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ECONOMIC & SOCIAL RESEARCH COUNCIL

ESRC

ESRC Seminar Series

Mapping the public policy landscape

Pensions, Pensioners and Pensions Policy:

Financial security in UK retirement savings?

Foreword

This seminar on pensions is the third in a series in which the Economic and Social Research Council presents independent research in key policy areas to potential users in government, politics, the media, and the private and voluntary sectors.

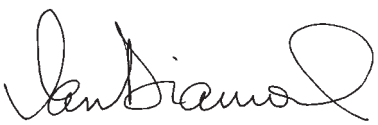
Britain's ageing population coupled with a stock market crash has made pensions one of today's major policy issues for the government. It also poses one of its most complex challenges.

These include how to achieve objectives that naturally conflict. For example, encouraging individuals to save for retirement but also providing adequate financial security for old age. Or how to build a pension system that is sustainable in terms of the financial burden it places on the working population, who fund it through taxes.

These are some of the issues that the research from the ESRC's Centre for the Microeconomic Analysis of Public Policy at the Institute for Fiscal Studies will address at today's seminar and in this booklet.

Research into pensions is only a fraction of the high-quality research that the ESRC funds. We address a wide range of economic and social concerns of importance to business, the voluntary sector and government.

We hope you find the seminar and this booklet valuable. We also see this as an opportunity to further establish dialogue with the users of our research.



Professor Ian Diamond AcSS
Chief Executive
Economic and Social Research Council

Executive summary

Introduction

Is it possible to design a pension system that can guarantee financial security to individuals, employers and to the state simultaneously? In the following paper, researchers from the ESRC Centre for the Microeconomic Analysis of Public Policy at the Institute for Fiscal Studies put forward evidence-based findings on the three key questions which underpin the design of a fair and efficient pension system:

1. Is the financial support offered to pensioners by the state in retirement sustainable in terms of the burden it places on the working population?

2. Are the mechanisms by which the private financial sector helps people save for retirement sustainable in their apportionment of risk between employers and employees?

3. 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?

Research insights

- Despite an ageing population and a decline in the number of working age people relative to the number of pensioners, the costs of the current UK state pension system are not expected to require increases in taxation. At first glance, the UK appears to be relatively fortunate compared to other countries as official projections suggest that the cost of the state pension system will remain broadly stable as a share of national income. But the picture may not be quite as benign as this suggests. The UK system appears as sustainable as it does because it will become increasingly less generous and increasingly reliant on means-testing. If people respond by reducing private savings, this could push a greater burden onto the state.

- With regard to the relative role of employees and employers in making private pension provision, the move from defined benefit (DB) to defined contribution (DC) schemes – while not as dramatic as sometimes portrayed – will shift investment and longevity risks increasingly onto individuals. This does not appear 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 affecting incentives to retire at different ages.

Policy implications

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 savings and retirement decision 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 experience suggests that they are financially literate and if even if they do not adjust their behaviour accordingly it is unlikely that they will fall back on to the state.

- The most important group are those people who are, or expect to be, on low to middle incomes – who are at the interface 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. If they do not, then the burden may be thrown back on the state.

The researchers

Professor Orazio Attanasio is a Research Fellow of the Institute for Fiscal Studies (IFS), and Director of the Centre for the Evaluation of Development Policies at IFS. He is also a Professor at University College London. His current research interests include household consumption and saving behaviour; risk sharing and inequality and education choices in developing countries.

Dr James Banks is Deputy Research Director of IFS and Director of the Centre for Economic Research on Ageing at IFS. He is reader in Economics at University College London. He studied at Bristol University and the London School of Economics before receiving his PhD from UCL. His research focuses on empirical models of savings, pensions, retirement and household asset holding; household spending behaviour and intertemporal consumption patterns; equivalence scales and welfare measures. He is also currently involved with design and collection of economic data and is Co-Principal Investigator of the English Longitudinal Study of Ageing.

Professor Richard Blundell is Research Director of IFS, where he is also Director of the ESRC Centre for the Microeconomic Analysis of Public Policy. He is also Leverhulme Research Professor at University College London and President of the European Economics Association. He has made contributions in the fields of microeconometrics, savings and consumption, labour supply and taxation, consumer demand, innovation and market structure, household behaviour and public economics.

Robert Chote is Director of IFS. He was formerly an adviser and speechwriter to the First Deputy Managing Director of the International Monetary Fund, working first for Stanley Fischer and then for Anne Krueger. Previously, he was Economics Editor of the Financial Times. He has carried out consultancy work for organisations including the United Nations and Commonwealth Secretariat.

Carl Emmerson is Director of the pensions and public spending research sector at IFS. He gained a M.Sc. in economics from Birkbeck College in 1999. His work includes research on the public finances and public spending, local government issues and the evaluation of government policy. His research interests also include pension provision and saving behaviour.

Pensions, Pensioners and **Pensions Policy:**

Financial security in UK retirement savings?

■ ORAZIO ATTANASIO ■ JAMES BANKS ■ RICHARD BLUNDELL

■ ROBERT CHOTE ■ CARL EMMERSON[1]

INSTITUTE FOR FISCAL STUDIES

Introduction

There can be few areas of public policy evidently as important, yet apparently as intractable, as the design of a fair and efficient pension system. While we should all be thankful that life is no longer as 'nasty, brutish and short' than it was in the days of Thomas Hobbes, the unexpectedly rapid ageing of the population makes it all the more urgent to design a system that will encourage those who can provide for their own retirement while helping those who reach the end of their working lives with insufficient wealth to sustain what society regards as 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 questions (among many others) 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 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 the sharing of risk between employers and employees? And, 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?

The answers to these questions depend on a multitude of complex factors, ranging from demography to investment returns, and from labour market opportunities to financial literacy. None is easy to resolve, but empirical microeconomic analysis can help shed light on all of them. This paper outlines some of the contributions that research funded by the ESRC and others has made to answering each of them.

[1] Financial support from the ESRC-funded Centre for the Microeconomic Analysis of Public Policy at IFS is gratefully acknowledged. Thanks are due to Richard Disney, Simon Burgess and Paul Gregg for helpful comments and discussions. Any errors and all opinions expressed are those of the authors.

2 Financial security for the UK state pension system?

As in most countries, state pensions in the UK are financed entirely on a Pay-As-You-Go basis. This means that the state pensions of today's pensioners are paid from contributions from the earnings of today's workers. Broadly speaking, the more generous state pensions are relative to average earnings at any given time, and the larger the number of pension recipients relative to the size of the working population, the bigger the contribution that workers need to make as a proportion of their pay packets to keep the system going.

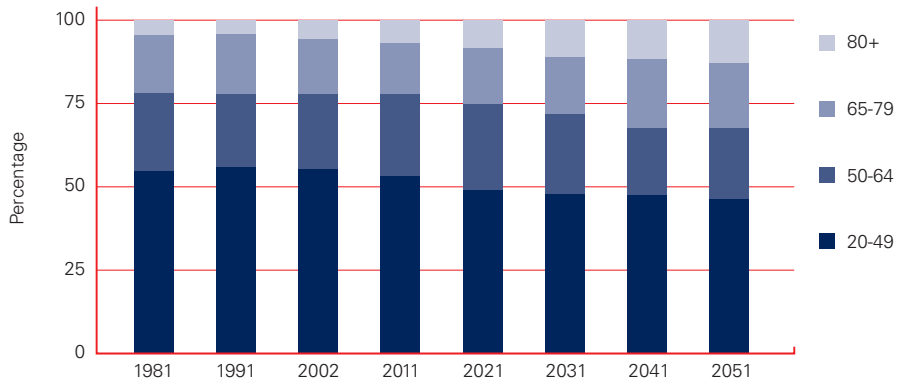
The contribution rate required to finance a given pay-as-you-go state pension system has increased in recent decades as the population has aged. Importantly for individuals, policymakers and pension providers, the population is expected to continue ageing (as in other countries) for two main reasons.

First, the rise in the birth rate immediately after the Second World War and its subsequent decline. This means that a particularly large number of people will reach the state pension age between 2010 and 2020, without there being equivalent growth in the working age population. Second, increases in life expectancies at later ages. These mean that individuals will be older than any fixed state pension age for a longer period of their lifetime than would have been the case in the past. For example, between 1961 and 1997 the life expectancy of men aged 65 increased from 11.9 years to 15 years. This increase of three years over a 36 year period compares to an increase of just one year over the 120 years between 1840 and 1960.

So how is the UK population going to change over the next half a century? The latest forecasts from the Government Actuary's Department suggest that between 2002 and 2051 the number of people aged 20 to 64 will remain at around 35.1 million. In contrast the number of people aged 65 and over is forecast to increase by 79 percent from 9.4 million to 16.8 million. As a result, while there are currently 3.7 people aged 20 to 64 for every person who is aged 65 and over, this ratio is forecast to fall to 2.1 by 2051. Even if life expectancies do not increase in the future by the middle of this century the number of individuals aged 65 and over is still forecast to increase to 12.9 million, and the ratio of individuals aged 20 to 64 to those aged 65 and over to fall to 2.7. The forecast composition of the UK population aged 20 and over from 1981 to 2051 is shown in figure 2.1. In the absence of any increase in employment rates, this decline in the number of working age people relative to the number of pensioners would increase the contribution rate required to finance a given pay-as-you-go state pension system.

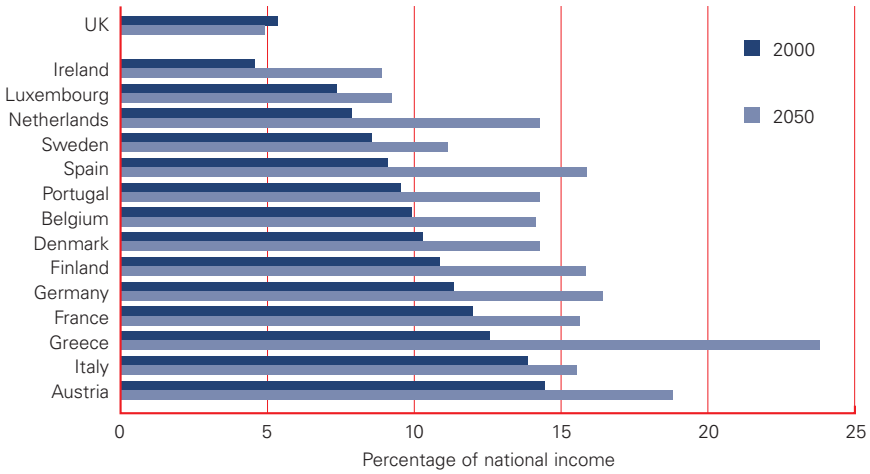
Yet, despite the fact that the population is going to get much older, the costs of the current UK state pension system are not expected to require increases in taxation. Spending on the UK state pension system is forecast to fall from 5.5 percent of national income in 2000 to five percent of national income in 2050. This is in sharp contrast to all other EU countries, as Figure 2.2 illustrates. Even in Ireland, which at 4.6 percent of national income is the only country to have spent less than the UK in 2000, the costs of the current state pension system is forecast to rise to nine percent of national income in 2050. But, crucially, the apparently benign outlook for the UK assumes that current policy regarding the future generosity of the state pension system is sustainable. That may not be the case, for reasons we shall come to.

Figure 2.1 Composition of the population aged 20 and over by broad age group, 1981 to 2051



Source GAD 2002 Population Projections Database: http://www.gad.gov.uk

Figure 2.2 Spending on public pensions, 2000 (Actual) and 2050 (Projected)



Source Eurostat

Why does the picture look as benign as it does for the UK? Because, even after the increases in future state pension spending implied by the current Labour government's Child Support, Pensions and Social Security Act of 2000, the reforms implemented by the Thatcher and Major governments between 1980 and 1995 mean that the current state pension system is significantly less generous – and therefore less costly to the taxpayer – than the one that was in place before 1980.

Box 2.1 Reforms to the UK state pension system, 1980 to present day

Reductions in generosity of the state system:

Social Security Act 1980	State pension payments to be increased by growth in prices instead of the greater of growth in prices or earnings.
Social Security Act 1986	Entitlement to State Earnings-Related Pension Scheme (SERPS) to be calculated on the basis of earnings in 49 years rather than across the best 20 years, phased in for those reaching the state pension age from April 2000 onwards. The accrual factor on SERPS to be reduced from 25 percent to 20 percent of earnings between the lower and upper earnings limits. This is to be phased in for those reaching the state pension age between April 2000 and March 2008, although accrued entitlement from before April 1988 is protected. Surviving partners of those who die after April 2000 to inherit 50 percent of their spouses state pension instead of 100 percent. This change was later put back to October 2002 after the Department for Social Security failed to correctly inform some individuals of this change.
Social Security Act 1995	State pension age for women to be increased from 60 to 65 gradually between 2010 and 2020. Technical change made to the formula used to calculate SERPS entitlement. This reduced the generosity of SERPS to those reaching the state pension age after April 1999, with both retrospective and prospective SERPS rights reduced.

Increases in generosity of the state system:

Child Support, Pensions and Social Security Act 2000	The State Second Pension to replace SERPS from April 2002 onwards. This is more generous to lower earners and to some individuals with caring responsibilities.

If the Basic State Pension continues to rise in line with prices, it will become increasingly less generous relative to the incomes of people in work. The total bill for the Basic State Pension is still expected to rise in real terms, from £34.4 billion in 2000 to £51.2 billion in 2050 (as shown in row 1 of Table 2.1). This reflects prospective increases in both the number of people of pension age and the proportion of women eligible for a full Basic State Pension. However, the figures imply average annual growth of only 0.8 percent a year in real terms – considerably less than the forecast growth in earnings or national income over this period. This implies that state spending on the Basic State Pension will fall as a share of national income.

Spending on the State Earnings-Related Pension Scheme (SERPS) and its successor the State Second Pension – is forecast to grow from £4.9 billion in 2000 to £30.2 billion in 2050 (as shown in row 5 of table 2.1). While this is faster than the growth in the national economy forecast over this period, spending on all state pension is still projected to fall as a share of national income over the next fifty years, despite the expected 79 percent increase in the number of people aged 65 and over.

Table 2.1 Future Costs of State Pensions (£billion, 1999–2000 prices)

		Financial year starting: 2000	2010	2020	2030	2040	2050	Average annual increase to 2030	to 2050
	Basic state pension								
1	Basic pension cost	34.4	38	41.3	49.4	52.8	51.2	1.2	0.8
2	Earnings indexation from 1999–2000 onwards	34.9	44.7	56.3	78.3	96.9	108.8	2.7	2.3
3	Without equalisation of retirement ages	34.4	38	45.9	54.1	55.6	53.7	1.5	0.9
4	Earnings indexation of benefits from 1980 onwards	46.8	61.2	74.4	102.8	126.8	139.8	2.7	2.2
	Second-tier state pensions								
5	State Second Pension after the 1999 Act	4.9	9.5	12.8	17.8	22.5	30.2	4.4	3.7
6	SERPS after the 1995 Act	4.9	8.9	10.9	12.4	12.3	13.3	3.7	2
7	SERPS with original formula, retirement ages and inheritance rights	4.9	13.8	28.8	47.3	n.a.	n.a.	7.9	n.a.

Source Table 9.7 of Emmerson, C. and Johnson, P. (2002)

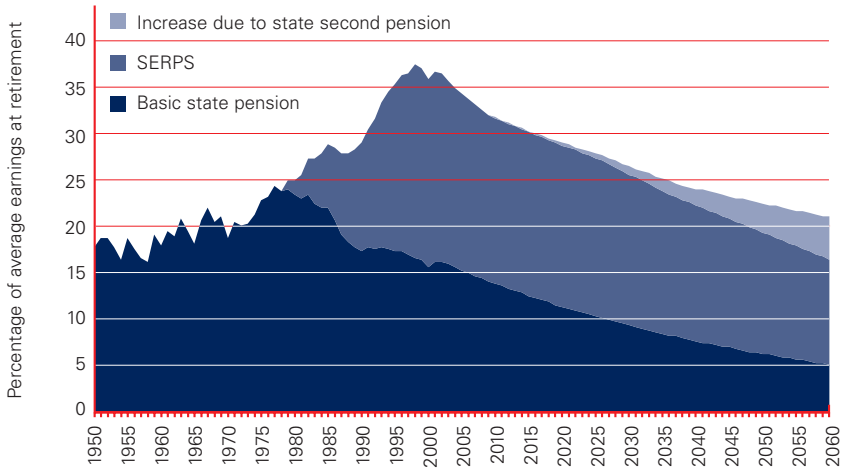
Note: Earnings growth of 1.5 percent has been assumed.

Table 2.1 also shows how much more expensive the state pension system would be without the reforms we have seen since 1980. For example, if the Basic State Pension had still been indexed to earnings growth since 1980 spending in 2000 would have been £46.8 billion, 36 percent higher than the actual cost of £34.4 billion. Similarly, spending in 2050 would be forecast at £139.8 billion, more than twice the £51.2 billion forecast for the current system (row 4 compared to row 1). The reforms have also substantially reduced the cost of second-tier earnings-related state pensions. Maintaining the original SERPS would have cost £47.3 billion in 2030 – substantially higher than either the forecast £12.4 billion cost in that year of the system as it stood after the 1995 reform or the £17.8 billion cost of the more generous State Second Pension introduced in 2000.

If state spending on the Basic State Pension and the State Second Pension does fall as a share of national income over a period with increasing numbers of pensioners then total state pension spending per pensioner will fall relative to national income and to the living standards of people in work. This is illustrated in figure 2.3. It shows the initial state pension entitlement by year of retirement, expressed as a percentage of final salary, for an individual with a full contribution history and earnings always equal to the national average, who retires at the state pension age. While entitlement to the Basic State Pension peaked in generosity for those retiring in the late 1970s, entitlement including SERPS peaked in 1998 at just under 37 percent of average earnings. Those retiring between 1991 and 2015 will get more than either earlier or later retirees, and the highest benefits will go to those retiring between 1995 and 2005. These cohorts have been called the 'golden generation' since they received the best deal from state pensions, as well as living their working lives in a period of high real earnings growth and high returns on investments in both the stock market and housing.

Even when we include the more generous State Second Pension, state pension income is still forecast to decline to under 21 percent of average earnings in 2060. This highlights the fact that if pensioners in future are not to be worse off relative to the working age population then non-state pension sources of pensioner incomes will need to make up for the declining relative generosity of state pensions.

Figure 2.3 State pension entitlements, by year of retirement



Source Figure 9.1 of Government Actuary's Department (2003a)

Notes: Calculations for an individual with full contribution history at average earnings throughout working life. Assumes annual real earnings growth of two percent.

How individuals and future governments respond to this prospective decline in the generosity of the state pension system will have a crucial impact on the amount the state eventually has to spend more broadly on supporting the living standards of the elderly – and therefore on how much comfort we should take from the apparently benign official projections for the cost of the state pension system in isolation.

For example, if increases in private pension income do not compensate fully for the declining generosity of the state pension system, then more pensioners may find themselves reliant on other forms of state support, in particular means-tested benefits such as the Pension Credit. The cost to the taxpayer will of course depend on how generous governments decide to make such means-tested support in the future. Assessing the likely cost is further complicated by the fact that people's willingness to save for retirement, while at work, will presumably depend in part on the extent to which they expect any extra private income that they generate, as a result, to add to their resources in retirement or simply to be offset by lower entitlement to means-tested benefits. This is discussed in more detail in section 4.

Future reforms may of course change the generosity of either means-tested or universal state support for pensioners. Much may depend on the balance of political power between those benefiting from such support and those paying for it.

It seems likely that many European countries will make their state pension systems less generous in order to limit the tax increases required to finance them. For example, it seems politically implausible that Greece will increase taxation by the 11.2 percent of national income required to pay for its current state pension system in 2050 (see figure 2.2). Equally it is possible that future UK Governments may come under increased political pressure to raise state pensions. The ageing of the population could add to this political pressure – figure 2.1 shows that by 2021 more than half the voting age individuals will be aged 50 or over. As younger individuals are less likely to vote, the percentage of actual voters aged 50 or over will be even higher (although the young could be energised to vote in greater numbers to counterbalance the increasing power of the grey vote). Conversely it is also possible that future generations of pensioners might exert less political pressure for increases in state pensions simply because they have been led not to expect to rely on income from that source. This could in turn depend on the size of pensioners' private incomes from other sources, such as occupational pensions. This is discussed in the next section.

In addition to the possibility of policy changes, the cost of the state pension system could also turn out greater than current projections suggest if current forecasts of demographic change turn out to be incorrect in the way they have in recent years. Demographic projections have consistently under-predicted improvements in mortality and hence underestimated the number of pensioners that survive at any given age. 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. If the direction of these errors persists then there will be an even larger increase in the number of individuals aged over the state pension age and commensurately higher state pension spending.

Predictions based on current demographic forecasts could also be misleading if future trends in fertility or immigration are different to those currently anticipated. For example higher than expected immigration of working age individuals could reduce the level of contributions required to finance a given generosity of current state pension. And the fertility and mortality rates of immigrants, if different to the currently resident population, will also shape future demographic pressures.

3 Financial security for private pensions?

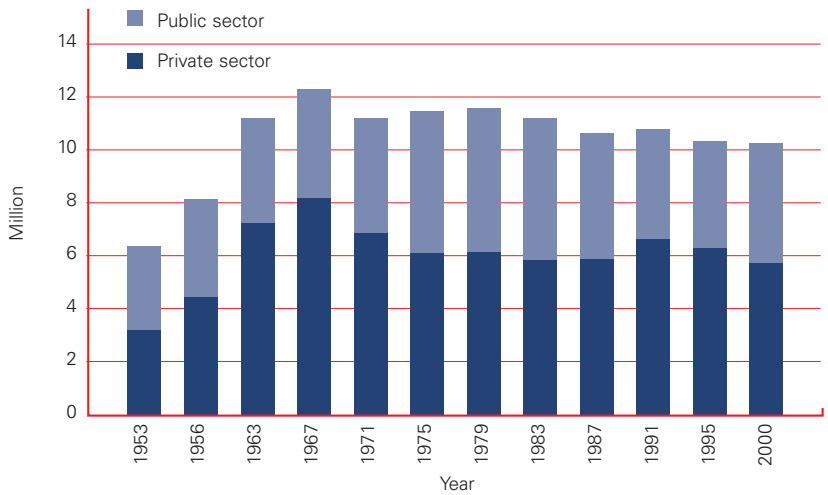
We now turn to the contribution of private pension provision in providing retirement income. The majority of private pensions in the UK are employer provided private pensions, often known as occupational pensions. A smaller, but growing, number of individuals are covered by individual private pension accounts (typically personal pensions or stakeholder pensions). These individual arrangements have seen an explosion in coverage since the introduction of personal pensions in April 1988 (Disney and Whitehouse, 1992; Disney, Emmerson and Wakefield, 2001).

There are two basic types of occupational pension in the UK. Historically the most common have been defined benefit (DB) schemes. In these schemes the pension an employee receives in retirement depends on years of service and a measure of earnings often closely related to final salary. The other main type is defined contribution (DC) schemes in which the size of pension depends directly on the contributions made to a fund, the return achieved on the investments held in that fund, and the annuity rate available at retirement (in other words the income that a provider is prepared to guarantee a pensioner for life for each pound they have accumulated in their pension fund). All individual pensions arrangements, such as personal pensions and stakeholder pensions, operate on a DC basis.

In principle there is no fundamental difference between DB or DC pension schemes – a DB scheme could be set up to mimic the fundamental characteristics of a DC scheme, or vice versa (see Bodie, Marcus and Merton (1988) or Diamond (2002)). In practice, schemes in the UK have key differences in the incentives and risks that are faced by individuals which depend on whether their plan is DB or DC in nature. In particular in DB schemes the employer rather than the employee bears the risk that the individual will live longer in retirement or that the investment return on his or her pension contributions will be lower than was anticipated at the time the generosity of the pension payment was determined. Other risks, most notably job tenure and employer risks but also inflation and state pension risk, are also typically insured differently across the two types of plan.

Membership of occupational pension schemes from 1953 to 2000 is shown in figure 3.1. Total coverage has been in decline since the early 1980s. Within this total there has been an increase in coverage of women and a sharp decline in coverage of men. These changes have been somewhat offset by sharp increases in the number of individuals with (DC) personal pensions, since their introduction in 1988.

Figure 3.1 Membership of occupational pension schemes, 1953 to 2000, by whether a member of a public or a private sector scheme



Source Table 3.3 of Government Actuary's Department (2003b)

Recent years have also seen a shift of coverage from defined benefit (DB) to defined contribution (DC) occupational pension schemes. Much public attention has focused on this trend, but it is important to keep the magnitude of the shift in perspective. The shift to DC is often reported in terms of the number of company schemes rather than the number of employees. Of the 240 closures of DB schemes reported in the Pension Scheme Registry, 200 of them had less than 1,000 members. The gradual shift in the stock of occupational pension scheme members from defined benefit to defined contribution schemes can be seen by comparing scheme types by whether the scheme is open or closed to new members. In the 2000 Department for Work and Pensions Survey of Employers Pension Provision 87 percent of members of closed occupational pension schemes were in a salary-related or mainly salary-related scheme compared to 77 percent of those in schemes that were open to new members (table 5.7 of Smith and McKay, 2002).

In most cases closure affects new employees only and in the public sector there seems to be little evidence of any move away from DB schemes, although the restructuring of contributions and benefits seems more likely.

There are two key long-run driving forces behind the decline in DB schemes:

- The first is the larger than expected increases in longevity discussed in section 2. Since the incomes of current retirees are fixed, to remain fully funded schemes need to increase the contribution levels of new entrants or reduce their prospective benefits. This kind of discrimination across cohorts of employees has been difficult to implement in DB schemes and therefore is rarely observed. This is in contrast to DC schemes where annual benefits automatically fall with increasing life expectancy through adjustments in annuity prices.

- The second driving force behind the movement from DB to DC schemes is increased mobility of workers. Although evidence is mixed, there seems to be a consensus that men are now moving jobs more often, and that there is a secular decline in long term jobs. For women there have been lengthening job tenures on average, this is driven by women with children and possibly reflects changing arrangements for maternity leave (Gregg and Wadsworth 2002). Increased mobility between employers makes final salary schemes less attractive. Disney and Emmerson (2002) show that individuals who choose not to join their employer's pension scheme are subsequently more likely to move job. Although the importance of mobility will differ across occupations and may not be important for certain careers, it is increasingly recognised that mobility is an important component of earnings growth among younger workers. For unfunded (public sector) DB schemes a further demographic pressure is the decline in the proportion of younger workers in some occupations and the consequent decline in the numbers of new contributors to these schemes. This is analogous to the demographic pressure on the state system discussed in the previous section.

A third possible pressure on private sector DB schemes is where schemes are, or have been, integrated with the state pension system. In these 'integrated' schemes retirement benefits are adjusted in response to changes in the generosity of the state system (typically the Basic State Pension or the Lower Earnings Limit). Hence members are provided with some insurance against the state being less generous in the future. In 2000 42 percent of private sector DB pension schemes were integrated (26th NAPF Annual Survey of Occupational Pensions, 2000). The 1980 decision to increase state pension payments by growth in prices instead of the greater of growth in prices or earnings will have increased the costs of running integrated DB schemes. To the extent that DB schemes do not adjust contributions and benefit formulae accordingly, other changes to government policy on the taxation of contributions or returns to pension investments would also affect the financial pressure faced by employers offering DB plans.

The impact of these pressures was less evident while the returns on stock market investments in pension funds were unusually high in the 1980s and 1990s. With equity returns falling back to perhaps a more sustainable long-run level these pressures have become all the more apparent. The increased transparency demanded by changes to the rules determining how pension liabilities are treated in company accounts (FRS17) has further highlighted the size of some employers' commitments in DB schemes. What is clear is that the incentives for firms and, to some extent, for workers to move from DB to DC schemes has been driven by longer run pressures as opposed to short run fluctuations in equity prices. In other words, a rebound in the stock market alone will not necessarily reverse the shift from DB to DC schemes we have seen in recent years.

With younger cohorts increasingly saving for retirement through DC schemes, individuals will need to take greater responsibility for making their own investment choices, especially if companies offer Group Personal Pension or Stakeholder schemes. Individuals will also have to think more about longevity risk, which they would have formally been insured against in an occupational DB scheme. This means that individuals and policymakers will need to pay greater attention to the workings of the annuities market. .

Annuity rates determine the amount of retirement income that a pensioner can be guaranteed for life for a given pot of retirement savings. DB schemes in effect fix the annuity rate at the point in time at which an individual joins an employer's pension scheme. In DC schemes the annuity rate is typically set at the date of retirement. So people moving to DC schemes will face greater uncertainty about the amount of pension income they can expect because they cannot be sure what annuity rate they will face.

DC scheme members have some influence over the annuity rate they face because if they believe that the rate they confront at retirement is particularly low they can opt to draw down some of their retirement savings as income and delay annuitisation until 75. This may allow them to circumvent the problem of fluctuating annuity rates, but it can also exacerbate the problem of 'adverse selection' in the annuity market – in which people who expect to live longer (for reasons that the annuity provider cannot screen for in advance) are more likely to take advantage of a given annuity rate than people who expect to live less long. Realising this, the annuity rates providers offer are likely to be less attractive than those which would be available if individuals and providers had the same information about prospective life expectancy.

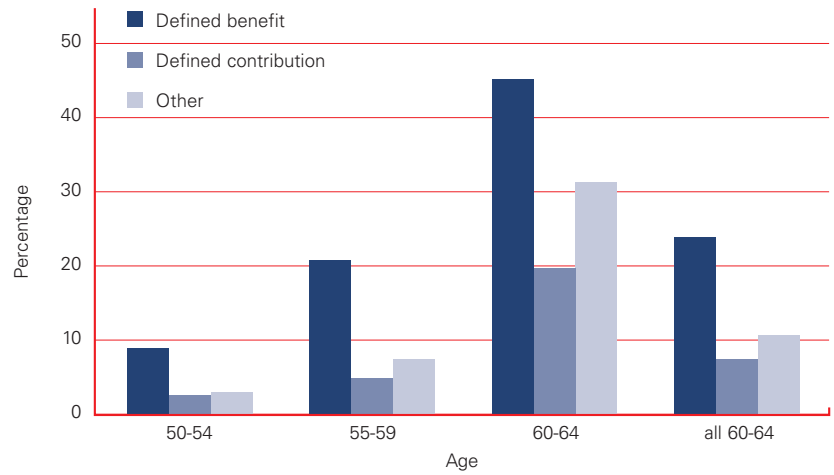
To protect against this problem, and to prevent annuity rates from becoming too unattractive, further compulsion over annuity arrangements might have to be imposed by the government. For example the problem of adverse selection would be reduced if individuals were only allowed to purchase price indexed annuities or if the age at which annuities have to be purchased was reduced from 75. Any gains in terms of reduced adverse selection would have to be traded off against the cost to consumers of reduced flexibility. Poterba and Finkelstein (2002; forthcoming) examined the 'cost' of adverse selection in the UK annuity market as measured by the expected value of an annuity income stream relative to the cost of purchasing it (known as the moneys worth ratio). They found that it is smaller for voluntary annuities than compulsory ones, although even for compulsory annuities it remained significantly below unity.

Adverse selection is less of a problem for DB schemes, because the annuity rate is determined earlier in life when the individual is not significantly better placed than the pension provider to predict their own life expectancy. In the future we may see individuals in companies and occupations with relatively low job mobility realising that this pooling of risk is attractive and adopting DB schemes in greater numbers, albeit with a more flexible contribution and benefit structure.

The shift from DB to DC will also affect the incentives people face to retire at particular times. The current rules in final salary DB schemes tend to provide an incentive for early retirement and clearly provide little incentive for individuals to scale down their work intensity at older ages (as this would imply that the salaries they retire on would be lower). Proposals to allow individuals to draw a private pension and continue to work for the same employer should lead to an increase in gradual retirements (Emmerson and Wakefield, 2003). DC schemes remove the link between retirement income and final salary and are therefore likely to encourage later retirement ages and progressive retirement.

This seems to be borne out by the fact that men aged 50 and over who are covered by a DB pension scheme are more likely to be retired than those in DC schemes (including those with personal pensions), as shown in figure 3.2.

Figure 3.2 Percentage of men aged 50 to 64 who report being retired, by pension type and broad age group, 2002



Source Banks and Casanova (2003) using 2002 English Longitudinal Study of Ageing

Note: 'Other' category includes those with both types of pension, and those with unknown type.

Figure 3.3 provides more striking evidence, showing that a much higher proportion of working men aged between 50 and 59 covered by DB schemes expect not to be working beyond the age of 60 than those in DC schemes. These correlations could in principle be driven by other factors (such as the fact that DB pension contributors amongst these age groups are wealthier and therefore on those grounds might be likely to retire earlier), but the results are also supported by econometric analysis of the retirement incentives in DB plans in a framework that controls for wealth and other correlated variables.

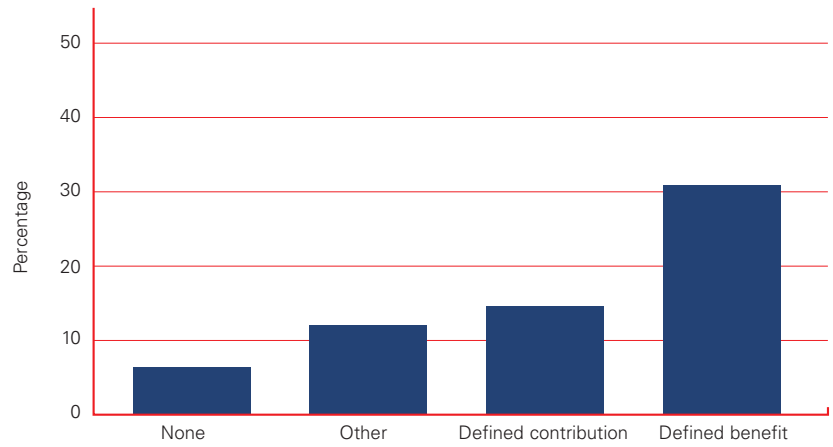
We have already noted that the structure of final salary schemes appears to enhance early retirement. But we can be more precise. The structure of private schemes affects retirement incentives in two offsetting ways: first, there is a wealth effect whereby a higher *level* of pension savings encourages early retirement as people are satisfied at an earlier age that they can sustain a given standard of living thereafter, and, second, there is an accrual effect that delays retirement because a further year's earnings *growth* will increase the final salary and therefore pension income throughout retirement. In other words, you get increased benefits by working another year.

Blundell, Meghir and Smith (2002) quantify these effects using the pension and retirement transition information in the British Retirement Survey. This data shows that people without a private pension are less likely to be in work in their early 50s than those with a private pension (in other words, that there is a larger exit to retirement at early ages among those without a private pension). However, for people still in work in their late 50s, the pattern reverses – those with private pensions begin to leave the labour market at a more rapid rate than without.

In future the shift from DB to DC pensions might be expected to lead to later retirements, other things being equal. With final salary pension schemes the accrual effect described above will depend on expected real earnings growth, whereas in a DC pension scheme it will depend on the expected investment return and the increased annuity rate that arises from deferring the annuity decision. As older individuals often receive low real wage growth this means that the expected accrual in a final salary pension scheme can be very low, particularly if individuals have already accrued their maximum years of entitlements due to long tenure in the scheme. Typically, therefore, the year on year accrual of pension income benefits is greater in a DC scheme. In addition, private sector DB schemes have historically been particularly likely to encourage early retirement by using surpluses to offer individuals generous early retirement terms.

The increasing importance of DC pensions is just one change that may lead to later retirements in the future. In addition there is the increase in the women's state pension age (discussed in box 2.1) and the potential for a changing view of older workers in the workplace. Taken together they suggest that the shallow rise in employment among older individuals in recent years (Disney and Hawkes, 2004) could continue and may even gather pace.

Figure 3.3 Percentage of men aged 50 to 59 who report a low chance of being in employment after age 60, by pension type, 2002

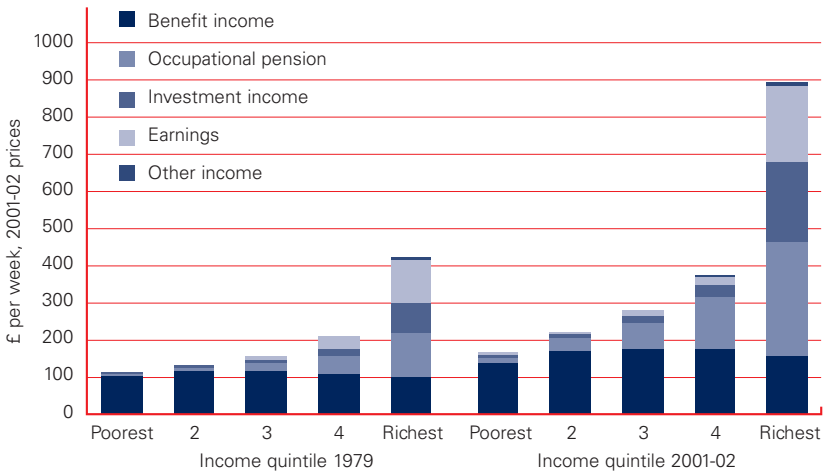


Source Banks and Casanova (2003) using 2002 English Longitudinal Study of Ageing

4 Financial security for pensioners?

Today's pensioners are relatively well off in comparison to their predecessors of recent years. Figure 3.1 shows that pensioner couples are on average richer now than in 1979, primarily as a result of increased income from private pensions and investment income (including personal pensions). These increases have been concentrated in the upper income deciles, with the result that income inequality among pensioners has also increased over the period. In all parts of the income distribution, state benefit income (including state pension income) is higher in real terms than it was 20 years ago. Consequently, looking across the income distribution as a whole, there are fewer pensioners in the lowest income groups than there were (see Goodman, Myck and Shephard, 2003).

Figure 4.1 Components of gross pensioner couple income, by income quintile, 1979 and 2001–02



Source Tables 17 and A17 of Department for Work and Pensions (2003)

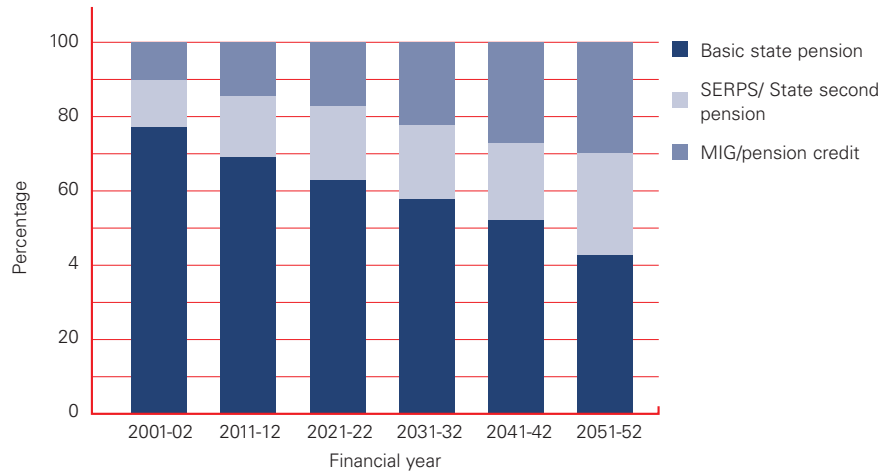
But the key issue for pensions policy is not the welfare of today's pensioners – although important to the individuals concerned, that is a relatively straightforward question of how much income to distribute from today's workers to today's pensioners through the tax and benefit system. Of greater strategic and long-term importance is how changes in the state pension system, private pension provision and labour market opportunities for workers of all ages might be expected to impact *future* pensioner's incomes and economic well-being. This will depend in turn on how current working age households are altering their behaviour in response to these developments. The circumstances and experiences of today's 'golden generation' can offer us only a limited guide to the adequacy of likely retirement incomes for future generations.

As we noted in section 2, the state pension system is set to become less generous over time, relative to the incomes of people in work. In the absence of further reforms, future pensioners as a group will have to find more retirement income from sources other than state pensions if their living standards are to fall no further behind the working population than those of today's pensioners. Increased targeting of total state support for pensioners (ie including means-tested benefits) means that the incentive to generate extra private income for retirement will differ for people of different lifetime incomes. So how important will the growth of means-testing be? If we assume that the government meets its aspirations to increase the Basic State Pension in line with prices and the means-tested Pension Credit in line with earnings (say two percent a year in real terms), and that private pension income grows in line with average earnings, the proportion of people aged 65 and over entitled to the Pension Credit would rise from 52 percent in 2003 to around 73 percent in 2025 and 82 percent in 2050 (A further discussion can be found in Clark and Emmerson 2003).

As Figure 4.2 shows, the Department for Work and Pensions estimates that if the government meets its aspirations the proportion of public spending on financial support for pensions accounted for by the means-tested MIG/Pension Credit will rise from around ten percent to 30 percent over the same period. Total public spending on support for pensions would remain roughly constant as a share of national income.

But this implicitly assumes that the growing importance of means-testing does not deter private savings to a sufficient extent that private retirement incomes begin to grow less quickly than earnings. If that were to happen, the number of people entitled to the Pension Credit might rise even more quickly. This could imply that total public spending on support for pensioners might need to rise as a share of national income merely to keep aggregate incomes in retirement stable – undermining the impression from the official data that tax increases will not be necessary to finance state support for pensioners.

Figure 4.2 Projected composition of state spending on pensioners, 2001–02 to 2051–52



Source Figure A3.1 of Department for Work and Pensions (2002)

Note: Spending on Winter Fuel Payments and free TV licenses for households containing an individual aged 75 or over excluded.

Clearly, if state support to pensioners is less generous, then maintaining the same level of total retirement income will require individuals either to provide more retirement income for themselves (through increased private saving) or to work longer and reduce their time in retirement. Outcomes for current pensioners tell us little about the size of the adjustments required, but econometric models of behaviour that relate individuals' choices to the circumstances that they faced can be applied to data on current pensioners and older workers. These models can then be used to estimate behavioural parameters that, if assumed constant across cohorts, (or assumed to change in a way that can be predicted) will give us some idea of the magnitude and importance of potential adjustments for future cohorts when faced with differing circumstances.

Reforms to state pensions, to private pensions, and to other benefits for older individuals (such as disability and means-tested benefits) change both the level of people's life-time wealth and the relative 'price' of consuming resources when working as opposed to when retired. These income and substitution effects will affect people's saving and retirement decisions in the same way as the wealth and accrual effects discussed in section 3.

Before examining how the changing structure of pension provision might affect savings and retirement behaviour, it is worth noting that pension reform is by no means the only policy influence. For example, in recent years we have seen important changes in the generosity of disability benefits for those retiring early from occupations covered by private schemes, as well as changes in the tax treatment of such schemes. Both these developments point to lower incentives overall to retire early for those covered by private provision in both the public and the private sectors.

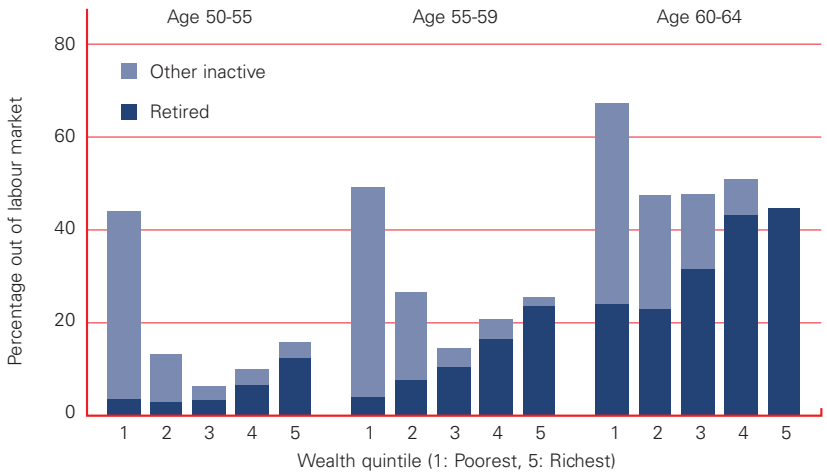
So how will the evolution of pension provision affect people's savings behaviour? In what follows we take three broad sections of the lifetime income distribution and consider the evidence in these domains for each of these groups in turn.

High incomes

The Basic State Pension will form only a small part of the retirement income of people on high lifetime incomes. SERPS will also be relatively less important to their retirement incomes – in particular given that the majority of high earners will have contracted out into private pensions. For these individuals, the most important changes will be the shifts in occupational pension provision, discussed in section 3.

Richer individuals can probably be relied upon to alter their labour supply and savings behaviour in the face of changing circumstances. Figure 4.3 shows that the wealthy tend to retire early. By age 55-59, one in five of the richest 40 percent of the population have retired, and the proportion is double that amongst the 60-64 year olds. The evidence on retirement incentives discussed above suggests that these individuals have responded to a combination of wealth effects and the incentive effects inherent in the structure of private pensions. As a result, we can probably expect them to adjust their behaviour if their circumstances change in the future. As regards savings behaviour, the richest groups are also likely to be financially literate and will probably make appropriate retirement saving adjustments – evidence from the English Longitudinal Study of Ageing (see Banks, Karlsen and Oldfield (2003) Table 3A.18 and 3A.19) shows that many fewer members of the highest income and wealth groups expect that their incomes in retirement will be insufficient to achieve their desired living standards than is the case for the lower wealth groups.

Figure 4.3 Percentage economically inactive, split by whether retired or not retired; by age and wealth quintile: men



Source Banks and Casanova (2003)

Note: Calculations from English Longitudinal Study of Ageing, 2002 microdata.

Lowest incomes

Savings and retirement decisions at the other end of the wealth distribution are somewhat different. Figure 4.3 clearly shows that very large fractions of the lower wealth groups are already out of the labour market in their fifties. The obvious explanation is economic inactivity as a result of poor health, and associated movements onto disability benefits (Blundell and Johnson, 1998). This is confirmed by further evidence from the English Longitudinal Study of Ageing (see Banks and Casanova (2003)) and by Disney, Emmerson and Wakefield (2003) who show that deteriorations in health do cause movements out of the labour market for older individuals. Whilst a key issue for this group may be how to raise lifetime incomes, and particularly work opportunities in later life, it is not clear that the likely evolution of the pension system will complicate their labour supply decisions very much.

Relative to incomes in work, state support in retirement is most generous for the lowest income groups. As such, and particularly in conjunction with low absolute levels of life-time income and the disincentives to save inherent in means-tested benefits, the decline in the generosity of state support and the growth of means-testing is unlikely to prompt much of a change in savings behaviour either.

Low to middle incomes

So what about the remaining part of the income distribution – the lower middle and the middle itself? There is evidence that we should expect some change in retirement and labour supply decisions among these groups, given appropriate opportunities to work longer. The models of Blundell, Meghir and Smith (2002) and Disney and Tanner (2002), in conjunction with international evidence from similar models in other countries (see Gruber and Wise (2004)) suggests that changing financial incentives will lead to some changes in retirement outcomes. But evidence on likely changes in savings behaviour is less clear.

It is in the middle income groups where both public pension reform and changes to private pensions may have their biggest effects. And indeed it has been the part of the income distribution on which policymakers' attention has been focussed most clearly in recent years, for example through the development of Stakeholder pensions (Department of Social Security, 1998). The increased targeting of benefits will lead to reduced incentives to save for some, since state benefits will be withdrawn if private savings increase. In addition, as discussed in section 3, the reduction in coverage of DB pension schemes means that individuals may face greater exposure to longevity and investment risk that was previously formally borne by employers.

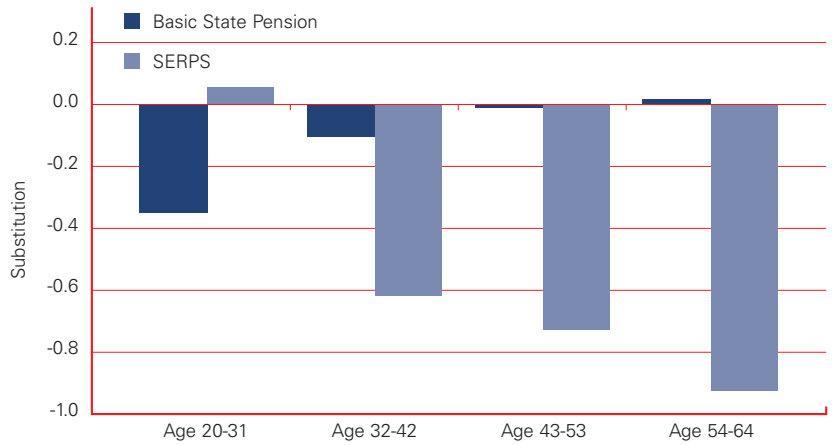
The portability of DC plans means that workers with high job mobility will receive a bigger retirement income for a given amount of contributions in a DC scheme than a DB. It follows that employment and pension dynamics will also be an important determinant of the effects of reform on people's behaviour. Banks et al (2002) show that a significant proportion of people are only occasional members of a private pension scheme, so that many of those who are not currently in a scheme were in one at some point in the past. Among those who were not members of a private pension scheme in 2000, 31.7 percent of 'low' earners, 56.4 percent of 'mid' earners and 74 percent of 'high' earners report being a member of one in at least one of the previous eight years (1992–99). Among those who were members of a private pension scheme in 2000, 73.7 percent of 'low' earners, 45.6 percent of 'mid' earners and 24.8 percent of 'high' earners report that they were not a member of one for all of the years 1992–99 (but may have been for some of these years).

To summarise, we would expect the savings and retirement behaviour of the richest groups to be little affected by the changing structure of the state system, but more by the movement from DB to DC private provision and the reallocation of risk that implies. The savings and retirement behaviour of people on the lowest incomes is unlikely to be affected by changes to either the state or private systems. The most interesting and complex effects are in the middle, where we might expect people to work longer and retire later if labour opportunities allow, and to be more mobile between jobs, but where offsetting incentives implied by greater means-testing make it hard to predict if people will on aggregate save more or less for their retirement.

Ultimately, however, saving more and working harder or longer are both just means of providing more consumption in retirement. It is important therefore to look at the extent to which consumption levels have been affected by pension reforms in the past when thinking about whether individuals will save more or less in the face of changes to public and private pensions.

Attanasio and Rohwedder (2004) look at the extent to which the consumption behaviour of past cohorts during their working lives was affected by the announcement of the successive pension reforms through the 1970s and 1980s. Exploiting the fact that these reforms hit different cohorts at different ages, they estimate the degree to which public pensions (in various forms) crowd out private saving at different points in the life-cycle. Their evidence, presented in Figure 4.4, suggests that middle-aged households offset around two-thirds of the reduction in SERPS generosity through other forms of saving. The offset was more complete for older households. Households did much less to offset reductions in the generosity of the Basic State Pension, with only young households demonstrating any response to the reforms. One possible explanation is that people may not have understood the magnitude of the reform, because it largely took the form of changes to the indexation mechanism.

Figure 4.4 Estimated substitutability of private saving for public pension wealth, by type of public pension wealth and broad age band



Source Attanasio and Rohwedder (forthcoming)

At the other end of the life-cycle, Banks, Blundell and Tanner (1998) examine how consumption changes around the time of retirement. The fact that consumption falls in retirement is well known. But this does not necessarily mean that individuals had not saved enough – some part of the drop in consumption may be planned. By modelling individuals' life-time consumption plans, around two-thirds of the drop in consumption growth at retirement that occurred for those cohorts retiring in the 1970s, 1980s and early 1990s can be explained within the context of an optimal consumption plan. The residual third remains a puzzle, with one possible explanation being that individuals had not saved enough.

Both these studies suggest that people will adjust their savings or retirement behaviour to offset some of the expected impact of changes in the public pension system on the amount that people plan to consume in retirement. Why people do not offset the entire impact remains a topic for future research. Of course, there are always caveats to such analysis:

First, it may not have been possible to pick up the full behavioural response to past policy changes among the 'golden generation' because the generosity of the pensions system and the favourable trends in real earnings growth and asset markets that they enjoyed meant that the economic pressures they faced were never extreme enough to offer an accurate guide to how a future generation would cope when facing genuinely inadequate future resources.

Second, we have implicitly assumed that the rate to return to retirement saving will be unaffected by the demographic and economic changes we have described. If, in the future, many retirees try to sell the assets they have accumulated to fund their retirement incomes to a small number of workers/savers, the price of these assets (and therefore their realised rate of return) would go down. This in turn would reduce retirement incomes. Using a relatively simple general equilibrium model Attanasio and Violante (2000) estimated that in a purely private pension system the welfare loss to baby boomers caused by falling interest rates would be equivalent to reducing annual consumption by eight percent. In practice, the impact might not be as dramatic if both labour and capital are mobile.

What can certainly be said, however, is that the movement towards further individual pension provision that has occurred in Britain means that retirement income outturns for future cohorts of pensioners will rely much more on individual choices as opposed to arrangements put in place by either the state or the employer. In this scenario the value to individuals of a transparent and stable financial planning environment is obvious.

As the analysis in this section has pointed out, we might expect the richest segments of the population to update their choices and behaviour to adjust to reforms and changing circumstances without much need for intervention by policymakers. At the bottom of the lifetime income distribution, choices with regard to savings and retirement behaviour are relatively limited and so there may be relatively little need for analysis of the impacts and consequences of pension reform.

It is in the middle of the life-time income distribution where policy challenges are most complex and where the need for further analysis is greatest. Evidence to date suggests that post-golden generations may alter their retirement and savings behaviour significantly to provide alternative sources of retirement income as state support becomes less generous. The possibilities for future adjustments in retirement behaviour should further increase as the movement from DB to DC continues. Nevertheless, even previous cohorts have not fully adjusted to pension changes in the past and a detailed analysis of how they do could help us predict how subsequent cohorts will respond to the changing incentives they will face.

5 Summary: Can we achieve security for all?

The analyses in this paper confirm that it is no easy task to design a pension system that can guarantee financial security to individuals, to employers and to the state simultaneously. Deciding how best to proceed is complicated by the fact that what constitutes an effective pension system may differ for people at different points in the income distribution and between different cohorts of future and current pensioners.

But we can draw a numbers of general conclusions:

With regard to the sustainability of state-financed support for pensioners, the UK appears at first glance to be relatively fortunate compared to other countries. Despite the prospect of a significant further ageing of the population, official projections suggest that the cost of the state pension system will remain broadly stable as a share of national income. But the picture may not be quite as benign as this suggests. The UK system appears as sustainable as it does because it will become increasingly less generous and increasingly reliant on means-testing. If people respond by reducing private savings, this could push a greater burden onto the state.

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 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.

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 savings and retirement decision 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, while 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 tax payers. The most important group are those people who are or expect to be on low to middle incomes – who are at the interface 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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