

**DEMOGRAPHIC TRENDS AND THE FUTURE OF PENSIONS IN THE UK**

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**Abstract:** This article outlines the recommendations of the UK Pensions Commission, and the data and analysis on which they were based, including projections of demographic change, trends in private pension saving, and evolution of the state pension system. The Commission concluded that without reform, structural problems with UK pensions would lead to increasingly inadequate and inequitable provision in 15-20 years time. It recommended reforms which would lead to a more generous, more universal and less means-tested state system than would otherwise evolve, and the establishment of a low cost National Pension Savings Scheme, into which employees without good employer provision would automatically be enrolled. The proposals, now largely being implemented, imply eventual increases both in state spending on pensions as a share of national income and in State Pension Age, but accompanied by measures to facilitate later and more flexible retirement.

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*JEL Classifications:* J11, H55

## **1. INTRODUCTION**

The second report of the Pensions Commission (PC, 2005), of which the author was a member, was published in November 2005. This paper summarises the evidence and arguments behind the Commission's recommendations. A fundamental part of that evidence is the degree to which, in common with other European countries, the UK is an ageing society, with part of this driven not just by rising longevity, but also by rapidly increasing expectations of further longevity improvements in the future. Since the report was published, the British government has adopted the bulk of the Commission's recommendations, enacting reforms of the state pension system in the 2007 Pensions Act, and proposing reforms to private pension saving in a second Pensions Bill, passing through Parliament in 2008. At the same time, official projections of life expectancy have further increased.

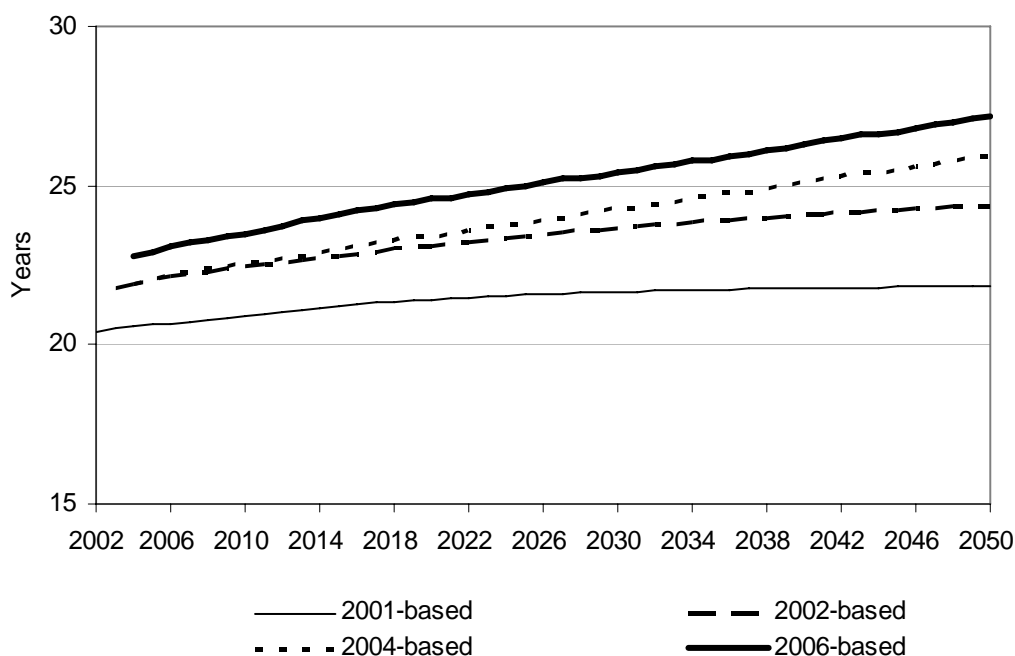
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## 2. DEMOGRAPHIC CHANGE

Figure 1 shows successive Government Actuary's Department (GAD) principal projections of female (cohort) life expectancy at the age of 65. In the 2001-based projections, available to the Commission when we started work in early 2003, this was projected to rise slowly from a little over 20 years now to just over 21 years for women reaching 65 in 2050. In the 2004-based projections, available when the Commission produced its main recommendations in 2005, the latter figure had risen by four years to nearly 26 years. As the figure shows, the 2006-based figures published two years later have increased this still further, to more than 27 years. For men reaching 65 in 2050, officially projected life expectancy is now 25 years, compared to only 19 years in the 2001-based projections. This view of the world for which we are planning pensions policy changed profoundly just while the Commission was sitting, and has continued to change since we reported.

**Figure 1: Women's cohort life expectancy at 65: Government Actuary's Department principal projections, UK**



Source: PC (2005), figure 1.38, updated to include 2006-based projections (GAD, 2007)

But, as such revisions themselves illustrate, such projections are inherently highly uncertain. To underline the difficulties of trying to look so far into the future, it is instructive to look back at the projections Beveridge used in drawing up his famous 1942 report, *Social Insurance and Allied Services*, summarised in Table 1. These suggested that just thirty years ahead, the proportion of the population aged over State Pension Age (60 for women and 65 for men) would have risen from 12 per cent in 1941 to 21 per cent by 1971. In fact, it was only 16 per cent in 1971 and will not – on current (2006-based) projections – reach 21 per cent above what will be the unified SPA, by then 66, until 2031.

**Table 1: 1942 and 2005 projections of age structure**

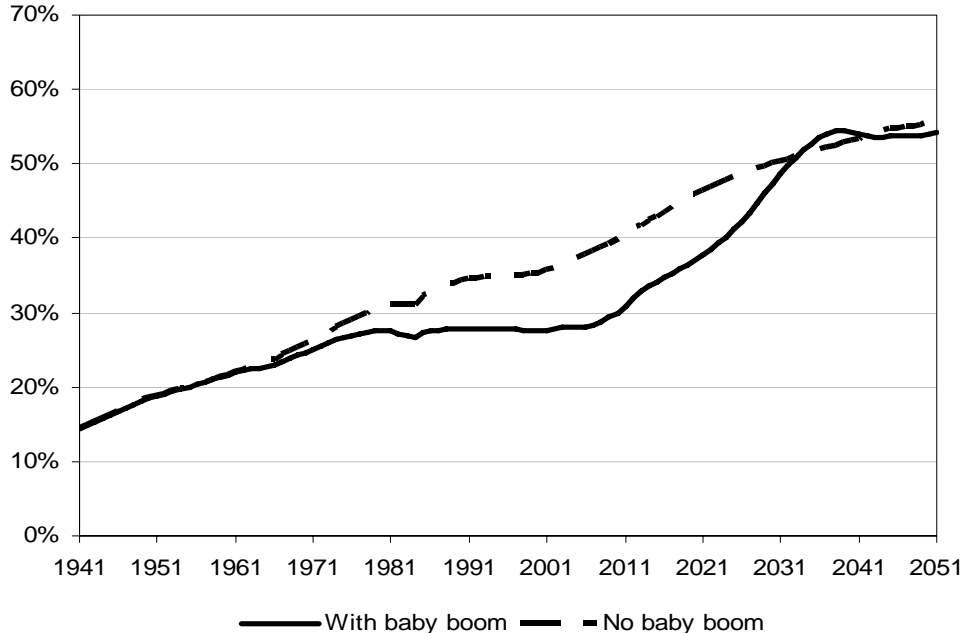
	Beveridge Report projections, 1942 (GB)		Actual (GB)	ONS principal projections, 2007 (UK)	
	1941	1971	1971	2006	2031
Under 15 (%)	20.6	16.5	23.9	17.7	16.8
15-SPA (%)	67.5	62.6	59.7	63.6	62.2
SPA and over (%)	12.0	20.6	16.4	18.7	21.0
Old age support ratio	5.6	3.0	3.6	3.3*	2.9*

\*Using population over 16.

Sources: Beveridge (1942); ONS (2007) and earlier Government Actuary’s Department equivalent for 1971 actual population. Unified SPA in 2031 set at 66 under 2007 Pensions Act; in earlier years SPA is 60 for women and 65 for men.

Beveridge and the Government Actuary who advised him did not foresee the post-War baby boom. As well as increasing life expectancy, the second factor driving the increase in the proportion of the population over 65 is the unwinding of the impact of the baby boom. As Figure 2 illustrates, what we now expect to see over the next 25 years is a rapid catch-up to where the old age dependency ratio would have been without the baby boom (the dashed line), if fertility rates had remained at their level of the 1930s, rather than rising above them until the mid-1970s as they actually did (the solid line). Over the next twenty years we will get back to where Beveridge might have thought we would have got to, having had a period of what has in some ways been one of false security.

**Figure 2: Impact of the 1940s-1960s baby boom on the old age dependency ratio, England**



Source: PC (2005), figure Ex.1. Population aged over 65 as proportion of those aged 18-64 (England)

As well as the need to prepare for increasing longevity, a second implication of this is therefore to expect the unexpected, future demographic structure is highly uncertain. Further life expectancy of 25 years for men reaching 65 in 2050 may indeed be the most reasonable projection we can make now, but some would still defend the logic of an effective “limit to life” which produced the

projection of 19 years a few years ago. On the other hand, others would point out that even the new higher projection implies quite a rapid slow-down in the rate of improvement of age-specific mortality which we have experienced for the last 25 years. If that trend in fact continued, male life expectancy at 65 could reach 30 years by 2050. Similarly, the Continuous Mortality Investigation of the actuarial profession has recently both increased its projections of life expectancy for current 65 year-olds, but also the range of uncertainty to 3.5 years around even this relatively short-term projection,<sup>1</sup> and the Pensions Regulator (2008) has warned private pension scheme trustees of the dangers of using earlier projections.

We thus have to work with best projections, but recognising that they could be wrong. In setting policy, it needs to become robust to such uncertainty – which is why as a Commission we would rather that policy had emerged around principles, such as that “state pension ages should gradually adjust to keep a fixed proportion of adult life in retirement” than to set definitive ages decades ahead that are harder to adapt as we move forwards into what is now a wide funnel of doubt.

### 3. PENSIONS IN AN AGEING SOCIETY

But the best estimates are that longevity is increasing and that the proportion of the population over a given age is increasing. In the Commission’s first report (PC, 2004) we said that this left us – and indeed any nation in this position – with four choices:

- Pensioners becoming poorer relative to the rest of the population;
- Later retirement;
- A greater amount of tax and/or National Insurance Contributions as a share of national income devoted to state pensions; or
- Greater savings for retirement.

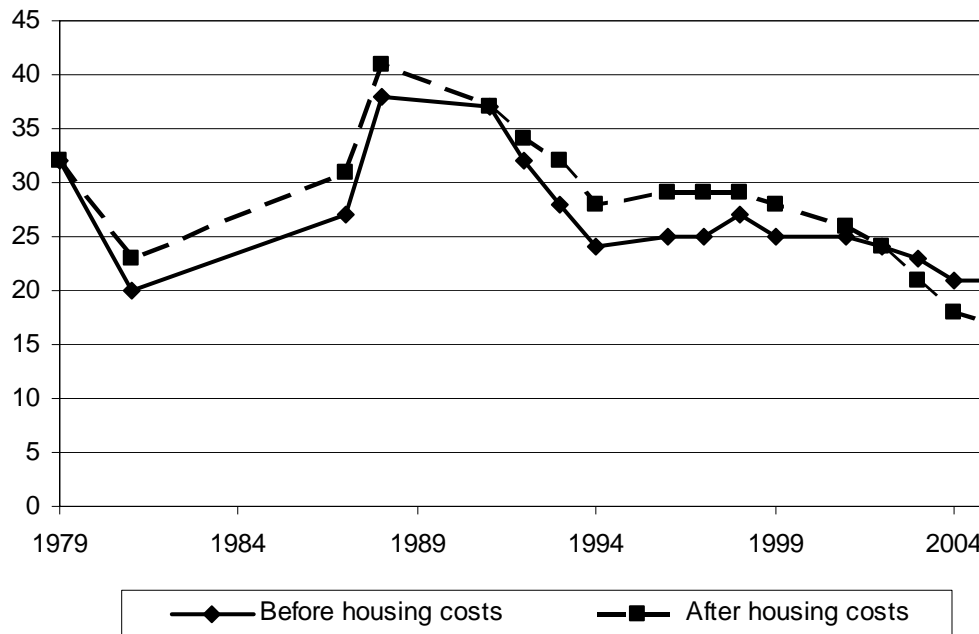
We argued that we found the first option unattractive. So did those giving evidence to us, and those surveyed in research for the Commission (PC, 2005, appendices B and D). When a national deliberative polling session was held by the Department for Work and Pensions around the Commission’s proposals in March 2006, at the end of the day’s discussions only 12 per cent of the more than one thousand participants thought that relatively poorer pensioners would have to be part of the solution to the UK’s pensions problems. By contrast, more than half thought that people would have to work longer, and 80 per cent or more that more taxes would have to be spent on pensions and that people would have to save more for their retirement (PC, 2006, figure 1). When asked how big a role the option of poorer pensioners should play in solving future pensions problems, participants awarded an average of 0.3 points out of ten to it, as opposed to around three points for each of the other options.

As Figure 3 shows, pensioner poverty (in relative terms) rose sharply in the UK in the 1980s, but since then it has fallen, and one of the present government’s major achievements has been to continue this reduction. Pensioner poverty in 2004-05 was about 8 percentage points lower than it would have been without the tax and benefit changes since 1997 (Sutherland, 2004).

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<sup>1</sup> For more detailed discussion, see PC (2005), Appendix E, based on a lecture given by Adair Turner at the CASS Business School in April 2005.

**Figure 3: Pensioners in poverty, UK, 1979 to 2005-06 (percentage with incomes below 60 per cent of population median income adjusted for family size)**



Source: Department for Work and Pensions (2007). Income adjustment uses OECD scale.

As a Commission we took it as read that any reforms should be based on protecting the gains this government has made towards the aim spelt out by the then Chancellor, now Prime Minister, Gordon Brown, at the 2002 Labour Party Conference of “ending pensioner poverty in our country.” We therefore assumed that the minimum income for pensioners set by what is now called the “Guarantee Credit” should not lose value relative to contemporary living standards. Future public spending could, of course, be lower if this assumption was relaxed, but only at the cost of increasing pensioner poverty.

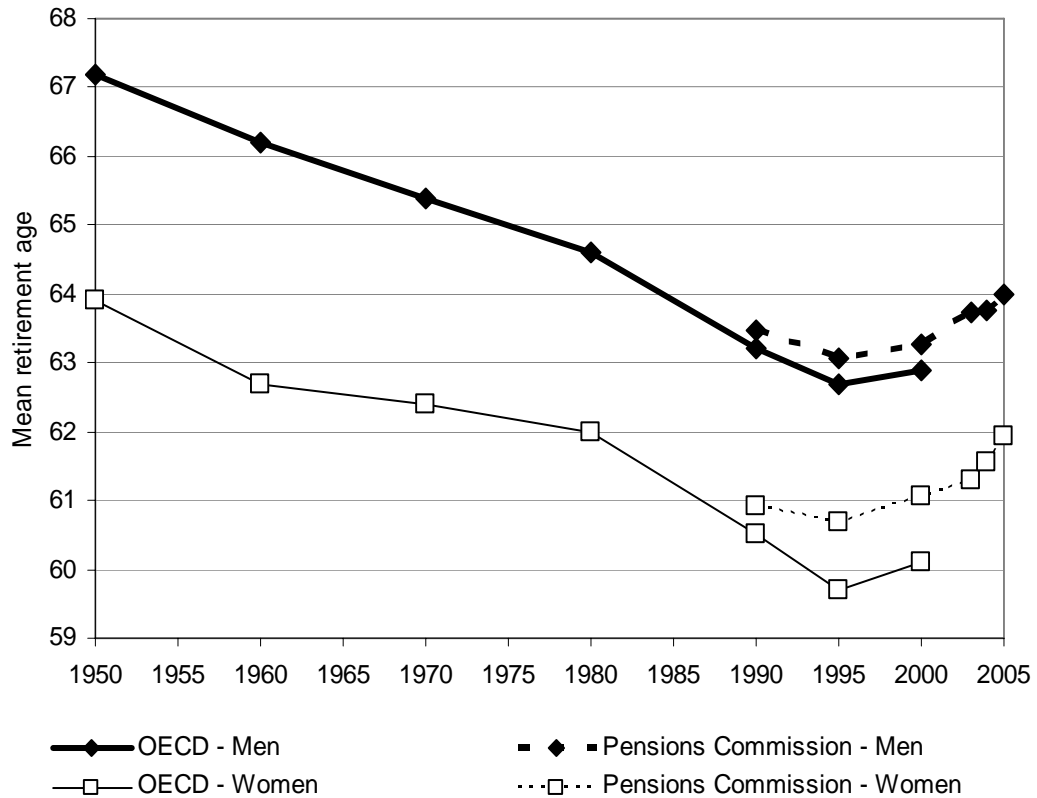
#### 4. RECENT TRENDS IN PROVISION FOR RETIREMENT

Our second report therefore spelt out the mix of the other three options which we thought desirable and achievable. But we did so against a background in which as a nation we have been reducing rather than increasing provision for future retirement incomes. Inflows into funded pension schemes remained at around 3.7 per cent of GDP between 1992 and 2002. They then increased, reaching 4.3 per cent of GDP in 2004 (PC, 2005, figure 1.14). However, of this about 0.7 per cent of GDP represented “catch-up” payments to protect the already promised rights of existing members of private sector “defined benefit” (DB) pension schemes, such as those related to final salaries. The underlying long run flow into funded pension saving is falling – eventually to perhaps just over 3 per cent of GDP (PC, 2005, figure 1.15), allowing for the way in which new employees (and even some existing employees) are being promised “defined contribution” (DC) pensions which are in fact much less generous than given in the past. In the private sector, membership of pension schemes is falling. In 2002-03, 10 million private sector employees contributed to non-state pensions, but 10.5 million did not. By 2004-05, contributors had fallen to under 9 million and non-contributors had risen to over 11.5 million (PC, 2006, figure 2).

At the same time, as discussed in more detail below, the state system had been set to evolve in a way which would mean much lower pensions in relation to earnings for typical earners than being enjoyed now by some of those recently retired and near retirement, who have got the best out of what was the State Earnings Related Pension Scheme (SERPS, now the state second pension).

Meanwhile, Figure 4 shows that effective ages of retirement have fallen considerably over the long term, although there has been a welcome recent reversal – with average effective retirement ages increased by a year in the ten years from 1995 to 2005. The long-run effect, combined with the increasing longevity discussed above, has been a rapid rise in the percentage of adult life spent in retirement from a quarter in the 1950s to a third for those retiring today (PC, 2005, figure 1.44).

**Figure 4: Trends in mean age at retirement, UK**



Source: PC (2005), figure 8.3.

But people are not aware that this is happening. Our own surveys confirmed earlier research (O'Brien, Fenn and Diacon, 2005) that younger cohorts simply do not anticipate the increase in their life expectancy that actuaries now predict. There is little difference between the life expectancy implied by people's anticipated retirement date and expected length of retirement between those in their twenties and those in their fifties (Table 2): people judge things by what happened to their grandparents and parents, not by actuarial projections. Some people simply do not believe the projections of increasing life expectancy when put in front of them. The combination of projections of increased future needs, but public lack of knowledge about their scale, makes policy-making very hard.

**Table 2: Perceptions and projections of life expectancy**

Current age	Men			Women		
	Omnibus survey 2005 perceptions	GAD 2004-based projections	Gap	Omnibus survey 2005 perceptions	GAD 2004-based projections	Gap
16-25	81.1	88.5	-7.4	80.7	91.0	-10.3
26-35	81.4	87.6	-6.2	81.4	90.1	-8.7
36-45	82.2	86.7	-4.5	82.6	89.2	-6.6
46-55	81.9	85.9	-4.0	81.3	88.4	-7.1
56-65	81.7	85.1	-3.4	83.6	87.7	-4.1

Source: PC (2005), appendix D, figure D.36. Omnibus survey results based on sum of individual expectations of retirement age and length of retirement. GAD projections based on assumption of survival to 65 on basis that answers for expected length of retirement would be given assuming survival to retirement age.

## 5. THE OUTLOOK WITHOUT REFORM

We argued that putting all of these trends together, looking 15-20 years ahead, in the absence of change, some retirees would be as well off in relative terms as their equivalents today – including private sector employees who remained as members of generous defined benefit schemes as they closed to new members, and those with good careers in the public sector. If the minimum income for pensioners continued to be linked to average earnings, as in recent years, the same relative protection would apply to many of the poorest pensioners as well.

But there are other groups that already have poor pension provision, such as those with interrupted paid work careers, including many women, and those with low to median earnings working for small and medium-sized organisations. Beyond these, many others, expecting to be as well-off as their equivalent predecessors, are in for a nasty surprise – either not knowing what is coming or hoping “it will be all right on the night” and that “they won’t let you starve will they?”, as Taylor-Gooby (2005) summed up views of his respondents. Indeed, if we did do nothing and “muddled through”, it is highly likely that political pressure would eventually have forced an ad hoc increase in state pensions. But such a muddle-through option was unlikely to have been either fair or economically optimal by comparison with what we can achieve by planning ahead now.

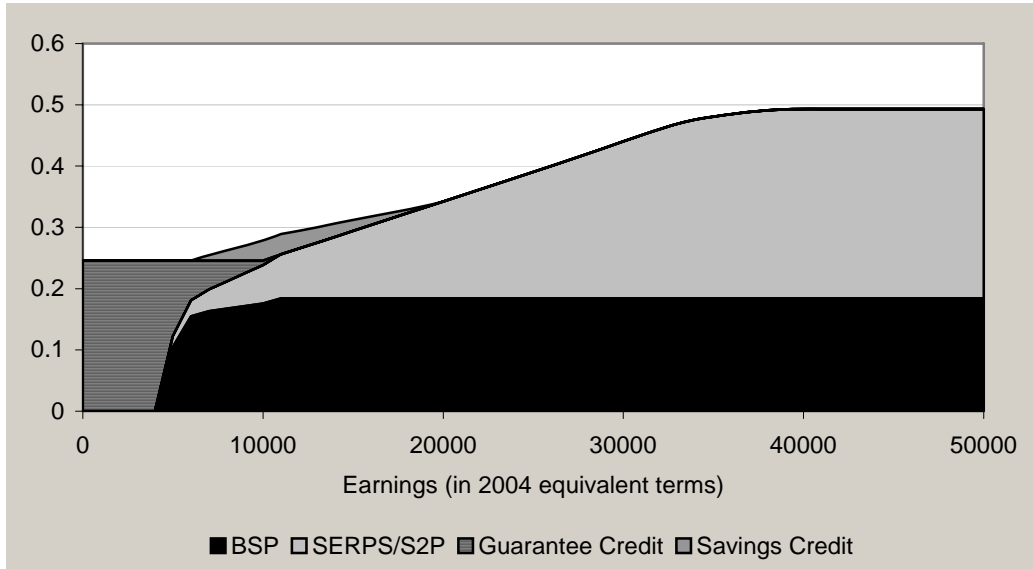
## 6. STATE PENSIONS

Until recently, governments have hoped that the private sector will take more of the strain, keeping public spending in check by linking the basic state pension (BSP) to prices rather than earnings. At the same time, the present government had reformed the state second pension (S2P) and introduced the means-tested Pension Credit to help low earners and protect the poorest pensioners.

It is instructive to see how the state system would have evolved if it had carried on without reform. Figure 5 shows the pension that someone retiring in 2005 would receive at that point from the state if they had spent a full paid work career at different earnings levels and had made no private pension saving. Figure 6 shows the same for someone retiring in 2050 under the pre-reform system, all in today’s earnings terms. What the figures show is that in effect we would have moved from a partly earnings-related state pension system to a complex flat-rate system. Indeed, carried to its logical conclusion the system would have become somewhat more generous to low-earning non-savers, but it would have been much less generous to those with around average earnings with some private pension. For instance, someone with median earnings or above paying the equivalent of 10 per cent or more of earnings above the income tax threshold into a private pension would receive only the basic and second pensions from the state (PC, 2005, figure 4.10). These would

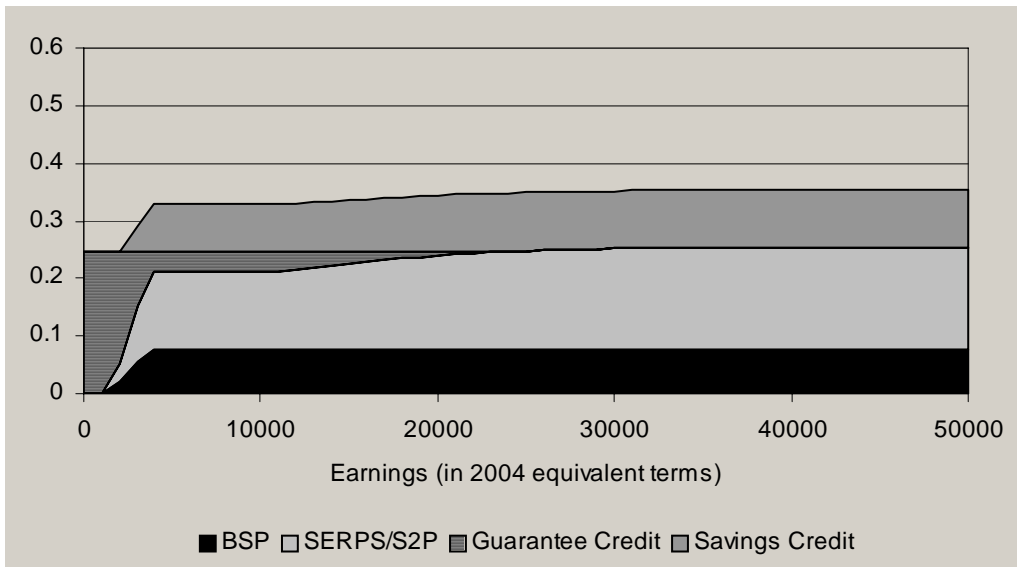
together have been worth around 25 per cent of median earnings, compared to the 35-50 per cent of median earnings their equivalents would receive today.

**Figure 5: State pension income at retirement, retiring in 2005, assuming no private saving (% of median earnings)**



Source: PC (2005), figure 4.7.

**Figure 6: State pension income at retirement under system before 2007 Pensions Act, retiring in 2050, assuming no private saving (% of median earnings)**



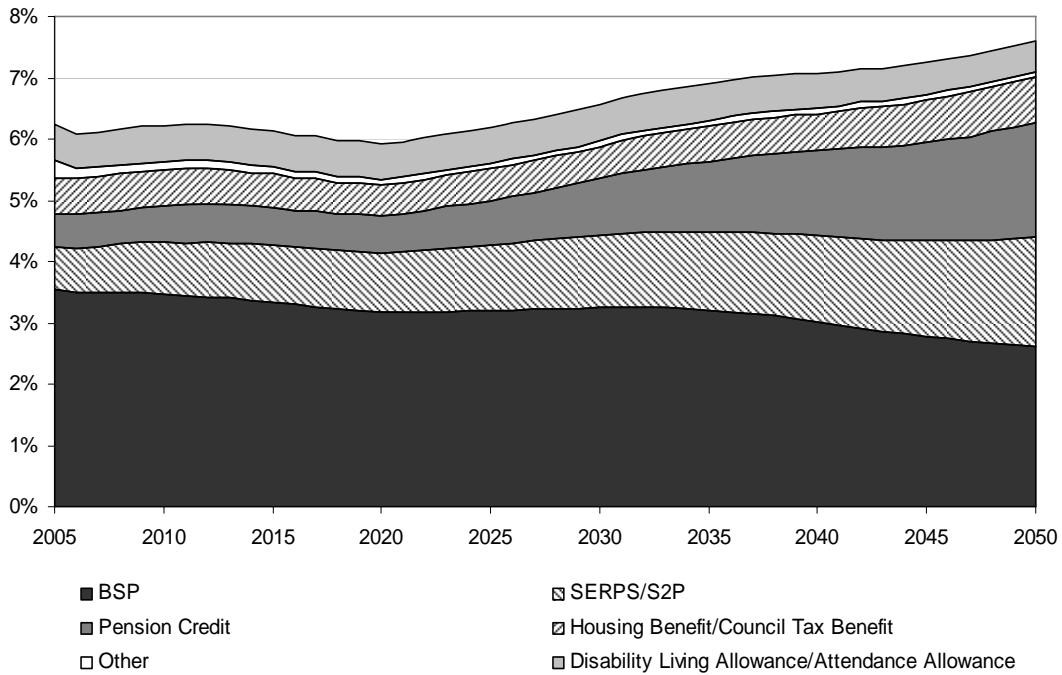
Source: PC (2005), figure 4.7.

Despite those reductions in its generosity for individuals in particular circumstances, if the state system had continued to evolve in this way, its cost would still have risen as a share of GDP. Figure 7 shows the Commission's projection, based on the Department for Work and Pensions (DWP) model, Pensim 2. Care should, of course, be used in interpreting any such projections, based on just one set of a multiplicity of assumptions about future demography, labour markets,



and savings behaviour. However, they give a useful base for examining the implications of changes to policy. Spending on state pensions and other cash benefits for those over state pension age would have risen in this base case from 6.2 per cent of GDP in 2005 to 7.6 per cent of GDP in 2050. This increase is hardly surprising given the (2004-based) projection that there would be 6 million more people over 65 by 2050.

**Figure 7: Public spending on pensioner benefits as % of GDP under system before 2007 Pensions Act (if then current indexation arrangements continued indefinitely)**



Source: PC (2005, figure 1.19) based on results from DWP's Pensim 2 model.

As the figure shows, within the rising total a roughly constant proportion of national income would be spent on the national insurance-based basic and second state pensions together, but means-tested top-ups would have increased, the cost of Pension Credit quadrupling from 0.5 to 2 per cent of GDP. This reflects the way in which, as other state and private sources of pension income fell, an increasing proportion of pensioners would become entitled to means-tested assistance through the Pension Credit. With the base case assumptions used in Figure 7, the proportion of all single or couple pensioners subject to means-testing through Pension Credit would have risen steadily from about 40 per cent now to 75 per cent by 2050 (PC, 2005, figure 6.5). Note that in this world, even if we had done away with the new part of Pension Credit, the Savings Credit, the 40 per cent of pensioners would – unless they increased saving in the face of this wider prospective means-testing – have ended up needing the Guarantee Credit (what used to be called Income Support or National Assistance) just to get their incomes up to the State's minimum, unless that minimum itself was reduced, at the cost of increased pensioner poverty. This compares with just under 25 per cent in this position today.

The complexity of this potential system, and the widespread belief that potential means-testing might mean a low return on pension saving, were both barriers to private saving increasing in the way governments had hoped for.

But there are inherent barriers too. For those with low- to middle-incomes saving individually outside large occupational schemes, costs are high. Annual Management Charges (AMCs) for "stakeholder pensions" sold to individuals are now capped at 1.5 per cent of accumulated savings

for the first ten years, and then to 1 per cent. This gives an average cost even for someone contributing for a long period and with relatively high earnings of around 1.3 per cent per annum, a sizeable slice of a long run real return that might reasonably be expected to be between 3-4 per cent. At such charges – despite being much lower than charged on personal pensions in the past – people’s pension pots are likely to end up 20-25 per cent smaller than if they had the 0.2-0.3 per cent costs enjoyed by large occupational schemes. This does not necessarily reflect excessive profit-making by the insurance companies which sell such pensions: selling and running individual pensions involve large lump sum costs per policy which absorb a high proportion of small savings (PC, 2005, figure 1.25). Indeed, at the stakeholder capped level of costs, trying to sell pensions to those with below median earnings is not an attractive commercial proposition for the providers.

## 7. OBJECTIVES OF PENSION POLICY

So even if the state system became simpler, less means-tested and more stable we did not believe that voluntary pension provision will revive by itself. Does that mean we should compel people to save a certain amount, e.g. to achieve the at least two-thirds replacement of earnings most<sup>2</sup> say they want?

People are wary about this. The focus groups conducted for the Commission suggested that people both wanted to “have to save”, but not to be “compelled” (PC, 2005, appendix D1). And if you do compel people, how much should you do so, given their widely varying situations, views of adequate income, housing assets and perhaps future inheritances?

This was the challenge facing the Commission. It was easy to have sympathy with one of Beveridge’s conclusions:

“The problem of the nature and extent of the provision to be made for old age is the most important, and in some ways the most difficult, of all the problems of social security” (1942, para. 233).

And as a Commission we took one of his principles as read:

“Any Plan of Social Security worthy of its name must ensure that every citizen ... can claim as of right when he is past work an income adequate to maintain him ... a pension on retirement from work which is enough for subsistence, even though the pensioner has no other resources” (1942, para. 239).

But crucially we agreed with a second of his fundamental principles:

“... social security must be achieved by cooperation between the State and the individual... The State in organising security should not stifle incentive, opportunity, responsibility; in establishing a national minimum, it should leave room and encouragement for voluntary action by each individual to provide more than that minimum for himself and his family” (1942, para. 9).

In fact we went further than this partnership between individual and state. The original lecture on which this paper is based was delivered on the fiftieth anniversary of Richard Titmuss’s famous lecture on “the social division of welfare”, which drew attention to the importance of “occupational welfare” (Titmuss, 2001). The role of employers in pension provision is still crucial today – but is very varied and in retreat, even though employer pension contributions are a highly tax-efficient way of paying people. Our approach echoed not just Beveridge, but also Lloyd George’s famous “9 pence for 4 pence” offer from the combined role of individual, employer and state.

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<sup>2</sup> PC (2005), appendix D, figures D.28 and D.29.

But where we parted company with Beveridge was on the role of the state. Beveridge's view was of a non-redistributive system – flat rate contributions (the “stamp”) for flat rate benefits. As Glennerster and Evans (1994) have pointed out, this was the undoing of the original Beveridge scheme. There were never enough resources to get people above the subsistence minimum if National Insurance was funded by a kind of poll tax. And provision beyond the minimum was patchy and unequal in terms of what replacement rates people could achieve.

There are varied views on this. At one end, some have argued that the State's role should or can *only* be that of poverty relief. At the other, people argue that it is the state which should organise and provide earnings-replacement for all or nearly all, as indeed has been the case in many continental European countries.

But if the State's role stops at poverty relief, many will end up discovering themselves under-provided for or will pay very high costs to get what they want. On the other hand, the UK tried earnings-replacement when the State Earnings Related Pension Scheme (SERPS, now transmuted into the state second pension) was introduced in 1978, but we never really accepted the cost. We paid for it by reducing the cost of the flat-rate BSP through the price-linking of the last twenty-five years (Hills, 2004). The low-paid, women, and the self-employed were the losers. The Labour government's initial reforms – and the move to the complex flat rate system described above – could be seen as ways of trying to wind back this clock. Taking the longer view, in three generations we would have returned to something not so far from the flat rate system based around the basic state pension established following the Beveridge report, but achieved in a much more complicated way.

At their heart, the Commission's conclusions accepted the arguments put to us that the state should concentrate its *redistributive* power on providing a minimum platform on which people can build. But its role does not stop there. We argued that the state should:

- *Ensure* that all people are kept out of poverty in retirement;
- *Encourage* people to achieve at least a base-load of earnings-related pension provision; and
- *Enable* all people to save for a pension at low cost.

To achieve this we proposed three linked directions for reform:

- Establishing a low cost National Pension Saving Scheme (NPSS), with employees automatically enrolled into either this or good quality existing employer schemes. Individuals would have the right to opt out, but also to make additional contributions beyond the automatic minimum.
- Underpinning this with a state pension reform which would deliver more generous, more universal, less means-tested and ultimately simpler state pensions. Over the long-term this would require *both* some increase in the percentage of GDP devoted to state pensions *and* an increase in the State Pension Age (SPA).
- As a corollary of a rising SPA, the state should facilitate later and more flexible retirement, and make sure that implementation of reform is sensitive to differences in life expectancy by socio-economic group.

The first two of these are in large part now being implemented by the government; action of the third has been rather slower.

## 8. STATE SYSTEM REFORM PROPOSALS

It is simplest to start with proposals for the state system, as these set the framework for what extra would be needed to achieve any given target retirement income from the NPSS or existing occupational schemes. There are many different ways of achieving the kind of flat-rate platform we described. But if, first, a system is to achieve an adequate platform on which people can build without means-testing spreading still further, and second, to have at its heart the ability of women to have an independent income in retirement (a very different assumption from that made by Beveridge), demography implies that in the long-run both the SPA and public spending will have to rise. How much each does so is a trade off. The lower and upper limits of the “proposed range for debate” in Figure 8 below show the range of public spending needed to deliver a pension on an independent basis which would match the amount currently given by the Guarantee Credit for a single pensioner (plus the cost of extra items such as disability and housing benefits).

In the short-term there are of course gaps in provision, but many people are currently reaching retirement with good rights from SERPS/state second pension and private defined benefit pensions. Indeed, the generation recently retired or now nearing retirement has, taken as a whole, better pension rights than their predecessors enjoyed or their successors are likely to enjoy. To achieve structural reform, the case for higher public spending than now comes after 2020. However, as Figure 7 shows, the already planned increase in women’s SPA to 65 between 2010 and 2020 would have led to a fall in spending as a share of GDP. This created some latitude for changes that would begin to build long-term reforms within roughly constant spending as a share of GDP up to 2020.

In dealing with increasing longevity, there is a strong argument that equity between generations implies that the SPA should rise in proportion to life expectancy in some way. Indeed, if we were only dealing with increased longevity, this could allow fixed spending as a share of GDP. But we are not – we are now facing the impact of the fertility declines after the baby boom (Figure 2). Putting all of the cost of this on the near-retirement generation by increasing SPA far faster than life expectancy would seem unfair. This leaves the range shown in Figure 8.

The least aggressive approach would have been to say that once SPAs for men and women are equalised at 65 in 2020, the proportions of adult life spent in retirement should be kept constant. At that point the Government Actuary Department’s 2004-based principal projections implied average life expectancy at 65 for men and women together of 22 years. Noting that that is half of adult life since 21, one could, for instance, have set a “two for one” rule – two years after 21 before SPA for every expected year after it. That kind of rule might have taken the SPA to 67 by 2050 under the 2004-based projections – but with the implication that spending would need to reach around 8 per cent of GDP compared to 6.2 per cent in 2005.

At the other end, it is hard to imagine a reform would have been politically acceptable if it implied that the expected length of life after pension age actually shrank from where it is now. That would put a limit – on the same projections – of about 69 by 2050, which would allow required public spending to be somewhat lower, at around 7½ per cent of GDP.

This is the kind of structural trade-off that faced us. Note that while this delivered the uncomfortable message that both pension ages and spending on pensioner benefits as a share of national income would need to rise after 2020, in both cases the rise is gradual. The range means for instance that today’s 50 year-olds, men and women, would still have an SPA of 65 as already expected, but today’s 40 year-olds could expect something around one year higher, at 66.

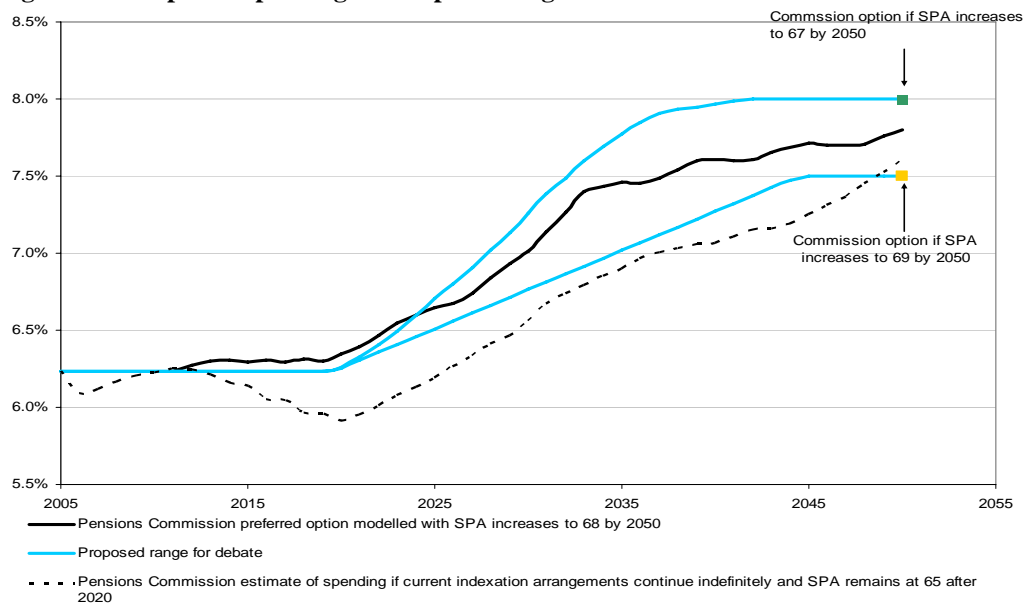
There are several different ways one could design a more flat-rate, less means-tested state pension that achieved Beveridge’s “room and encouragement for voluntary action” for individuals to provide more than the minimum. Our second report discussed in detail the pros and cons of some alternatives, but in the space available it is only possible to sketch out the option which after

detailed analysis we believed offered the best way through the competing criteria. We suggested that, faced with the huge complexity of where we start from, it is actually simpler to evolve from where we are, than to face what turn out to be huge transitional complexities of a “big bang” introduction of a new system. What we proposed as our preferred way forward had five elements:

- Building on earlier reforms to the state system, accelerating the evolution of the State Second Pension to become flat-rate, but with improved credits for those caring for children or for elderly or disabled people.
- Indexing the Basic State Pension to average earnings growth rather than prices over the long term so that it stopped losing relative value, and moving accruals of rights to it onto a universal, residence-based basis (as opposed to the current contributory basis).
- Maintaining the progress in reducing pensioner poverty achieved by the introduction of Pension Credit, but limit the spread of means-testing by freezing the real value of the maximum Savings Credit (the part paid to pensioners with income just above Guarantee Credit level).
- Gradually increasing State Pension Age after 2020 in line with increasing life expectancy to reach between 67 and 69 by 2050.
- Ideally, making payments of the basic state pension on a universal basis to all individuals mid-way through retirement, say aged over 75 (to cope with the way in which older generations of women in particular were able only to build up partial rights to it).

If all the elements of that except the last (which has short-term, rather than long-term costs) were implemented, the costs (subject to the usual health warnings about such projections) are shown in Figure 8 by comparison with both current spending and those that would arise from the way the system is currently evolving (as in Figure 7). The solid line shows their trajectory if the rise in SPA after 2020 reached 68 by 2050 for today’s 23-year-olds, and the dots showing where it would reach by then on rules implying more or less rapid change in the SPA. Such an increase in spending would, of course, be painful for tomorrow’s taxpayers, but it would be to a level below that which many other countries have already reached, even before their less favourable demography kicks in.

**Figure 8: The public spending – state pension age trade-off**



Source: PC (2005, figure Ex. 5). Estimates of spending under current indexing with fixed SPA relate to state pensions system before 2007 Pensions Act reforms.

Such a reform would in combination with our other proposals allow, instead of an increase in the numbers affected by means-testing through Pension Credit, a decrease, both in the proportion of pensioners affected at all from today's levels of 40 per cent to around one third, and in the numbers requiring to claim Guarantee Credit to make their income up to the State's minimum from 25 per cent today to around 15 per cent (PC, 2005, figure 6.42).

It also means that instead of a reduction in the replacement rate from non-means-tested pensions the state would be offering a typical earner in mid-retirement from its current level, it would be slightly higher (PC, 2005, figures 6.4 and 6.19). Low-paid workers and those with interrupted paid work careers would be better off than their equivalents today, particularly if they had even a small level of savings.

## 9. THE 2007 PENSIONS ACT

After some debate – as much within the government as outside it – the basic framework of these proposals was accepted (DWP, 2006a), and reforms to the state system were implemented, with all-party support, in the 2007 Pensions Act. In particular:

- The basic pension will return to being linked to average earnings, rather than prices from 2012 (rather than the 2010 proposed by the Commission and “subject to resources being available”).
- The minimum income given by the Guarantee Credit will continue to be linked to earnings.
- Accruals to the state second pension will move to being on a flat-rate basis, as we recommended.
- State pension age (unified for men and women at 65 in 2010) will rise to 66 in 2026 and 68 by 2046, close to the top of the Commission's range illustrated in Figure 8.
- The rules under which women in particular qualify for the basic state pension will be changed from 2010 (so that, for instance, only 30 years of contributions or credited contributions will be needed to get a full basic pension).

## 10. ENCOURAGING SAVINGS AND THE NATIONAL PENSION SAVINGS SCHEME

Crucially, reforms of this kind to the state system mean that many fewer people will lose the benefit of their pension saving through reduced Pension Credit, than would have done if means-testing had spread in the way that the pre-reform system would have implied. This gives the underpinning needed for the second leg of the Commission's proposals – the message that, except for those in very unusual circumstances, saving for retirement is a good deal, and so enrolment in the National Pensions Saving Scheme is an offer you would not want to refuse.

It also sets the challenge for how much might be needed. As we set out in our second report, the wide variations in people's circumstances and preferences means that we are a little cautious in the aims we set for the state to use the power of inertia in *strongly encouraging* people to build up a base-load of earnings-replacement retirement income through a system of automatic enrolment into the NPSS. For instance, if 45 per cent were set as the minimum base-load replacement rate to be aimed at for a median earner, the state system we suggested would get two-thirds of the way there. Another 15 per cent would be needed from private saving on top. To get that, someone starting saving at 30 would need contributions equal to about 6 per cent of total gross pay.<sup>3</sup> We

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<sup>3</sup> For sensitivity of this estimate, see PC (2005), figure 6.29. The figures in the text assume a real rate of return on assets of 3.5 per cent, retirement age of 67, and annual management charges for the NPSS of 0.3 per cent of accumulated assets.

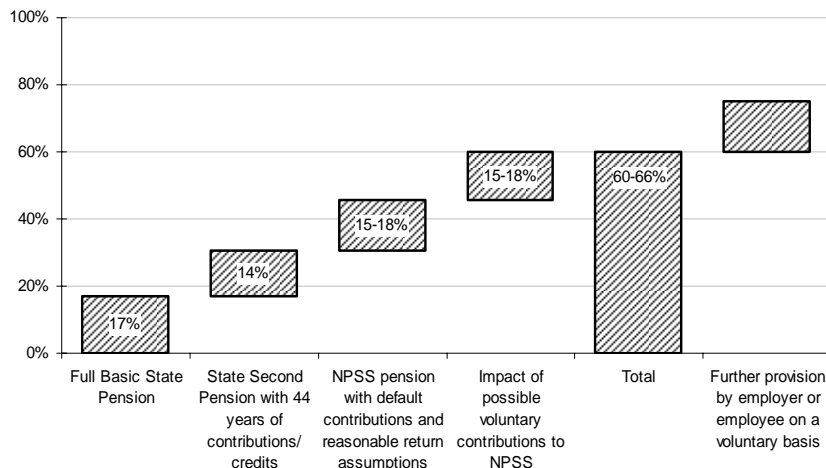
therefore suggested the following structure of default contributions into the NPSS, into which everyone would be automatically enrolled, unless their employer was automatically enrolling them into a good quality occupational scheme:

- Minimum default contributions set at about 8 per cent of earnings between the income tax threshold (currently just over £5,000) and an upper limit (equivalent, say, to the current upper earnings limit for National Insurance Contributions).
- Half of this, 4 per cent, would come from the employee's net pay.
- 1 per cent (roughly) would come (for a basic rate taxpayer) from tax relief.
- There would be a compulsory minimum employer contribution of 3 per cent.

Depending on participation rates, this last element would have an aggregate cost (after tax and National Insurance Contribution relief) of about 0.6 per cent of labour costs. It would allow the message that for the default contributions there would be a pound for pound match of the employee's net contributions from net pay. It would also help to ensure that the danger of people ending up with low rates of return on their own savings as a result of means-testing was minimised, which would be crucial to allowing the introduction of automatic enrolment into the NPSS (or any equivalent system) without the need for expensive individual advice about participation.<sup>4</sup>

But we could also use the NPSS as a way of enabling people to save more at low cost through extra voluntary contributions to it – we suggested up to twice the default amount for a median earner. This would allow them to get close to the two-thirds replacement rate people around median earnings tend to set as their objective. Put together, the state reforms and the NPSS proposals would build up in the way shown in Figure 9. For someone who spent the bulk of their working age life in the UK either in paid work or in caring activities the basic and second state pensions together would deliver at the point of retirement at the State Pension Age around 30 per cent of median earnings. Depending on the proportion of this time that they remained in the automatic enrolment part of the system, a median earner would receive a further 15-18 per cent of median earnings from the automatic enrolment part of the NPSS, with the option to double this.

**Figure 9: Pension income as percentage of earnings for median earner at point of retirement under Pensions Commission proposals**



Source: PC (2005, figure Ex. 7).

<sup>4</sup> For more detailed discussion of the issues around the compulsory employer matching contribution, see PC (2006), section 4.

The funds in the NPSS would be invested at each individual's discretion – but generally in bulk-bought funds of different kinds at the low management costs this kind of system would allow. People would be building up their own asset – potential funds worth up to £160,000 (relative to contemporary incomes) for someone on median earnings saving at double the default rate.

The lead times involved for the scheme to reach maturity are of course long, but on reasonable assumptions by 2050 it would be producing the 0.6 per cent of GDP needed to offset the likely fall in private pension savings we foresaw (PC, 2005, figure 6.39). The *outflow* from it as income to pensioners could, depending on the rate of additional contributions and participation reach between 0.6-1.0 per cent of GDP in 2050, then rising quickly to between 0.8 and 1.3 per cent of GDP by 2060 (PC, 2005, appendix F, figure F42).

Again, the arguments for this have been accepted by government (DWP, 2006a, b) and – under the label of “personal accounts” rather than NPSS – are being legislated for, to take effect from 2012, though a second Pensions Bill, passing through Parliament in 2008.

## 11. DISTRIBUTIONAL IMPACT

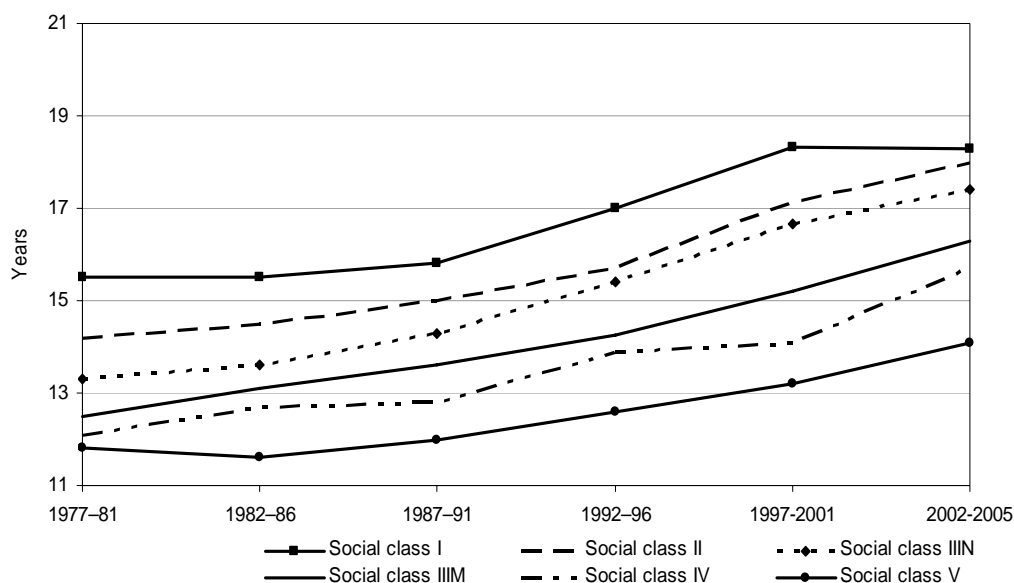
Put together, we argued that this combination represented a progressive package involving the painful realities of later retirement, higher revenues needed for state provision in the long run, and greater private saving, but offering a better deal to women, carers and the low-paid than is now on offer. Key elements in achieving this include:

- Personal accounts open up low-cost pension saving to those previously excluded from it because their contributions would be too low.
- The very lowest income pensioners (those who currently fail to claim the Guarantee Credit) would gain from more automatic rights to earnings-linked state pensions.
- State pension spending would increasingly be concentrated on *individual* rights to a flat-rate minimum:
  - The indexation of the basic state pension to earnings would halt decline in its relative value.
  - Future accruals to rights to the basic pension would be on a more universal basis
  - Credits for carers towards the state second pension would be improved.
- As a result there would be reduced reliance on benefits based on a family means-test, rather than the increase in reliance which would occur under existing arrangements.

But to set alongside this, there is a further key issue. The trends in life expectancy discussed at the start of the paper are of course averages. The UK has shamefully large differences in life expectancy by social class. Earlier figures, such those as in Figure 1, show *cohort* life expectancies, allowing for anticipated future improvements in age-specific mortality. By contrast the recent trends in life expectancies by social class shown in Figure 10 are for *period* life expectancies at 65 – how long people would live in a “Groundhog Day” world with their future lives trapped, for instance, in the first years of this century. They therefore understate how long we would expect each cohort actually to live as they move through real time. But the *differences* between social classes are a reasonable guide – between four and five years between the least and most favoured social groups of men. And while all social groups have gained life expectancy since the 1970s, the gaps show no consistent sign of narrowing. As a corollary the *proportionate* – but not absolute – impact of an increase in State Pension Age on, for instance, manual workers would be greater than that on professional workers. While this should not be a reason to avoid the inevitability of state pension ages rising with life expectancy to create the sustainable system that is in the interests of all who will depend on it, it means it is essential that any reform taken as a whole has to be progressive in its impact.



**Figure 10: Trends in period life expectancy at 65 by social class: men**



Source: PC (2005), figure 1.41 updated to include 2002-2005 figures (ONS, 2007).

It also means that as a corollary of pension reform, it has to be a very high priority to address the causes of such inequalities, crucially doing so *earlier* in people's working lives. It is, after all, those currently aged 40 or under who would be affected by our proposals for a gradual increase in SPA. But long-run pension reforms also need to be accompanied by an agenda that facilitates later working and gradual, rather than sudden, moves into retirement. We discuss these in more detail in Chapter 8 of our second report, but potential elements we suggested included:

- Allowing earlier claim of Guarantee Credit for those with low incomes than the gradually increasing SPA (for instance, the age for claiming Guarantee Credit could remain at 65 after 2020 as the SPA rose).
- Examining an option for lower pension age for the basic pension and a higher for the state second pension.
- Remove the default retirement age of 65 from anti-age discrimination legislation
- Widening public knowledge of advantages of deferring claiming state pensions (the amount paid is now increased in perpetuity by 10 per cent for each year of deferral) and allowing people to claim part of their state pension but defer the rest as in Sweden, for instance to support continued part-time work.
- Giving incentives to employers to hire workers above SPA, for instance through reduced employer National Insurance Contributions.

The first two of these suggestions are not part of the reform package being implemented. However, the others remain possibilities.

## 12. CONCLUSION

Our report did not talk about an immediate crisis in pensioner incomes. There are gaps and inequities, of course, which many would want to rectify if they could find the resources to do so. But it was looking 15 to 20 years ahead that we saw major structural deficiencies and inequities. Pension reforms have long lead times and take a long time to work their way through. The Green Paper exploring equalisation of men and women's pension ages was published in 1991. The

changes it led to start in 2010. The last widow benefiting from the pensions given for veterans of the US civil war in the nineteenth century died only recently. To make a difference a generation ahead, it was necessary not to delay.

The last two years have represented a once-in-a-generation opportunity to build a consensus around urgently-needed pension reform in the UK. Both government and opposition are to be congratulated for having grasped the nettles of reform involving such unpalatable choices, with only long-term pay-offs. The challenge now will be in implementation and making a success of the reforms, and doing so in a way that simultaneously gives workers and savers some certainty about the environment into which they are making their decisions, but also retains some flexibility to deal with a world that may not turn out quite the way that we currently expect.

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## VOTE OF THANKS PROPOSED BY DR. SHANE WHELAN, UNIVERSITY COLLEGE DUBLIN.

### *Introduction*

It gives me pleasure to propose a vote of thank to Professor Hills for such a succinct overview of proposals, and the rationale behind them, to reform the pension system in the UK. The thanks extend to Adair Turner and Jeannie Drake, his two colleagues on the Pensions Commission, for their years of deliberations recorded in the three Pension Commission's Reports, and summarised for us today. Professor Hills's paper, and the Commission's work that underlies it, is another landmark in the centuries-old debate on how industrialised societies should cater for their aged. Specifically, the paper shows how the system in the UK is delivering to the aged, how that can be expected to develop without any policy action, identifies the key problems that will emerge and suggest a framework that, put in place now, can be expected to mitigate most of those problems.

The paper informs the debate in Ireland too, where a full review of the Irish pension system by the Pensions Board was requested back in February 2005 by the Minister for Social and Family Affairs. Two substantial reports were subsequently prepared under the aegis of the Pensions Board, *National Pensions Review* (2005) and, at the further request of the Minister, a supplemental report on a mandatory pension system, *Special Savings for Retirement* (2006). These reports deal more with possible policy measures and less with the principles and rationale underlying the proposed reforms. Given the overall similarities in the central suggestion made in *Special Savings for Retirement* (2006) and that presented here by Professor Hills, the (UK) Pensions Commission's work may be used to give the theoretical rationale behind the current main proposal for reform in Ireland.

### *UK's and Ireland's Pension Systems Compared*

Indeed, the pensions systems in the UK and in Ireland currently have a very similar structural form. Each pension system has two aims: to relieve poverty in the age and to smooth income over adult lifetime. For each aim there is a distinct structure: the State pension is simply a flat-rate pension to relieve poverty and occupational/private pensions are generally designed to give a degree of income smoothing. Each structure has a distinct method of financing: the State pension is financed on a pay-as-you-go basis (social contract) while occupational/private pensions are pre-funded with taxation incentives (financial contract). The differing financing methods entail that State pensions can be improved immediately while improvements in private/occupational pensions need to be pre-funded over decades. Finally, the risks to the two parallel structures are quite distinct: demographic change and a breakdown of social cohesion is the key risk to the social contract while investment risk is the key risk to the financial contract now that methods to reduce or transfer such risk, such as the defined benefit scheme or with profits policies, are unpopular.

It is no accident that the UK and Ireland have such similar pension systems, as the structures were originally put in place in the early part of the twentieth century when Ireland was part of the United Kingdom. Charles Booth's paper, *Enumeration and Classification of Paupers, and State Pensions for the Aged*, read to the Royal Statistical Society in 1891, articulates well the pragmatism that underlies the design of the current State pension common to our countries. Booth's ideas were developed and broadened into the concept of a social contract in Beveridge (1942), where the state's role was widened to offer financial security to the citizen in return for services and contributions from the citizen to the state. The Finance Act 1921 supported the voluntary establishment of occupational pension schemes by giving tax concessions on contributions and investment income, a concession that has been widened to include all private pension provision.

However natural the pensions system in these isles appears to us, it is an oddity in the context of pensions systems globally. With the notable exceptions of Canada and New Zealand, all other developed nations have in place a compulsory, more earnings-related scheme, following the

example of Germany in 1889. State pensions (outside of public servants) in the UK and Ireland are amongst the least generous in the developed world, even lower than US Social Security. The voluntary provision made by just over half of the workers in Ireland to a private or occupational pension (CSO (2004)) gives a patchy and incomplete supplement of the State pension. Hughes & Watson (2005), in a survey of how the current system in Ireland delivers to the aged, highlight that the State pension makes up, by a considerable margin, the majority of income for the vast majority of the retired.

#### *Problem with Individual Retirement Accounts*

The proposal by Professor Hills and his colleagues summarized here of supplementing the flat-rate State pension by the proceeds of retirement accounts investing contributions linked to earnings in stock market securities is functionally the same as the 'Special Savings Accounts for Retirement' proposed for mandated savings by the Pensions Board. In fact, starting in Chile in 1981 and supported by the World Bank (World Bank (1994, 2005)), such retirement accounts investing in stock market securities are the most popular design of state systems in the developing world. However, despite their popularity, there is an inherent flaw at the heart of these designs. Put briefly, the contribution levels to such accounts are too low to support the level of pension targeted or, equivalently, the costings of such schemes assume that the pension saver will bear considerable investment risk in their retirement accounts, will be highly rewarded for that risk, and that risk will have no adverse consequences.

Early in the deliberations of the Pensions Commission, this assumption played on the mind of Professor Hills and his colleagues: "But the shift of investment risk to individuals of modest income is of significant concern." (*Pensions Commission First Report (2004)*, p.104). In Ireland, the Pensions Board had similar reservations: "Board members, apart from the representative of the Minister for Finance, believe that the proposal for State retirement support [investment guarantees] should be pursued vigorously, because of the potential benefits to supplementary pension provision." (*Pensions Board (2005)*, p.99). Yet, in the event, such concerns were sidelined. I would like to bring these concerns to the fore again and illustrate the financial significance of the investment risk tacitly assumed.

#### *Investment Risk: Misplaced and Mispriced?*

Consider Table 1. The table sets out the real returns, real salary increases, investment and administration expenses and the resultant net return above salary escalation assumed for different investment strategies in estimating pension proceeds from a given level of contributions, as employed in both the *National Pensions Review (2005)* and *Special Savings for Retirement (2006)*. These assumptions are very similar to the financial assumptions used in the Pensions Commission costings (*Pensions Commission First Report (2004)*, Appendix C (p.80)) except for administration expenses which the Pensions Commission estimated at between 0.3% and 0.8% per annum.

**Table 1: Real Returns, Expenses and Wage Escalation in Accumulation Phase [Based on assumptions in National Pensions Review (2005)]**

Investment Strategy	Real Return	Investing Expenses	Administration Expenses	Real Salary Increase	Net Return above Salary Escalation
	% p.a.	% p.a.	% p.a.	% p.a.	% p.a.
100% Equities	6.00	0.65	1.5	2.0	+1.85
100% Government Bonds	1.75	0.10	1.5	2.0	-1.85
100% Index-linked Bonds	1.75	0.10	1.5	2.0	-1.85
75% Equities, 25% Bonds	4.94	0.51	1.5	2.0	+0.93
50% Equities, 50% Bonds	3.88	0.38	1.5	2.0	0.00

Table 1 shows how the investment strategy pursued in the individual retirement account can lead to a difference in the expected return above salary escalation of anywhere between -1.85% per annum and +1.85% per annum. The significance of this variation of possible returns on the ultimate pension is set out in Figure 1. Figure 1 graphs the contribution rate, as a percentage of salary over a 40 year working life, to provide an fixed salary-related pension in retirement for 20 years, as a function as of the assumed investment return above salary increases before retirement. (Note that we have assumed a 0% rate of return above wage escalation after expenses in the drawdown period.)

**Figure 1: Level Contribution Rate as a % of Salary over working life of 40 years to provide a pension of half salary in retirement for 20 years (increasing with salary increases), under various assumed net rates of return above wage escalation**

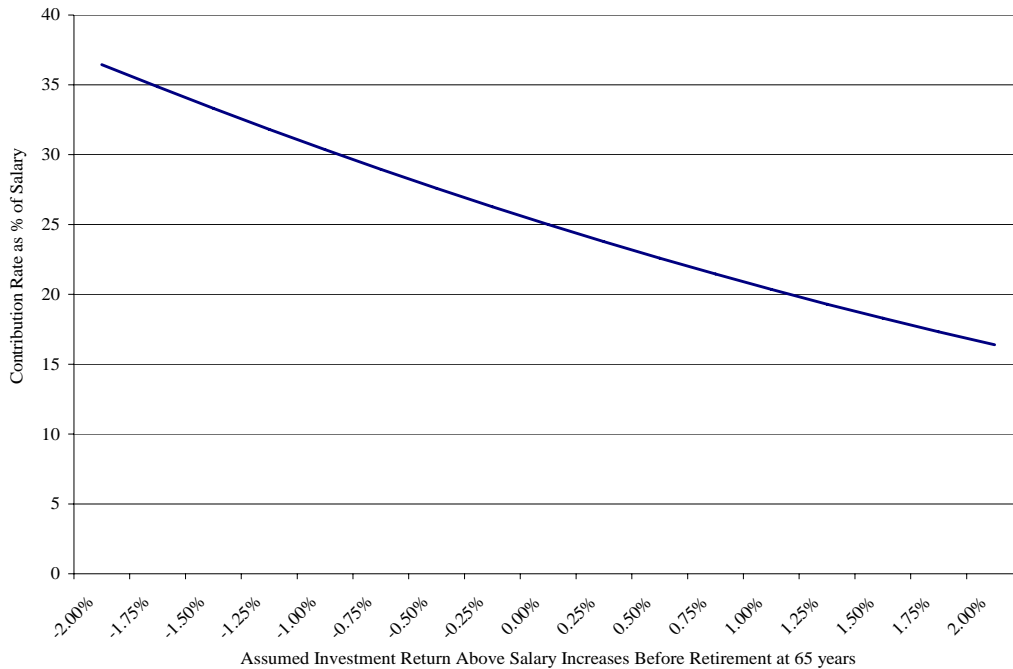


Figure 1 highlights the sensitivity of the contribution rate to the assumed net investment return above salary escalation prior to retirement. In particular, note that the contribution rate is 17% of salary per annum to provide a pension of half salary at a positive 1.85% rate of return above wage escalation while at a negative 1.85%, the contribution rate more than doubles to 35%. Accordingly, on the assumptions underlying the costings, safe index-linked investments of suitable duration to match the target pension will deliver a pension just less than half of the pension delivered by investing all in equities. The assumptions underlying the appropriate investment strategy or, equivalently, the degree of investment risk appropriate for pension savers, is thus very material to the expected pension.

So what is the appropriate level of investment risk for such pension savers? I contend that, for modest and mandated savings, those investments that produce the most transparent and dependable pension – that is, the least risk investments in this context – are the only suitable investments from the point of view of both the majority of individual savers and the State. The aim of national pension policy is to provide a certain minimum pension for all. It is simply not consistent with that aim to mandate savings at a certain level – whether by ‘auto-enrolment’ or by full compulsion – and then recommend or allow investment in high-risk investments.

However, the projections of the UK Pensions Commission and Ireland’s Pension Board anticipate the risk premium from investing in risky assets in estimating the ultimate pension from such retirement accounts, while ignoring any possible consequences of risks borne. This produces forecasts inconsistent with market values, which naturally allow for the market price of risk. (In fact, the whole point of the capital markets is to price and transfer risk.) The upshot is that the expected pensions to be delivered by individual retirement accounts are far too high – the investment risk borne is mispriced and, to my mind, the investment risk is misplaced in such mandated or quasi-mandated retirement accounts.

It is somewhat ironic to reflect that an underlying reason why pension reform is now particularly opportune is due to the recent decline in popularity of the defined benefit design for pension schemes in the UK and Ireland, and their projected complete demise outside of the public sector. One of the causes for the decline – a cause at least as influential as the well-documented unanticipated increase in longevity – is due to a realisation of the financial significance on the sponsoring employer of the investment risk inherent in their high equity investment strategies (Whelan (2003, 2007a)). The proposed solution of retirement accounts investing in risky assets is simply replacing one system, failing because of its reliance on the equity risk premium, with another with the same inherent flaw.

#### *Superiority of Sustainable Pay-as-You-Go over Individual Retirement Accounts investing in low risk investments*

Whether you agree with the above argument or not, let us assume for the moment that modest and mandated pension savings should be invested in least risk investments. Now the least risk investments for pension savers in Ireland and the UK are government guaranteed index-linked stock of suitable duration. But a market in government guaranteed index-linked stock is just the state committing future taxation revenues to meet its financial obligations under such instruments. The current pay-as-you-go (PAYG) pension system is the state committing future taxation revenues to meet its social obligation. So, on a look-through basis, a defined contribution arrangement investing in index-linked stock is almost the same as a PAYG system. Indeed, in a sustainable PAYG system the return to contributors can be shown to be the same as the gross expected return from such index-linked stock (see Whelan (2007b)). However, the PAYG system has lower administration costs than the individual retirement account model. Estimates vary in the cost savings between the two systems, with Professor Hills and his colleagues putting the savings as being equivalent to about 0.5% per annum of the value of the accumulated contributions in the accumulation phase while the Pensions Board (2005, p. 226-7) estimates that administration costs saved to be of the order of 1% per annum. Extra costs of these magnitudes in the pre-retirement

phase reduce the ultimate pension by between 10% and 20%, based on the same assumptions underlying Figure 1. Following this line of argument through to its conclusion, suggests that developing a sustainable PAYG system can deliver better value for money to contributors because of economies of scale than the proposed system based on individual retirement accounts.

### *Conclusion*

I conclude by thanking Professor Hills and his colleagues on the Pensions Commission. His paper informs the debate as much in Ireland as the UK. Given the integration of our labour markets, it would be ideal if a similar solution be found to the common challenge. While the debate on the form of the pension system for the 21<sup>st</sup> century is much earlier in Ireland than the UK, I have little confidence in that outcome. The State pension is deeply popular in Ireland (Ó Gráda (2002)), and, on the basis of arguments summarized here, I believe it to be demonstrably the most efficient vehicle to deliver a citizen's basic pension in the future.

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