

Private Pension Arrangements and Retirement in Britain^{*}

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Abstract

This paper looks at the policy debate surrounding private pensions and retirement patterns in the UK. Recent increases in longevity have led not only to increased pressures in public pensions but also to corresponding increases in the importance of private pensions in the UK and changes in the way in which they are structured. We consider the economic implications of these changes, and in particular the increased importance of defined contribution plans. In addition, we discuss the prospects for future trends in retirement ages.

I. Introduction

The rapid ageing of populations around the world has made it crucial to design a welfare system that will encourage those who can to provide for their own retirement while helping those who reach the end of their working lives with insufficient wealth to sustain an acceptable standard of living. Needless to say, these objectives frequently – and perhaps inherently – conflict. In dealing as best they can with the inevitable trade-offs, policymakers need to have three important sustainability questions in mind. First, is the financial support offered to pensioners by the state in retirement sustainable in terms of the burden it places on the working population, who

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pick up most of the bill in the form of taxation? Second, are the mechanisms by which the private financial sector helps people save for retirement sustainable in their apportionment of risk between employers and employees? Third, is the way in which the state and private systems interact sustainable in the sense that the combination promises people a reasonable degree of financial security without creating unduly powerful disincentives for them to work and save?

In this paper, we focus on the second and third of these questions and present some relevant up-to-date empirical evidence on aspects of private pension arrangements and retirement patterns. In addition, we discuss briefly the implications for the future of private pension and retirement saving and the possible associated trends in future labour market patterns. Amongst other things, we argue that:

- Individuals as well as governments and actuaries underestimate the extent of increasing life expectancy which could have severe implications for private savings.
- Targeting of state benefits and increased importance of individual provision mean that there will be a much greater role for private pensions and savings in retirement for future generations of retirees.
- Because the basic state pension is so low and the majority of those with private pensions will have relinquished many of their rights to the State Earnings-Related Pension Scheme (SERPS), the implications of the shift from defined benefit (DB) to defined contribution (DC) pension arrangements in the UK are particularly important. In the USA, the fallback position is a public pension. In the UK for those with private plans and who are not entitled to means-tested benefits, it is just the flat-rate basic pension – around 10 per cent of average earnings by 2025.
- For today's older workers, there are relatively large differences in individuals' expected chances of being in work at age 60 across groups with different types of pension arrangements. If future generations follow the same patterns and the reliance on DC schemes were to expand heavily with the pressure on final-salary DB schemes, then working lives may well be prolonged.

II. Demographic background: increasing late-life life expectancy

The population ageing that is observed around the world is caused by declining fertility rates coupled with increasing life expectancy. Whilst life expectancy at birth has increased steadily through the twentieth century, the most striking trend is perhaps the period of rapid increases in late-life life

FIGURE 1

Additional years life expectancy: UK men and women aged 65

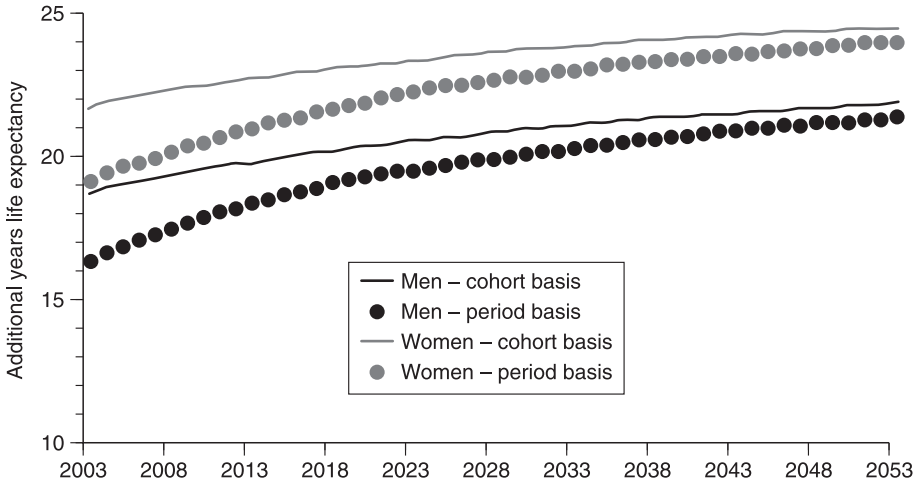
Source: Government Actuary's Department.

expectancy over the last 40 years. Figure 1 shows that, having increased by slightly more than one year over the previous century, life expectancy at age 65 for men in the UK has increased by almost one year per decade since 1960. The trend for women has been of a steadily increasing rate over the period since 1920.

Even these trends are underestimates of what might happen going forward. The life tables underlying these calculations do not account for possible future cohort effects in life expectancy. Put simply, life tables represent a summary statistic about who died in the past year, which is not always a good predictor of how long those currently alive might expect to live. If there are future cohort effects in life expectancy, then today's 65-year-olds could live even longer, on average, than the 16 and 19 years that are currently predicted for men and women respectively.

The importance of such effects cannot be overstated. Figure 2 shows the difference in projections for late-life life expectancy between those taking the cross-sectional 'period' life tables as a base (in accordance with the trends presented in Figure 1) and life expectancies, recently published by the Government Actuary's Department, that are computed on a 'cohort' basis – allowing for the fact that a 65-year-old who lives to older ages will benefit from future reductions in mortality at that later age (in comparison with the mortality rates of those at that age today). Over the next 10 years or so, the differences are substantial, with this measure of life expectancy being three years greater for both men and women.

FIGURE 2
Life expectancy at age 65: cohort versus period basis



Source: Government Actuary's Department.

Yet even these numbers, being based on forecasts of future mortality rates and therefore somewhat controversial, could change. It is certainly the case that past actuarial forecasts have systematically underestimated longevity. For example, in 2000, the Government Actuary's Department predicted that there would be 16.1 million people aged 65 and over in 2051. Just two years later, it revised this prediction up to 16.8 million – an increase of 4.3 per cent. With health improvements likely through the dramatic drop in smoking, these cohort increases may well continue, and it remains to be seen how well the expected cohort effects will capture future trends. More is being learnt about the fundamental factors driving mortality outcomes (including the importance of early-life factors), and if such factors were built into cohort mortality projections, then we might expect prediction to improve.

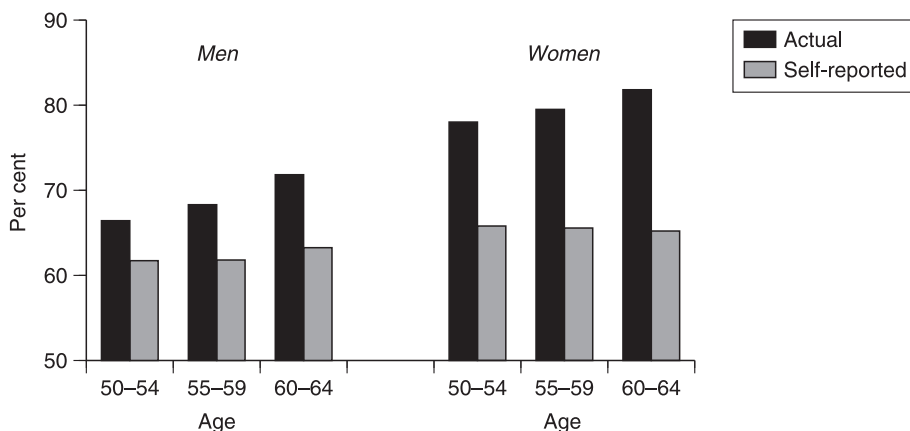
As is well documented, these increasing life expectancies are putting huge pressure on the various financial systems aimed at providing resources to individuals in retirement, since the aggregate demographics mean that if work patterns remain unchanged, the ratio of contributors to beneficiaries in any unfunded system will fall. What Figure 1 shows, however, is that the period of time over which individuals in a funded system will have to provide for their own retirement has risen particularly sharply in recent years. This, in turn, is important for two reasons. First, many of the funded arrangements currently in place for the older working population, such as occupational pensions, were set up prior to this increase in late-life life expectancy, and so some adjustment will have been necessary. Second,

depending on how individuals form their expectations of how long they will live, we are now in a period where it is quite possible that individual longevity expectations have been slow to catch up with reality. For example, someone forming their expectations based on observing their parents' longevity could, on average, be out by around two or three years – an underestimation of the length of life after retirement of around 15–20 per cent.

The extent to which individuals are correctly anticipating their increased longevity is clearly a fundamental that will affect preferences for retirement saving. New data from the 2002 English Longitudinal Study of Ageing (ELSA) provide some evidence on this, for older individuals at least, for the first time. Figure 3 reports average self-reported chances of living to 75 by five-year age band and gender, for men and women between the ages of 50 and 64. In this form, we can directly compare self-reported probabilities and the 'true' chances implied by the life tables published by the Government Actuary's Department. The graph clearly shows that, on average, both men and women are currently underestimating the chances of living to 75. In addition, women report chances only slightly greater than those of men. As a result, women underestimate their longevity chances by considerably more than men – the 'true' probability of reaching age 75 for a 60- to 64-year-old woman is greater than 80 per cent, but, on average, 60- to 64-year-old ELSA respondents report an expected chance of just 65 per cent.

FIGURE 3

Percentage chances of living to age 75, by age and gender



Note: 'Actual' chances of living to 65 computed from Government Actuary's Department (period basis) life tables.

Source: Calculations by Banks, Emmerson and Oldfield (2004) from 2002 ELSA data.

These data say that those retiring in the next decade or so are underestimating the chances of their retirement lasting 10 years or more.¹ Even the most simple economic model would suggest that such individuals may well not save ‘enough’, would not necessarily choose to annuitise their wealth and, if they did annuitise, might choose a nominal not a real annuity. All of these are features we observe in economic data (see Banks, Blundell and Tanner (1998) and Finkelstein and Poterba (2002)).²

Unanticipated increases in longevity put pressure on all forms of pension systems, whether public or private, unfunded or funded. Within private funded systems, however, there is an extra twist – the degree to which perceptions of these longevity improvements are built into the expectations of future generations of retirees will at least partially determine the particular ways in which such systems might respond to such pressures. The unique combination of forms of pension arrangements in Britain means that these upward revisions in longevity, and general ageing of the population, play out in a relatively complex way. We now move on to discuss this in more detail.

III. Economic background 1: private pensions in the UK

As is discussed frequently elsewhere (see, for example, Attanasio et al. (2004)), reforms to public pensions in the UK have led to projections of costs that appear financially sustainable (in comparison with other systems, at least) but this has come at the expense of three other important changes. First, the universal flat-rate (or ‘first-tier’) pension will be far less generous in the future, as a result of indexation to prices rather than earnings. Second, a large majority of individuals are now ‘contracted out’ of the state system as far as their earnings-related ‘second-tier’ arrangements are concerned. Finally, the remaining state second-tier pension arrangements are more heavily targeted on lower-income individuals through greater means testing.³

This increased targeting of state benefits coupled with the increased importance of individual rather than state provision means that, although the

¹This conclusion clearly suggests many avenues for further research. In particular, future work will look at life expectancy differences by socio-economic position and by pension status. Only with regard to the former, however, will we be able to look at the expectational errors, since the ‘true’ survival probabilities broken down by pension status are not, to our knowledge, known at present in the UK.

²Although not reported here, older ELSA respondents (aged 75 and over) tend to over-report the chances of living to older ages relative to the ‘truth’. At the most basic level, this could be a simple explanation for low levels of consumption out of income – another fact commonly observed – amongst the oldest old.

³The particular issues surrounding the equity–efficiency trade-off associated with this movement towards increased means testing in public pensions in the UK are discussed elsewhere (see Disney and Emmerson (this issue)).

costs of the state system are not projected to rise rapidly, there will be a much greater role for private arrangements in determining incomes in retirement for future generations of retirees. With state pension income (including the state second pension) forecast to decline to under 21 per cent of average earnings in 2060, sources of pensioner income other than public pensions will need to rise substantially if pensioners in future are not to be worse off relative to the working-age population then.

In what follows, we discuss the trends in private pension arrangements that have been occurring over the same period, focusing in particular on the movement from defined benefit to defined contribution pension arrangements. In DB schemes, benefits are set by a formula that involves years of service or tenure and some measure of final salary. In contrast, a DC plan is characterised by contributions being made into a fund that is invested, with retirement income being determined by the annuity value of the accrued fund at the point of retirement.

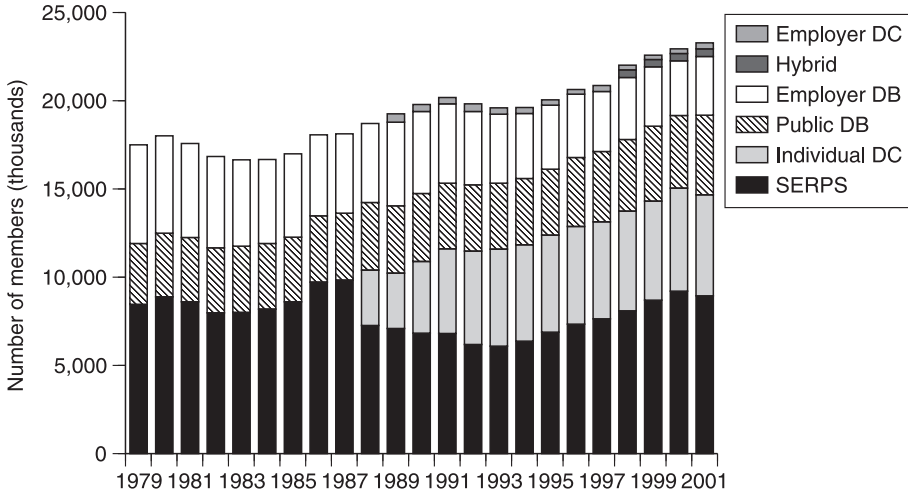
Private pension arrangements, and their associated trends, are particularly important in the UK for one key reason that distinguishes the UK from most other countries. As mentioned above, the UK has a system in which most of those with private pensions are ‘contracted out’ of the earnings-related part of the state pension – their contributions to the State Earnings-Related Pension Scheme are redirected to their private plan and they forgo the rights to future SERPS benefits. Hence an individual who has been contracted out for their entire working life will only receive the (flat-rate) basic state pension from the state, which will be as low as 10 per cent of average earnings by 2025.⁴

Private pension provision is now extensive in the UK, and the vast majority of employees with private pensions are contracted out of SERPS. The extent of private provision has been growing along with the increase in DC arrangements. Figure 4 uses Department for Work and Pensions (DWP) estimates of second-tier pension arrangements and shows that over two-thirds of employees have private as opposed to state second-tier pension provision. This represents around 90 per cent of those with any private pensions (the remainder being third-tier contracted-in schemes).

Until 1988, private pension saving in Britain was mainly in the form of employer-based final-salary schemes or public-sector final-salary (DB) schemes (with the exception being the self-employed, who are not shown in

⁴It should be noted that the regulation of contracted-out DB plans means that they are ‘guaranteed’ to deliver as much as SERPS, so there is a sense in which retirement income will not fall to such a level. And with the recent introduction of the means-tested pension credit guarantee, there is now an income floor for the retired provided by the benefit system, below which no one will fall, so this lower level is essentially guaranteed for those with DC pensions too. Although the level of this floor into the future has not been set, the current ‘aspiration’ is that it will be raised in line with average earnings.

FIGURE 4
Second-tier pension arrangements in Britain



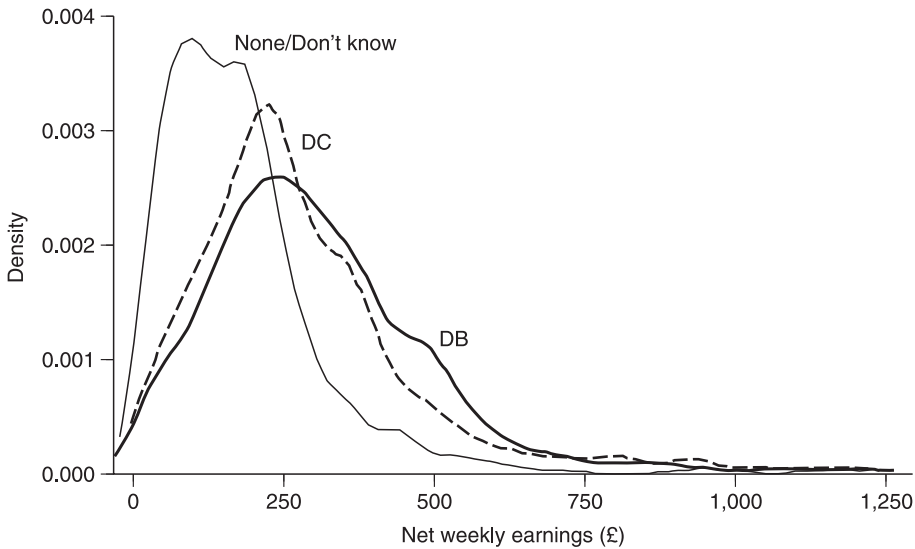
Source: Department for Work and Pensions, 2004.

Figure 4). Since 1988, however, all individuals have been able to contract out into private DC pension schemes, and more than one-third of employees with private pensions are now in such schemes. Figure 4 shows that almost all of this increase in DC provision came in the first few years following the introduction of DC plans – since then, the increase in individual DC arrangements, along with the rise of hybrid and DC arrangements for employer schemes, has been relatively small.⁵

Given the nature of redistribution in SERPS, it is no surprise that there are systematic differences between those contracted out of and those contracted into the state system. Such differences must be borne in mind when interpreting data on outcomes for those with the various types of private pension compared with those with public provision. Most notably, and in accordance with the findings of other work in the UK (see Blundell, Meghir and Smith (2004) or Banks and Casanova (2003)), we would expect pension type to vary by the level of economic resources. This is investigated in Figure 5, where we use 2002 ELSA data to present non-parametric density estimates for the distribution of income for each of three groups of employees, defined by whether they are currently contributing to DC or DB

⁵The relative stability in private arrangements since 1993 deserves further examination, since it seems that the rising number of employees has been reflected in an increasing number of employees in SERPS rather than an increasing number with private pensions. It would be particularly useful to look at these trends on a cohort basis to pick up trends amongst younger cohorts entering the labour market and taking their first pension decisions.

FIGURE 5

Distribution of current earnings, by current pension type

Source: Authors' calculations from 2002 ELSA data.

private pensions or to no private pension at all. The graph shows the DB pension members to be substantially richer than their DC counterparts, who are in turn richer than those not currently contributing to a private scheme.

It is particularly important to think about the implications of the shift from DB to DC arrangements in the UK because of the contracted-out nature of the system. Any changes in incentives will be acutely felt by individuals, precisely because the basic state pension will be so low and the majority of those with private pensions will have relinquished many of their rights to SERPS. Indeed, because the basic state pension is flat-rate and entitlement is based on age alone, arguably the only really important incentives determining retirement outcomes will be those in individuals' private pensions. This contrasts, for example, with a system such as that in the USA, where public pensions continue to be important for all individuals, regardless of the nature or extent of other pension arrangements.

When it comes to the fundamental economic characteristics of a pension – the sharing of risks and returns – a DB scheme could, in principle, be set up to mimic the fundamental characteristics of a DC scheme (see Bodie, Marcus and Merton (1988) or Diamond (2002)). In this sense, drawing the distinction between DB and DC is somewhat of an artificial characterisation of the situation. In practice, however, private pension schemes in the UK and throughout the world have key differences in the incentives and risks that are faced by individuals, which are strongly associated with whether the

plan is DB or DC in nature. Much debate has focused on the transfer of investment risk to the individual (see Poterba (2004), for example) and on the issue of the incidence of job (or, more correctly, pension) tenure risk.⁶

Less discussed, but perhaps equally important, are issues surrounding the insurance of longevity risks. As with the above risks (and indeed with all risks), it is ultimately the individuals in the pension plans who bear this risk, but the speed with which contribution or benefit formulae in DB plans are adjusted will determine which cohorts are affected. One of the crucial differences between typical DB and DC plans that is relevant here, however, is the point in the life cycle at which these risks are insured under the two types of arrangements. This in turn will determine the amount of any adverse selection and the associated costs of insuring the risk itself.

A typical DB plan sets the annuity rate at the point when members join the scheme, which, for the sake of argument, we can assume to be around age 30, and only has limited flexibility in the degree to which the timing or nature of the implicit annuity can be varied. In contrast, an individual (in the UK) with a DC plan will need to annuitise their fund somewhere between the ages of 50 and 75, by which time some uncertainty about length of life may already have been resolved. The implications of this are explored in a theoretical context by Brugiavini (1993), who constructs a three-period model and shows that such a scenario (particularly when combined with the monitoring of earnings that is implicit in an employer DB plan) could be thought of as one rationale for employer DB plans.

To investigate the potential magnitude of differential adverse selection effects across plan type, one needs to know about how individuals' expectations of their own longevity evolve over their lifetime. Banks, Blundell and Emmerson (2004) show that, if anything, older individuals in 2001 were more likely to report 'don't know' in response to a question on the likelihood of living to age 75, although it is also true that a higher fraction said that they are 'very likely' to survive until age 75. But cross-sectional evidence is only of limited use. Evidence from ageing studies on individuals aged 50-plus suggests that survival probabilities are correlated with previous health conditions in the expected way (Hurd and McGarry, 1995; Banks, Emmerson and Oldfield, 2004) and that such subjective survival probabilities are revised in the light of incident health events (Hurd and McGarry, 2002). This would suggest that uncertainty does begin to resolve itself when such events begin to occur (or not occur) as individuals go through their mid-50s and 60s, and we might therefore expect similar

⁶Increases in men's labour market mobility will have reduced the value of DB pension schemes. This could have been one of the key driving forces behind the move towards DC pension schemes in the UK (Attanasio et al., 2004).

effects at younger ages.⁷ The question of the order of magnitude of such effects at earlier ages, however, remains an open one, and the investigation of the timing of the resolution of longevity uncertainty is surely an important topic for future research. Such effects could be substantial as a result of early-life health behaviours or, alternatively, parents becoming ill or dying when individuals are younger.

If there are potential advantages of committing to an annuity rate early among a group of relatively similar individuals, then these have to be set against the potential additional costs to pension funds or employers offering insurance against unexpected increases in life expectancy of future cohorts. These additional costs may well be larger the earlier the annuity rate is offered and will in turn depend on the cost to the private sector of hedging aggregate mortality risk. It has been suggested in the UK that the government could issue bonds that are indexed to longevity changes to reduce these costs.⁸ Amongst other things, the pros and cons of doing so will depend on the extent to which suitable hedging opportunities already exist (and at what price). For example, employers or pension funds may already be investing in assets with prices that are correlated with longevity in order to hedge this risk, one obvious example being housing.

When considering the transfer of risk from pension funds to individuals, and the possible costs associated with this movement, the balance between state and private provision is particularly important. In the extreme example of an individual losing their entire fund value in a DC plan, in the USA this individual would fall back on a public pension, which will still give some substantial (earnings-related) benefits (giving a replacement rate of around 40 per cent). In a contracted-out system such as the UK's, this is not the case and the same individual would end up on just the flat-rate basic pension – around 10 per cent of average earnings – not counting any means-tested benefits they might receive. For risk-averse individuals, the utility consequences of such a difference are substantial. As a result, the regulation of risks and risk management in private pensions is considerably more important as the amount of state provision decreases. In a recent symposium on public provision, Shiller (2003) and Burtless (2003) looked at related issues regarding the mix between DB and DC in the context of the optimal distribution of investment risks across the population of current and future cohorts.

⁷Note that not all changes in subjective survival probabilities represent 'bad news' for annuity providers. A scenario in which an individual, previously certain of living to age 75, reduces their assessment of survival to, say, 80 per cent could well increase the functioning of markets, since it is individuals with (private) subjective assessments that they lie above (or below) the mean that cause the market to separate.

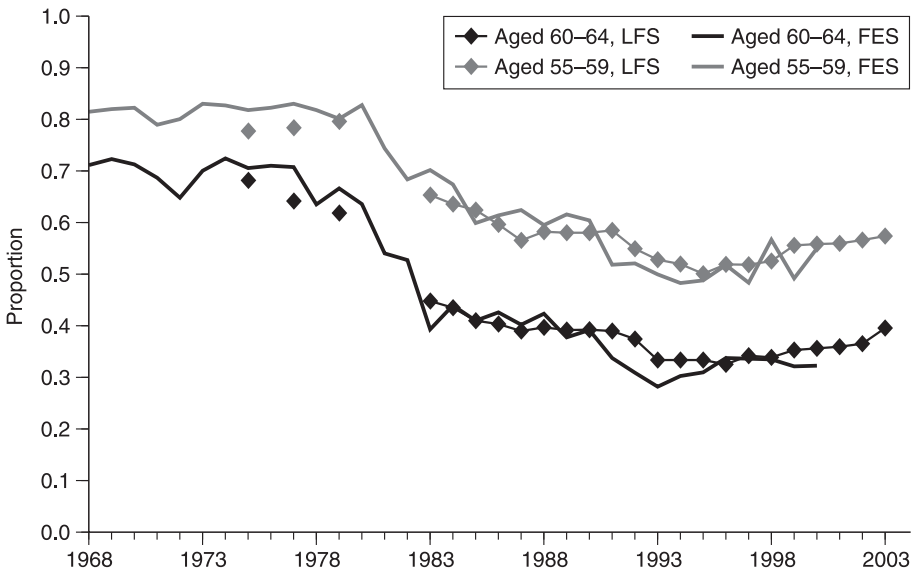
⁸See speech by David Willetts MP to Politeia, 5 July 2004. A similar proposal is made in Blake and Burrows (2001).

IV. Economic background 2: employment patterns of older adults in the UK

The pressures on the generosity of both public and private pensions at the end of the 1990s clearly spelled an end to the trend toward early retirement. As shown in Figure 6, employment rates among older men have risen by more than 5 percentage points since the late 1990s. But can we attribute this rise to pressures on the pension system or is it driven more by cyclical considerations?

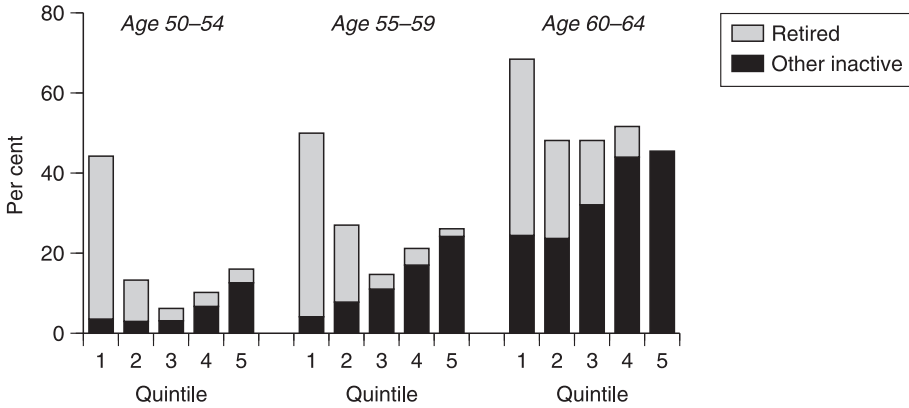
By 2003, employment rates rose to around 40 per cent for men in the 60–64 age bracket and to nearly 60 per cent for those in the 55–59 age range – still far below their levels in the early 1980s but increasing nonetheless. Interestingly, if one examines the data in more detail, the strongest increase has occurred for those with lower education levels. This increase occurred in the mid-1990s, well before any pressures on pension systems were recognised, and have affected a group for which the pressures are rather less important. This growth in employment is therefore likely to reflect the growth in opportunities in the labour market that has occurred with the cyclical upturn. The employment rates of lower-skilled workers are generally much more sensitive to cyclical changes. It should be added that the majority of men in these older age groups have only minimal levels of

FIGURE 6
UK male employment rates



Source: Authors' calculations from Labour Force Survey and Family Expenditure Survey microdata (various years).

FIGURE 7

Male retirement and other inactivity by age and wealth quintile

Source: 2002 ELSA data.

education, and consequently this lower education group contains a wide variety of individuals across the lower part of the skill distribution.

To investigate the heterogeneity in employment rates further, we can examine employment across the wealth distribution, with wealth defined as net housing and financial assets. Non-employment at older ages tends to be concentrated at the two ends of the wealth distribution. This is starkly revealed in Figure 7, which gives a picture of retirement and inactivity across the quintiles of the wealth distribution for three age groups of older men. These data come from ELSA and, although they represent a cross-section analysis of wave 1, sampled in 2002, they are extremely useful in understanding retirement. The darker bars show those who are out of the labour market and who say they are retired. This form of early retirement increases with wealth, especially so in the 55–59 age group. Higher-wealth individuals, even though they may also be expected to live longer, use their accumulated wealth to fund early retirement. Earlier econometric analysis of retirements in the first half of the 1990s, using the UK Retirement Survey, also found strong wealth effects (see Blundell, Meghir and Smith (2004)).

For the inactive, there is a very different picture. The lighter shaded bars in Figure 7 show those who are not employed and who are declared to be inactive or disabled. These bars are monotonic in the opposite direction to retirement. Overall, the picture is of a U-shaped ‘out of employment’ profile, with employment most buoyant among the middle wealth group.

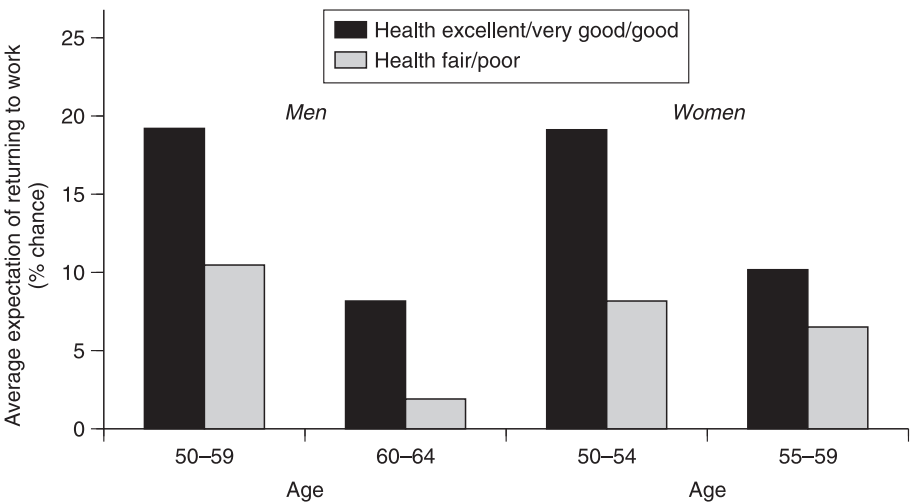
As a consequence of this heterogeneity of employment rates across the wealth distribution among older individuals, we need to be more specific about the likely effects of the pressures on pension systems, be they state or privately provided schemes.

For higher-educated workers, the wealth effect from the higher value of pension wealth and early retirement opportunities may have balanced out the enhanced labour market opportunities over the 1990s. This would explain the shallower growth in employment and the observation that the strong trend away from early retirement for this group has only become clear in the last few years. Over these last few years, however, the increased pressure on the funds for those individuals in final-salary employer (DB) pensions means that firms are unwilling to offer generous early retirement windows. In addition, falling annuity rates made the income stream, from a now less valuable fund, even less generous. Finally, new entrants to firms are typically offered a defined contribution scheme rather than the company’s final-salary scheme. Given the commitment to those already retired, this has put increased pressure on those workers remaining in company schemes. These considerations should reduce the flow into early retirement in the higher-skilled group.

What about those who are inactive but not retired? Inactive individuals will, for the most part, be included in the lower education group but will only make up a fraction of this group – those with quite low wealth. Again, ELSA can be helpful in understanding their position. Figure 8 considers the employment expectations of those currently out of the labour market, split according to their self-reported health. For both men and women, the expectation of returning to work among those whose health is good or excellent is around twice that of those reporting less good health. This

FIGURE 8

*Self-assessed chances of working at age 60 by health status:
inactive (non-retired) individuals below state pension age*



Source: 2002 ELSA data.

suggests that it is unlikely that those in the low-wealth inactive group will return to work. Of course, it is only in the next wave of ELSA that we will be able to tell whether these expectations are realised.

In the longer term, attention will be turned to the labour supply choices of the increasing numbers of individuals retiring with substantial fractions of their wealth in private pensions. Banks, Blundell and Emmerson (2004) show that the effects of plan design on future employment expectations appear to be quite strong, even when controlling for other differences across individuals and for wealth levels. The base group is those in SERPS, which is essentially an average-earnings-based DB scheme. As one might expect, those in (predominantly final-salary) employer DB plans report chances of working at age 60 that are, on average, 3 percentage points lower than those of individuals in SERPS. Those with DC arrangements report probabilities up to 7 percentage points higher than those in SERPS. This ‘forward-looking’ evidence on the expectations of those currently working is consistent with the conclusions drawn from the labour market outcomes of recent retirees (for example, Blundell, Meghir and Smith (2004)). Taken together, these results suggest that at the population level, if the reliance on DC schemes were to expand heavily with the pressure on final-salary DB schemes, working lives may well be prolonged.

V. Further discussion

Even though the pressures from increasing longevity were evident during the 1980s, the rise in equity prices over the 1990s managed to hide them: company-based pension schemes and individual defined contribution schemes displayed unprecedented growth. Quite generous retirement incomes and retirement windows were afforded despite the increased longevity, and, at the same time, SERPS was reaching its full maturity.

This situation resulted in a ‘golden generation’ of retirees, at the end of the last century, who retired on relatively generous pensions despite their increased longevity. The recent fall in equity prices and the squeeze on annuity rates heralded a turnaround in this state of affairs and in a rather dramatic fashion. At the same time, the state system has become less generous, especially to those on relatively higher levels of earned income.

Additionally, recent policy debate in Britain has now rightly begun to focus on the private pensions and saving arrangements of the young and the middle-aged, whilst also recognising that longer working lives could also provide a margin by which such individuals could provide higher retirement incomes for themselves. Whilst this acknowledgement of the employment margin is now explicit in the debate (see Pensions Commission (2004)), it is still the case that currently discussed policy reform is more focused on

encouraging pension saving in one form or other than on encouraging late-life employment.⁹

Holding retirement patterns constant when calculating the adequacy of retirement saving and any associated policy remedies may be one of a number of sensible benchmarks for two reasons. First, without detailed and reliable data on employment expectations, policymakers would only know whether adjustments had been made when it was effectively too late to intervene further. Second, it might be thought that the group with ‘inadequate’ retirement saving may not be a group of individuals for whom it is particularly easy to extend the length of working life. Nevertheless, it should be remembered that such a scenario represents almost a worst-case scenario with regard to the adequacy of retirement saving. In addition, in this scenario, the movement towards more individual provision would lead to even greater inequalities amongst future generations of pensioners.

In reality, though, the need for further reform will depend not just on the degree to which private pension saving adjusts to the new demographic and economic conditions, but also on the nature of any increasing adverse selection in the movement from DB to DC, and the length of any increases in working lives that may be caused either directly by increasing longevity or indirectly by the switch of private provision from DB to DC.

To what extent are working lives likely to adjust, reducing the need for adjustments at the savings margin? It is certainly true that rising longevity will strengthen the trend toward later retirement, and these effects are likely to be strongest amongst those on middle earnings and those with DC pensions. The reduced prevalence of DB plans, and the associated lessening of the adverse incentive effects on labour supply associated with such plans, will also contribute to this trend. But other factors such as health, family and social factors are also key to labour supply. In addition, labour market outcomes will be determined by both supply and demand, and there are many questions remaining that relate to the future demand for older workers.

With regard to the savings margin itself, much depends on the way in which individual choices about pension membership and subsequently pension contributions are made. Such decisions are particularly complex for individuals to take – not only do they need to take into account a whole set of future expectations about a future that is considerably uncertain, but they also typically involve fixed costs and/or switching costs. In such a setting, it is not unreasonable to expect some degree of inertia in pension membership, although the effect on the adjustment of contributions over time is less clear. In a world where individuals were using crude rules of thumb to

⁹With the exception of the increase in the state pension age for women that will take place between 2010 and 2020, and various policies that are targeted at removing age discrimination in the labour market.

approximate ‘rational’ economic decisions, it is possible that contributions would also be slow to adjust, since rules of thumb would conceivably evolve only slowly in response to a shift to a new demographic equilibrium.

A further important factor is the potentially changing role for the employer as private pension arrangements evolve. One possibly important dimension is that employers have often represented the channel through which pension information and advice passes as individuals make their pension decisions. There is increasing evidence that employers’ default arrangements regarding their employees’ pensions are important determinants of their employees’ subsequent pension and saving outcomes (see Choi et al. (2002 and 2004)). Changes in either the degree to which employers are involved in pension provision or the nature of employers’ default arrangements could impact on future pension outcomes. Coupled with the possibility of increasing adverse selection costs with moves towards DC arrangements, it is certainly possible that rising longevity will encourage the development of new-style company or occupational pension schemes, in which retirement incomes are less linked to final salaries than in most existing DB schemes but which offer employees greater protection against longevity risk and unfavourable movements in financial markets than most existing DC schemes.

It is clear from the discussions and evidence presented above that the suitability of any particular proposed reform, and any evaluation of its potential long-run success, would need to be informed by background evidence on various issues. These include individual longevity expectations and how they evolve over the life cycle, the nature of private pension decisions – relating to both membership and contributions – and the determinants (on both the demand and the supply side) of labour market outcomes for older workers across the different parts of the permanent income distribution.

This is a complex task made more difficult by the fact that, as a result of a history of frequent ‘radical’ reform, the hybrid UK pension system is already very complicated in two senses. First, individuals approaching retirement may well have retirement incomes coming from multiple pension sources, and a reform aiming to minimise the number of losers will be complex to design if it is not to risk high deadweight loss. Second, future pension savers have a complex set of choices to make, made worse by a policy environment that is constantly changing. Future reform should provide a stable environment in which the intertemporal choices that lie at the heart of the private component of a mixed system can be taken as efficiently as possible. This suggests that reform should not be carried out until policymakers have evidence on the issues outlined above, which, in turn, makes them a priority for future research.

VI. Conclusion

With regard to the relative role of employees and employers in making private pension provision, the move from defined benefit to defined contribution schemes – while not as dramatic as sometimes portrayed – will shift investment and longevity risks increasingly onto individuals. This does not appear to be a short-term phenomenon that will be reversed by better stock market performance. The shift to DC schemes is likely to focus growing attention on the workings of the annuities market, as well as adding to the likelihood that, in future, individuals will on average choose to retire later. A key driving force behind all these issues will be individuals' perceptions of their increased longevity and how they evolve over the life cycle.

The changes in the generosity and targeting of the state pension system, combined with the changing nature of private pension provision, are likely to affect people's saving and retirement decisions in different ways at different points in the income distribution. The choices available to the poorest are limited in any event and may not be altered in any significant way. The richest will be affected by the changes in private provision but might be best placed to make appropriate adjustments to their retirement planning. Even if they do not adjust fully, so that their retirement plans may not be optimal from their own perspective, they are still likely to be relatively comfortable in retirement and are therefore unlikely to become a burden on other taxpayers. The most important group is those people who are or expect to be on low to middle incomes – who are at the boundary of the state and private systems. They will face clear incentives to work longer and retire later, but it is less clear whether, in aggregate, the system will encourage them to save more.

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