, "Vulnerabilities in Defined-Benefit Pension Plans", Working Paper 2007-3, Bank of Canada, 2007.

¹² The legislation was contained in the Pensions Act 2004 and the Transfer of Employment (Pension Protection) Regulations 2005, SI 2005/649; the provisions came into effect in April 2005.

¹³ Adair Turner, "A Pensions House of Cards that Was Always Going to Fall", Financial Times, 22 April, 2007.



Intergenerational unfairness

Companies have therefore been left struggling to pay their DB commitments. They have responded in four ways, three of which, this paper contends, are intergenerationally unfair. Firstly, they have offered restructuring deals to members of DB schemes, often exchanging the current pension for a higher but non-index-linked pension. For example, BAE carried out a Pension Increase Exchange (PIE) in 2014, in which 38% of pensioners agreed to accept such a deal; and there were around 80 Enhanced Transfer Value (ETV) exercises (involving around 90,000 members) from 2008 to 2011.¹⁴ In intergenerational terms, some such deals are an imperfect but acceptable way for companies to try to cut their DB liabilities, as long as they follow government guidance on fairness and transparency. However, it often is not in the scheme member's interests to accept one of these deals, so their potential to resolve the problem is quite limited.

The three other strategies, however, have more serious intergenerational implications. Primarily, companies have been closing DB schemes to both future accrual and new members (see Fig.3). This means younger members of DB schemes will often not be building up DB benefits in the way their predecessors did; and someone starting work in a FTSE100 firm today is very unlikely to receive a DB pension.¹⁵ The intergenerational consequences are obvious: companies are pulling up the drawbridge on generous pension arrangements.

Pension funds are also changing their investment strategies to reflect the growing liabilities they face. Significantly, they are moving away from equities and towards gilts and fixed-investment assets, as Figure 4 shows. Pension funds are making less dynamic use of the vast sums of money they control; and the wider economy loses out as a result.

Finally, companies are putting aside significant sums of money to plug the hole between DB assets and liabilities. Calculations by the Intergenerational Foundation (IF) show that around £42 billion is diverted from other economic activity in an attempt to reduce the deficits faced by DB funds.¹⁶ The bottoming out of long-term interest rates since the Great Recession of 2008/9 has meant that DB deficits loom much larger than they have done in the past, and probably will do in the future. Deficits are calculated using marked-to-market accounting, which means that current interest rates are used to estimate how much of today's money will be needed to pay a debt in, say, 20 years' time.

¹⁴ Pensions Policy Institute, "The changing landscape of pension schemes in the private sector", June 2012, p. 4; KPMG, "Enhanced Transfer Values: KPMG Pensions Survey" August 2011, p. 5.

¹⁵ Pensions World, "After Tesco just three FTSE 100 companies remain with DB schemes open to new members", 8 January 2015.

¹⁶ See Appendix 1.

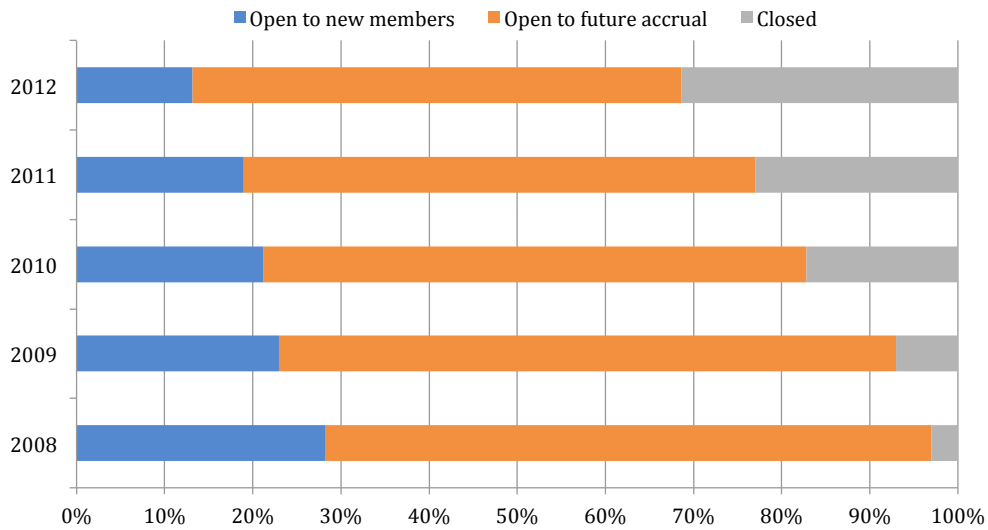


Fig.3 Private sector DB scheme status, 2008–12¹⁷

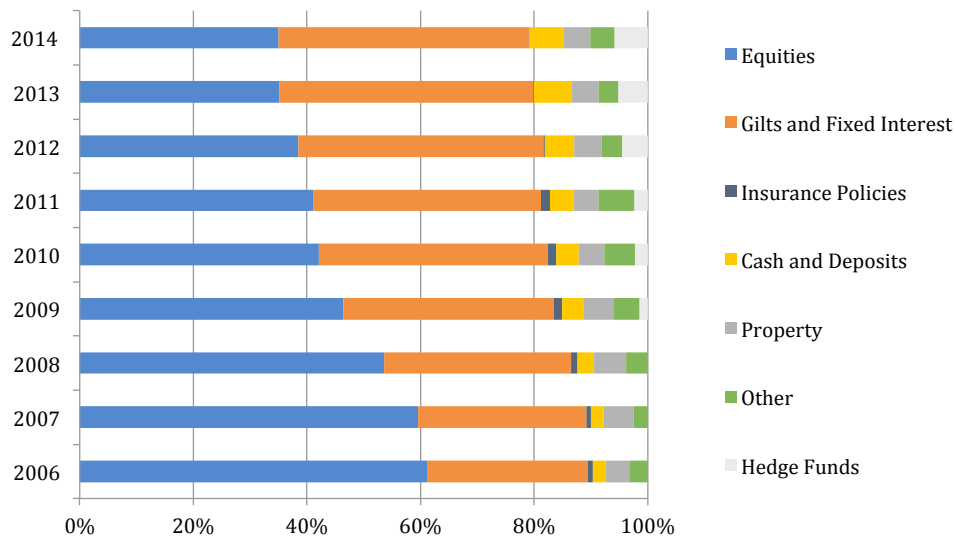


Fig.4 Average asset allocation among funded private sector DB schemes, 2006–14¹⁸

Low interest rates make these sums appear artificially large in today's terms; if rates rise, the deficit will shrink, and companies will not be obliged to set aside so much money each year.

¹⁷ National Association of Pension Funds, "Trends in defined benefit asset allocation: the changing shape of UK pension investment", July 2013, p. 6.

¹⁸ PPF, "The Purple Book", 2014, fig. 7.2, p. 57.



Most expect a rate rise sooner or later; but this has been the position for several years now, and no rise has taken place – indeed, in November 2015 the Bank made a dovish signal that it did not anticipate raising rates until Spring 2017.¹⁹ If the Bank of England does raise interest rates significantly, some (but by no means all) of the problem outlined in this paper will be alleviated; but such a rise might not take place for years to come, and even when it does it would not solve the underlying structural problems in the UK pensions system.

¹⁹ Emily Cadman and Chris Giles, “Bank of England signals rates can remain at lows until 2017”, Financial Times, 5 November 2015.



1. Qualitative evidence of throttling

There is a growing body of evidence from across the UK economy that DB pension commitments are acting as a drag on the activities of companies. A Bank of England survey in 2013 asked finance directors how having DB commitments affected their decision-making, the results of which are presented in Figure 5. In particular, the survey found, having to set aside money to pay down DB deficits impacts on investment decisions, pay decisions and the ability to sell, buy and restructure their businesses.

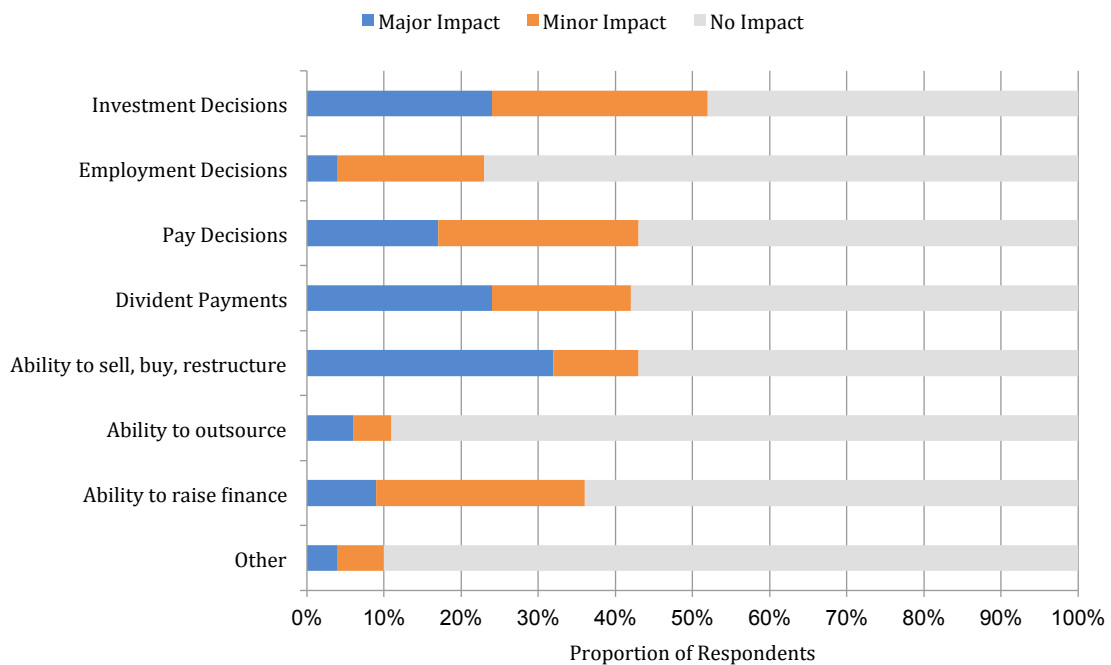


Fig.5 Responses to a Bank of England survey of finance directors asking them how much impact DB liabilities had on different aspects of their businesses²⁰

Another survey, undertaken by Capita Fiduciary Group in 2011, asked finance directors for their impressions of the effect DB commitments were having.²¹ The responses were unequivocal: one finance director argued that “the impact [of DB liabilities] is obscene, and leads to lower D&B rating, higher PPF levies and other problems” (a company’s D&B – Dun and Bradstreet – rating is a measure of the risk associated with doing business with that company).

²⁰ Bank of England, Agents’ Summary of Business Conditions, June 2013, p. 6.

²¹ Capita Fiduciary Group, Finance Director Survey: The management and impact of defined benefit pension schemes, September 2011, p. 6.



Another, quoted in the introduction, replied by saying that “we do not have a defined-benefit scheme. God help any company that does.” The evidence from finance directors, looks unequivocal that private sector DB commitments are a burden on the UK economy.

There are even fears that some companies will be forced into receivership under the weight of their DB commitments. The Pensions Institute recently estimated that 400 DB schemes (out of the 6,000 in the UK) are so unsustainable that their sponsoring companies face the prospect of insolvency if policy remains the same.²² There have been several cases over the last few years – such as the Armstrong Group, Visteon UK and Reader’s Digest UK – in which DB pensions played a significant role in the insolvency.²³ Currently, the retail chain British Home Stores (BHS) is facing insolvency partly because of its pension deficit of £571 million, which is likely to become one of the largest private sector schemes the Pension Protection Fund has ever rescued.²⁴ Worryingly, there are legitimate fears that the pressure of DB commitments in the coming years will see more sponsoring companies dragged under. The cost of the throttling effect looks certain to grow as these schemes mature and more money has to be spent on payouts.

²² Debbie Harrison and David Blake, “The Greatest Good for the Greatest Number: an examination of early intervention strategies for trustees and sponsoring employers of “stressed” defined benefit schemes”, The Pensions Institute, December 2015, p. 8; members of insolvent schemes would have their pensions covered (to an extent) by the PPF, which is mostly funded by a government-backed levy on eligible pension schemes – so the risk is borne by the wider pensioner community

(see <http://www.pensionprotectionfund.org.uk/levy/Pages/PensionProtectionLevy.aspx>)

²³ Stephen Seawright, “Government’s pension lifeboat blamed for company’s collapse”, The Telegraph, 15 March 2006; “Visteon Moves to Erase \$555m claim from UK regulators”, Global Insolvency, 13 April 2010; Salamander Davoudi and Norma Cohen, “Pension woes hit Reader’s Digest UK”, Financial Times, 18 February 2010.

²⁴ Simon Jack, “BHS pension hole ‘may swallow the firm’”, BBC News, 23 March 2016



2. What's the cost?

This chapter gives the answer to two quantitative questions:

1. How much do DB pensions cost a year (compared to DC)?
2. What else could the private sector be doing with this money?

Most of the data which would be required to answer these questions precisely is not publicly available, therefore IF has attempted to estimate answers through the use of the data published by the Pensions Regulator on the funding status of pension funds.

1. How much do DB pensions cost a year (compared to DC)?²⁵

DB pension costs are made up of two constituent elements: future service contributions (FSCs) and deficit reduction contributions (DRCs). FSCs are when companies mirror the money put aside by their employees; DRCs are when companies redirect money to pay down their pensions deficits.

Companies put aside, on average, £7 billion p.a. in future service contributions. This is compared to £1.7 billion annually for DC pensions.

On top of the money with which companies match their employees' contributions, they put aside, on average, £35 billion p.a. in deficit reduction contributions. This is the area of key intergenerational concern, as DRCs are found by redirecting other assets, or abstaining from generally beneficial economic activity. They are, in essence, a transfer payment from young to old.

Taken together, the total cost of DB pensioners comes to £42 billion a year (Fig.6).

²⁵ For full calculations see Appendices 1 and 2.

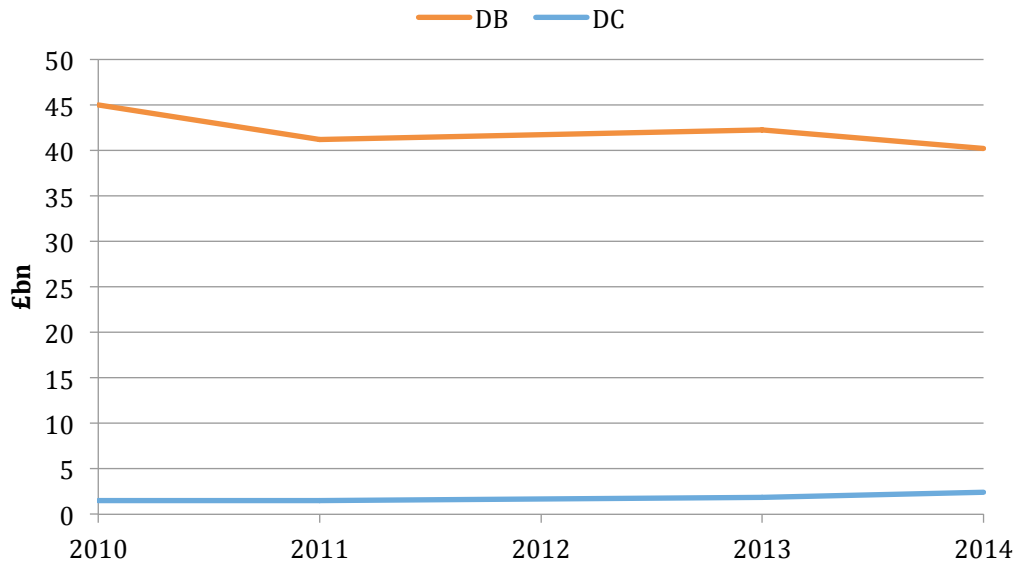


Fig.6 Comparison of total annual cost between private sector DB and DC pension schemes, 2010–14

The intergenerational disparity appears even more dramatic when we look at money put aside per person (Fig.7): companies put aside an average of £23,600 per DB scheme member per year, but they put aside only £1,200 per DC scheme member: that’s almost 20 times more put aside for older workers!

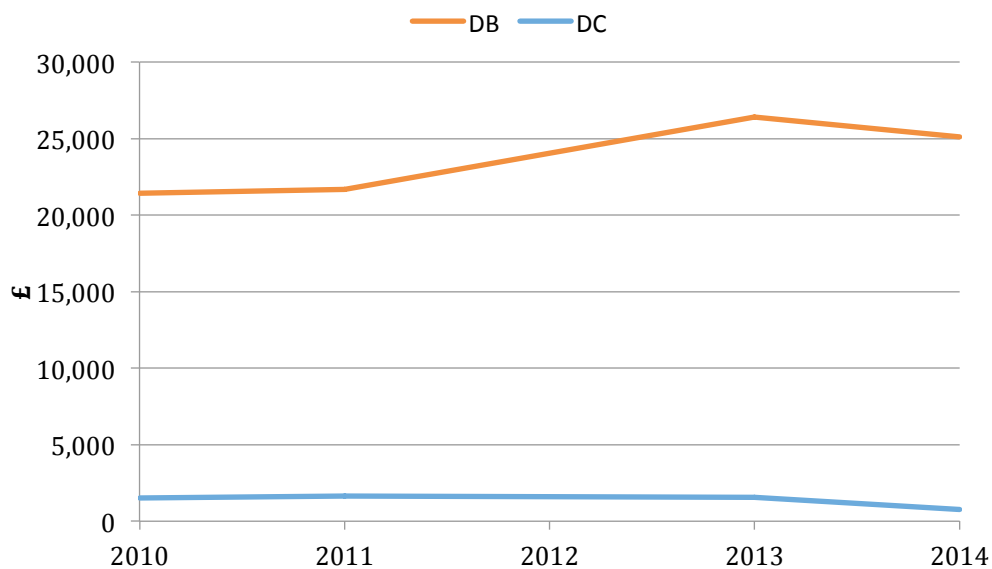


Fig.7 Comparison of average annual cost per person between private sector DB and DC pension schemes, 2010–14



2. What could we be doing with this money?²⁶

Companies are being throttled because of the £42 billion a year they must spend on DB pensions; they cannot use that money for other purposes. But what if they could? If they had £42 billion to spend on alternative economic activities, companies could:

- spread the money they spend on pensions equally between young and old, which would add £12,000 a year to the pension pot of each DC pensioner, increasing the contribution from £1,200 to £13,600;
- more than double the private sector's current Research and Development budget, leading to more innovation, technological improvement and a more dynamic economy;
- spend it on wage increases (which finance directors admit they are currently held back from doing), and give the average private sector worker a £1,600 pay rise;
- invest the money in creating, developing or expanding UK companies, adding 25% to total business investment.

²⁶ See Appendix 2.



3. What next?

The evidence looks clear that the throttling effect is real, significant, and, without intervention, will only diminish in the very long-term (i.e. as the final generation which belongs to DB schemes dies out). At its heart, the issue is that private sector workers were given promises which in hindsight turned out to be too generous; and, while unpicking a promise is never an easy option, the cost of these promises to the younger generation and the overall British economy is too high to leave things as they are. While there is a range of possible remedies that could address these issues, each one would come with drawbacks that make it less than ideal.

Aware that no solution is perfect, IF welcomes the Work and Pensions' recently-announced inquiry into the issue, taking a fresh look at the policy options outlined below, amongst others. When a problem is this large and complicated, it is ultimately for our elected leaders to decide how the costs and benefits of addressing it should be shared between the different stakeholders.

Below are five options the inquiry should consider; these solutions are not mutually exclusive, and indeed only a combination of several policy changes will, in all likelihood, really start to address the issue. We outline the specific problem, the possible solution, and objections to it.

1. Bring inflation uprating in line with government guidelines, and ringfence the savings for “virtuous” spending.
2. Move from marked-to-market accounting to a history-based rate.
3. Radically cease all deficit reduction payments.
4. Remove unfair tax privileges from DB pensioners.
5. Appoint one under-30 on every trustee board.

1. Bring inflation uprating in line with government guidelines, and ring-fence the savings for “virtuous” spending

The Problem

In 2011, the government moved to using the Consumer Price Index (CPI), rather than the (usually higher) Retail Price Index (RPI), as its measure of inflation for state and public sector pensions.



It gave two key reasons: CPI is the measure the Bank of England uses for their inflation target, and it excludes mortgage payments and so more accurately reflects the living costs of pensioners (only 7% of whom have mortgage payments outstanding).

What followed is known in the industry as the “small print lottery”. Pension funds dusted off their founding documents, looking at the specific wording of their inflation rules. All the funds had been set up with the intention of using the official measure of inflation, but at the time there was no question that this was RPI. Those funds which referred to “the government’s measure of inflation” (or words to that effect) were able to switch their uprating to CPI; the unlucky ones had specified RPI, and so were stuck with it. The spirit of the law was certainly that the official inflation rate should be used; the letter, in many cases, left RPI mandated.

The Possible Solution

The small print lottery could be counteracted. The government could introduce a mandatory statutory override, allowing all funds to uprate both revaluation in deferment and indexation in payment by CPI, a change that would simply be adjusting the letter of the law to match the spirit. This idea is reportedly being considered by the Business Secretary with respect to the pension liabilities of Tata Steel; it could be extended to all DB schemes.²⁷

However, if this was the extent of the change, we would have a simple transfer from pensioners to companies. This cannot be fair: it is not the fault of pensioners that the system is in crisis, and in many cases some of the blame can be laid at the door of the companies themselves. We cannot have a situation in which the necessary savings are made but merely given out as dividend payments or the like. Therefore, the savings could be ring-fenced by the government for economic activity which will contribute to the economy at large: research and development, capital investment etc. In this way, the throttling effect could be mitigated, but simply transferring money from pensioners to companies, with few other benefits, would be avoided.

How much could this policy save? IF has modelled the potential benefits, and we estimate that moving to CPI across the board would save **£116 billion** over the next 50 years.²⁸

The Objection

²⁷ Jim Pickard and Michael Pooler, ‘Javid Weighs £2.5bn trim for British Steel pension fund’, *Financial Times*, 11 May 2016.

²⁸ See Appendix 3.



Though the spirit of the contracts was certainly that pensions should be uprated by the official government rate, the letter specified RPI. Using legislation to move from RPI to CPI for all DB pensions would require the government to break private contracts, a move some are understandably loath to make.

Another option is for the government to stop calculating RPI: contracts that rely on RPI would have to then find other arrangements, and CPI would present itself as an obvious candidate. However, this would not ensure the move to CPI as legislation would; and the government would have to cease using RPI for various other purposes, like index-linked gilts.

2. Move from marked-to-market accounting to a history-based rate

The Problem

One of the reasons liabilities loom so large on companies' current balance sheets, and such significant deficit reduction contributions (DRCs) are needed, is the system of accounting required for UK pensions. Known as "marked-to-market" (MTM), the system takes today's long-term interest rates, currently at rock bottom, and uses those rates to discount from future commitments (promises to pay pensions) to arrive at a figure for current funding requirements to meet those commitments. Very low rates mean that very low returns are expected (in this model); so companies are required to set aside a lot of money in order to meet their commitments, and therefore DRCs have to be high.

MTM might not be the right system for accounting for pensions. The government recognises this with regard to public sector pensions, but goes too far: it uses a discount rate of more than 3%, and is therefore able to make its pension commitments look much smaller than they really are.²⁹ In this case, MTM requires companies to set aside money when there is no real need to do so: finance directors know that they can make much more than 0.5% p.a. on their capital. In fact, since 2011, DB pension funds (which are conservative compared to most investors) have made 2.8% p.a. on their money.³⁰ So it makes little sense to force them to put money aside as if their potential return is much lower.

²⁹ IF has written elsewhere on this issue: <http://www.if.org.uk/archives/5216/the-600-billion-question-how-public-sector-pension-liabilities-are-being-undervalued-at-the-expense-of-future-generations>.

³⁰ See Appendix 4.



The Possible Solution

Pension funds could be allowed to use a discount rate which tracks their historic returns, i.e. the average annual rate of return over the previous five years (as estimated by the Pensions Regulator).³¹ Such a historic rate of return (HROR) discount rate, grounded in the actual performance of funds, would serve the interests of companies, who can operate more freely, and the wider economy, which would benefit from a pensions system closer aligned with actual economic performance.

This policy would reduce throttling significantly, but only to the extent that current DRCs are artificially low: actual pension commitments would remain unaffected. It is also true that some companies might simply hold the freed-up money as cash: but that might be no bad thing, as it would contribute to the private sector's resilience to future shocks and enhance its potential flexibility.

We calculate that adopting an HROR system would mean that present liabilities, expressed under MTM as almost £2.1 trillion, would appear as only **£1.3 trillion**.³² The excessive contributions that funding ratios currently require companies to undertake would effectively disappear, and the liability figure would much more accurately reflect how much pension promises will cost companies when they come due.

The Objection(s)

Firstly, this policy faces problems with implementation. Accounting procedure is mostly determined at an EU level, and there is limited room for manoeuvre at the national level. However, this is not fatal: other countries, such as Denmark and Sweden, have already set floors to the private sector pension discount rate, and if decisions need to be taken at the European level the British government could have a leading role in promoting this policy.³³

Secondly, some worry that having too high a discount is much more dangerous than having too low a discount rate; and that a major *cause* of the current problems has been artificially high discount rates. Low discount rates mean, to some, that we take the interests of the future seriously; this must, in general, be intergenerationally favourable. However, this concern must be considered alongside the throttling effect, which is a short-term negative consequence of using artificially low rates.

³¹ We reject as short-sighted the US system, which changed to a discount rate based on 12-year historic interest rates when the Fed lowered rates; we have now had six years of 0.5% in the UK, and so using historic bond yields would trap pension funds into putting unnecessary DRCs aside even when the economy had recovered to something like normal times.

³² See Appendix 5.

³³ Robert Pozen and Theresa Hamacher, "A realistic discount rate for pensions", *Financial Times*, 19 August 2012.



3. Radically cease all deficit reduction payments

The Problem

The heart of the DB issue is that significant promises have been made, which, for various reasons outlined in Chapter 1, turned out to be unsustainable. People in older generations have built their life plans on the assumption that these promises will be honoured; but people in younger generations are having to constrain their life plans because they have to honour them. Someone has to lose out.

The Possible Solution

A radical answer is for no more deficit reduction contributions to be paid. All the assets (worth almost £1.2 trillion) that are currently assigned to pay DB pensioners could be kept, but without the £35 billion p.a. top-up transfers. Current workers could continue to pay into the pot, and employers would have the same obligations to match contributions as before; but older pensioners would only get the money they've saved, rather than their savings plus a transfer payment.³⁴ With appropriate transitional arrangements, this system could enable a sustainable pensions system for the long term, and prevent a generation of Britons paying for a retirement they will not be able to enjoy themselves.

The Objection

This is clearly a drastic option. It is dramatically redistributive, at a swoop reducing the pensions of several million citizens by a large amount. For some, this is enough to rule the idea out; for others, this kind of cost combined with the fact that these pensions are contractual promises means it is untenable. But the radical appearance of this option throws into stark relief the scale of the problem facing us: the suggestion is only to stop future transfer payments, and the apparent redistribution that would follow is merely stopping DB-driven redistribution (from young to old) already in train.

There is a second, less fundamental worry: that some would lose their entire pension pots, and find themselves not only worse off but hard done by. If this happened it would be grave indeed, but this option is predicated on the design of appropriate transitional arrangements avoiding exactly this kind of possibility. This policy would have to be cross-company, too, to avoid locking in deficits to the detriment of specific pensioners.

³⁴ The extent to which this newly formed pot would be collectivised as collective defined contribution pension schemes (CDCs) or be split up as individual defined contribution pension schemes (IDCs) remains an open question, beyond the scope of this paper.



4. Remove unfair tax privileges from DB pensioners

The Problem(s)

An important aspect of the unfair divide between DB and DC pensions is that the tax system treats DB pensions more favourably in several important respects. Firstly, the lifetime allowance limit – the amount of pension saving someone is allowed to make tax-free, which will be £1 million from April 2016 – works unfairly because DC pension pots are valued directly, whereas DB pensions are valued as 20 times the annual income (so a DB pension worth £40,000 a year would be valued at £800,000 for the purpose of lifetime allowance). This factor of 20 is unrealistic. The annuity factor (a market expression of how much DB pensions should be factored up) is closer to 30.³⁵ This means that the market values a £40,000 p.a. DB pension at more like £1.2 million; so this pensioner would be getting £400,000 tax free. This is bad enough; but worse is that the factor of 20 remains for DB pensioners taking early retirement, when each extra year of DB pension directly adds to its value. Secondly, some DB pensioners can still take more than 25% of their pension benefits as a tax-free lump sum under the Pensions Commencement Lump Sum system (depending on their scheme specifications), whereas this option no longer exists for DC pensioners.

The Possible Solution(s)

To begin, the lifetime allowance system could change; the most obvious reform would be to increase the factor to more accurately reflect the true value of DB pension rights, with those taking early retirement having a higher one. Secondly, it would improve fairness to remove the discrepancy over lump sums so that all pensioners are bound by the same rules.

Finally, we call on the government to look at the system of buying years of past service, and consider introducing a tax on such purchases. Though we recognise that such purchases may sometimes be appropriate (for example, for parents who took significant leave to look after their children), often such purchases merely add to the overall DB burden at the expense of those employees who do not have such an opportunity. The government should look hard at whether this system can continue to exist for those who really need it, whilst closing the loophole for those who unfairly take advantage of it.

These changes would have a significant impact: we know 61% of liabilities are in respect of active or deferred members, so the majority of pension savings are still to be taxed (or not) in the ways described above.³⁶

³⁵ Ceri Jones, “Final salary pension schemes: assessing transfer values”, Money Observer, 23 October 2015.

³⁶ PPI, The Purple Book 2015, 3 December 2015, fig. 4.19, p. 36.



The Objection

Although most people would support the principle of fairer taxation, adding to the tax burden of pensioners means some might oppose this policy. Some might argue that it would give today's young people a disincentive to save for their future. However, the reforms suggested here would be highly progressive, only taking large sums of money away from the wealthiest pensioners; and the disincentive for younger savers has to some extent been reduced by the Chancellor's new Lifetime ISA scheme, which will probably enable today's young people to withdraw their retirement incomes on a tax-free basis.

5. Appoint one under-30 on every trustee board

The Problem

Better representation of the younger generation could help prevent this kind of problem developing in the future. We understand that decision-makers try to act in the interests of all they represent; and that is especially the case with pension trustees, who have a fiduciary duty to do so. But under the current system, inevitable conflicts of interest arise: many trustees are themselves final salary pensioners, and have no experience of belonging to the DC generation.

The Possible Solution

As best practice, pensions schemes could have one under-30 on every trustee board. This could provide the necessary mix of generational perspectives, but would not, we are confident, lead to a division of representational labour, as each trustee would still have a duty to take the interests of their scheme members as a whole. No one can predict exactly what intergenerational issues will arise in the future; having someone who cannot avoid being alive to them might help in seeing them earlier and dealing with them more effectively.

The Objection

This proposal is less controversial. The worry is less that this solution would be harmful, and more that it would be toothless. Trustees have much more say over the asset allocation of trusts, rather than dealing with liabilities, and so some think this policy would have little effect. Still, it is worth considering; not just because little effect is more than no effect, but also because it could be symbolically important – a recognition that this problem has arisen and that we must take steps to address it.



4. Conclusion

Pensions in the private sector are a broken system. A generation of workers were given promises that cannot, it turns out, be kept; and the next generation are being forced to foot the bill, to the tune of £42 billion every year. By transferring this money up the generational ladder, younger Britons are missing out on decent pensions themselves, and on higher wages; and companies are unable to invest, research, and carry out business activity which would benefit us all. This cannot continue.

There are no easy solutions; each policy option before the government has significant drawbacks. But the government must do something to stop the rot. The inquiry into this issue is well-timed and important, and must talk to DB pensioners, finance directors, young workers and all other stakeholders. No answer will benefit everyone, so those bearing the inevitable costs of righting this intergenerational unfairness have a genuine role in the decision-making process.

We must also learn from the history of DB pensions, and try to ensure that this kind of situation does not re-emerge. Optimistic forecasting, opportunistic taxation and an unwillingness to adapt to new circumstances all played a role; and all will play a similar role in the storing up of new unfairnesses if we do not think carefully about what went wrong, and if we do not make both structural and cultural changes to ensure that the same mistakes will not be made again. Intergenerational fairness requires rectification on the one hand, and continued conversation and vigilance on the other.



Appendices

Appendix 1

Calculating the cost of pensions, DB and DC

DB payments = FSCs + DRCs

FSCs = Median Salary of UK worker (in private sector)³⁷ x Number of Active Members³⁸ x Average Employer Contribution Rate (as % of employee salary)³⁹

2010. FSCs = 24,700 x 2,100,000 x 0.158
= 8,195,460,000

2011. = 25,000 x 1,900,000 x 0.142
= 6,745,000,000

2013.⁴⁰ = 25,797 x 1,600,000 x 0.154
= 6,356,380,800

2014. = 26,000 x 1,600,000 x 0.158
= 6,572,800,000

³⁷ Office for National Statistics, Annual Survey of Hours and Earnings, 2013 Revised Results, 19 November 2014 Table 9.

³⁸ ONS, Occupational Pension Schemes Survey 2010, table 3.3, p. 16; ONS, Occupational Pension Schemes Survey 2011, table 3, p. 8; ONS, Occupational Pension Schemes Survey 2012, fig. 4, p. 7; ONS, Occupational Pension Schemes Survey 2013, p. 15; ONS, Occupational Pension Schemes Survey 2014, p. 8.

³⁹ ONS, Occupational Pension Schemes Survey 2010, table 4.2, p. 31; ONS, Occupational Pension Schemes Survey 2011, p. 1; ONS, Occupational Pension Schemes Survey 2012, p. 1; ONS, Occupational Pension Schemes Survey 2013, p. 1; ONS, Occupational Pension Schemes Survey 2014, p. 12.

⁴⁰ The funding ratios for 2012 were released in a different form, and we were unable to derive an estimate for DRCs from them. Given the stability of costs over time, and the absence of any external reason for 2012 to deviate from this pattern, it is a reasonable assumption to take an average of 2010, 2011 and 2013 and assume that 2012 data would not alter it significantly.



DRCs are more difficult to calculate. An estimate of their cost can be arrived at indirectly, through the following calculation:

$$\text{DRCs} = (\text{Pension Protection Fund Assets}^{41} / \text{Ratio of Technical Provisions (TPs) : Assets}^{42} / \text{Ratio of TPs to Reference Liabilities}^{43}) \times \text{DRCs as \% of Reference Liabilities}^{44}$$

$$\begin{aligned} 2010. \text{ DRCs} &= (926,200,000,000 / 0.764 / 0.824) \times 0.025 \\ &= 36,781,057,795 \end{aligned}$$

$$\begin{aligned} 2011. &= (968,500,000,000 / 0.842 / 0.902) \times 0.027 \\ &= 34,430,613,416 \end{aligned}$$

$$\begin{aligned} 2013. &= (1,118,500,000,000 / 0.845 / 0.812) \times 0.022 \\ &= 35,862,943,423 \end{aligned}$$

$$\begin{aligned} 2014. &= (1,137,500,000,000 / 0.848 / 0.878) \times 0.022 \\ &= 33,611,176,774 \end{aligned}$$

Taking these two costs together:

Total DB cost = FSCs + DRCs

$$\begin{aligned} 2010. &= 8,195,460,000 + 36,781,057,795 \\ &= 44,976,517,795 \end{aligned}$$

$$\begin{aligned} 2011. &= 6,745,000,000 + 34,430,613,416 \\ &= 41,175,613,416 \end{aligned}$$

$$\begin{aligned} 2013. &= 6,356,380,800 + 35,862,943,423 \\ &= 42,219,324,223 \end{aligned}$$

$$\begin{aligned} 2014. &= 6,572,800,000 + 33,611,176,774 \\ &= 40,183,976,774 \end{aligned}$$

So we arrive at annual average cost of £42bn for DB.

⁴¹ PPF, *The Purple Book 2014*, 4 October 2014, fig. 4.1, p. 27.

⁴² The Pensions Regulator, *Scheme Funding Statistics 2015 (Appendix)*, May 2015, fig. 2.1, p. 5.

⁴³ *Ibid.*, fig. 2.5, p. 11.

⁴⁴ The Pensions Regulator, *Scheme Funding Statistics 2015*, May 2015, p. 8.



DC pensions, by contrast, consist solely of FSCs. So, again:

FSCs = Median Salary of UK worker (in private sector)⁴⁵ x Number of Active Members⁴⁶ x Average Employer Contribution Rate (as % of employee salary)⁴⁷

2010. FSCs = 24,700 x 1,000,000 x 0.062
= 1,531,400,000

2011. = 25,000 x 900,000 x 0.066
= 1,485,000,000

2012. = 25,251 x 1,000,000 x 0.066
= 1,666,566,000

2013. = 25,797 x 1,200,000 x 0.061
= 1,888,340,400

2014. = 26,000 x 3,200,000 x 0.029
= 2,412,800,000

Coming to an annual average cost of £1.8bn.⁴⁸

Cost per person

Cost per person = total cost/number of members

Total costs (£bn)

	DB	DC
2010	44.9765178	1.5314
2011	41.17561342	1.485
2013	42.21932422	1.8883404
2014	40.18397677	2.4128

⁴⁵ ONS, Annual Survey of Hours and Earnings, 2013 Revised Results, 19 November 2014, Table 9.

⁴⁶ ONS, Occupational Pension Schemes Survey 2010, table 3.3, p. 16; ONS, Occupational Pension Schemes Survey 2011, table 3, p. 8; ONS, Occupational Pension Schemes Survey 2012, fig. 4, p. 7; ONS, Occupational Pension Schemes Survey 2013, p. 15; ONS, Occupational Pension Schemes Survey 2014, p. 8.

⁴⁷ ONS, Occupational Pension Schemes Survey 2010, table 4.2, p. 31; ONS, Occupational Pension Schemes Survey 2011, p. 1; ONS, Occupational Pension Schemes Survey 2012, p. 1; ONS, Occupational Pension Schemes Survey 2013, p. 1; ONS, Occupational Pension Schemes Survey 2014, p. 12.

⁴⁸ The number of members for 2014 is significantly higher because of the new automatic enrolment scheme.



Number of members

	DB	DC
2010	2100000	1000000
2011	1900000	900000
2013	1600000	1200000
2014	1600000	3200000

Cost per person (£)

	DB	DC
2010	21417.38943	1531.4
2011	21671.37548	1650
2013	26387.07764	1573.617
2014	25114.98548	754



Appendix 2

“Add £12,000 a year to the pension pot of each DC pensioner, increasing the contribution from £1,200 to £13,600”

£43,935,679,332 (total pension cost per year) / 3,240,000 (average number of active members across both types of scheme) = £13560; compared with £1,200 currently.

“More than double the private sector’s Research and Development budget”

Private sector R&D = £18.4 billion⁴⁹

42 / 18.4 = 2.28

“Give each private sector worker a £1,600 pay rise”

Total private sector employment = 25,737,000⁵⁰

£42,000,000,000 / 25,737,000 = £1,632

“Add 25% to UK business investment”

UK business investment, Q3 2015 = £44.4 billion⁵¹

⁴⁹ ONS, UK Gross Domestic Expenditure on Research and Development, 2013, 20 March 2015, p. 6.

⁵⁰ ONS, “Employment up 177,000 compared with previous quarter”, Labour Market Statistics, November 2015 Release, 11 November 2015.

⁵¹ ONS, Business Investment, Quarter 3 (July to Sept) 2015 Provisional Results, Statistical Bulletin, 27 November 2015.



Appendix 3

The Pensions Insurance Corporation found that:

For revaluation in deferment, 70% of pension funds use CPI, and 30% use RPI;
For indexation in payment, 19% use CPI, 81% are stuck with RPI.⁵²

We know that 61% of all DB liabilities are in respect of active and deferred members.⁵³

Liabilities = 1690 bn
Of which deferred = $1690 \times 0.61 = 1030.9$ bn
Of which RPI = $1030.9 \times 0.3 = 309.27$ bn
Of which not = $1690 \times 0.39 = 659.1$ bn
Of which RPI = $659.1 \times 0.81 = 533.87$ bn

So **£843.14bn** of liabilities are uprated by RPI: almost exactly **50%**. This proportion will rise as more pensioners move from active or deferred to pensioner status: we assume by 1% p.a., as by 2046, when there will be almost no active or deferred pensioners (because it is about 20 years before the schemes finish on current demographic projections) the proportion will be 81%. We then hold it constant at 81% until 2063.

We can un-uprate the (RPI-uprated) unbundled liabilities from Appendix 1, using the OBR's long-term RPI forecast of 3.2% p.a.⁵⁴

The OBR estimates long-run RPI is 3.2%; its estimate of CPI is 2%.⁵⁵

Using these inflation estimates, we calculate that moving all pension commitments to CPI would save **£116 billion** over the life of the DB schemes.

⁵² Pension Insurance Corporation, "UK Final Salary Pension Schemes: Inflation Hedging and the Change in Indexation from RPI to CPI", December 2011, fig. 2, p. 6.

⁵³ PPF, The Purple Book 2015, 3 December, fig. 4.19, p.36.

⁵⁴ OBR, *Economic and Fiscal Outlook 2015*, 25 November 2015, chart 3.19.

⁵⁵ OBR, *Economic and Fiscal Outlook 2015*, 25 November 2015, chart 3.18.



Appendix 4

Historic Rate of Return can be calculated by finding the rate of return on each of the asset classes pension funds hold, and weighting by their share of the total asset pot.

Asset class	Historic Rate of Return	Share of total ⁵⁶
Equities	6.1%	37.425%
Gilts and Fixed Interest	0.5%	43.05%
Insurance Policies	-	0.5%
Cash and Deposits	-3.4%	5.5%
Property	5.7%	4.65%
Other	-	4.425%
Hedge Funds	4.2%	4.475%

So compounded annual rate of return = 2.79%.

⁵⁶ PPF, The Purple Book 2014, 4 October 2014, fig. 7.2, p. 57.



Appendix 5

The impact on present liabilities of HROR (replacing MTM) can be calculated by unbundling the £2.1 trillion over the next 50 years, undiscounting the liabilities (projecting numbers of members from past trends and assuming equal liability per life year), and then rediscounting using the new rate.

Past trend for number of members:

2010	11.97m
2011	11.96m
2012	11.73m
2013	11.43m
2014	11.1m
2015	10.97m ⁵⁷

So trend for total members = -0.225m p.a.

Sum of undiscounted life years

$$= 10.97/(0.995^0) + (10.97 - 0.225)/(0.995^1) + (10.97 - 0.45)/(0.995^2) + \dots + 0.17/(0.995^{48})$$

$$= 296.1m$$

Cost per undiscounted life year

$$\frac{\pounds 2.1 \text{ trillion}}{\text{Sum of undiscounted life years}}$$

$$= \pounds 7092$$

So the undiscounted liabilities can be unbundled: they run at around £78 billion in 2015, falling to £1.2 billion in their projected final year (2063). Then rediscounting by HROR (0.028% p.a.):

Sum of discounted liabilities (i.e. new present liability under HROR):

$$= 77.79(0.972^0) + 76.20(0.972^1) + 74.61(0.972^2) + \dots + 1.21(0.972^{48})$$

$$= \pounds 1.295 \text{ trillion.}$$

⁵⁷ PPF, The Purple Book [2010-2015], ch. 3 fig. 3.10.