

The Costs and Benefits of Population Ageing

Abstract

There is widespread agreement that the ageing of the populations of the industrialized countries, which is now under way and which looks set to continue well into the next century, will be costly. The recent OECD (Organisation for Economic Cooperation and Development) report on population ageing summed up the consensus by noting that "countries will face growing fiscal burdens as expenditures increase and the working age population shrinks or remains constant in size" (OECD 1988a).

There is no consensus, however, about what the price of population ageing will be, who will pay, and whether there will be any compensating benefits. What items should be included on the cost/benefit balance sheet of population ageing, and which should be written in red and which in black, are still issues for serious speculation. In consequence, most discussion of the cost of population ageing focuses on the costs that will be incurred by public pension and welfare systems. These costs are obviously important, but they make up only part of the overall account. In this paper I will first suggest that we need to consider a range of other potential costs associated with population ageing. Then I will go on to evaluate the scale and incidence of these costs, before turning to consider the potential social benefits of population ageing. Any assessment of costs and benefits is necessarily

contingent on future social and economic developments, and the concluding section will identify the opportunities for policy innovation opened up by the ageing of the developed nations.

Defining the costs of ageing

Most discussion of the costs of population ageing has dwelt on the cost of projected public pension, health and welfare provision for the population over 65, which is the most common pension entitlement age in the developed economies. These public costs are undoubtedly important because of both their current scale and their projected growth, but an over-concentration on public sector provision can produce a very limited and limiting concept of costs, for at least four distinct reasons:

1. There are potential public costs that arise from private responses to both individual and population ageing. It has been established that the average age of production in developed countries is below the average age of consumption - in other words: resources are transferred from the young to the old (Ermisch 1989). It is the projected scale of this transfer through public welfare and pension systems in the future that has motivated much of the current concern about intergenerational inequity. However, changes to public transfer systems need not substantially alter the scale of the transfer, since private transfer systems can be just as effective. A deliberate and predictable reduction in the scale of public transfers towards older people in the next two or three decades, will increase the incentive for people now in middle age to accumulate more long-term assets. This will enhance the already obvious trend for the newly retired to be wealthier than preceding cohorts of retirees, and will result in a shift in the age distribution of asset ownership in

industrial societies.

Little consideration has been given to the question of whether or to what extent changes in the age distribution of asset ownership will affect either the net saving rate or the risk preference of investors. However, demographically-induced shifts in saving and investment patterns have the potential to influence the long-term rate of economic growth, so it is clear that public costs of population ageing may derive from private financial decisions.

2. The public costs are not confined to expenditure on pension and welfare provision. Population ageing affects both the proportion of the population that is of prime working age, and the average age of this working population. Some thirty years ago in Britain, the Royal Commission on Population (1949) asserted that an older population is likely to be less dynamic, less innovative and less productive than a younger one. If this is true to any degree, then population ageing will have a detrimental impact on the long-term growth potential of any economy. This is clearly a public cost, but one which is not articulated through specific tax or benefit structures.
3. There are likely to be large private costs in population ageing, borne by an increasing number of carers providing non-marketed services to elderly people. Although the public costs of welfare services can be curtailed by limiting entitlements, needs are not affected by these administrative manoeuvres. Some people may be forced into a role as carer because of the absence of any alternative support for an infirm elderly person whilst others may positively choose to assume the role. But whether it is the sentiments of devotion and compassion or desperation and compulsion which drive the carer, there is a cost to the carer in terms of time and income foregone. Even

altruism has its opportunity cost.

4. Finally, any comprehensive analysis of the costs of population ageing should take into account the costs to elderly people themselves. Much of the literature on population ageing presents the expanding cohorts of elderly people as beneficiaries, drawing heavily on welfare transfers from poorer younger generations. However, if concern about the economic cost of ageing prompts any sort of policy response which curtails the welfare entitlements and income of retired people, then clearly these groups will bear some of the overall cost.

Any analysis of the costs of population ageing that concentrates exclusively on public pension and welfare costs will, therefore, present a partial and biased account. With this in mind, the next section of the paper will attempt to present an evaluation of both the scale and the incidence of the wide range of potential costs that will arise from the demographic restructuring of the next thirty or forty years.

Assessing the costs of ageing

Demographic projections

The first step in this assessment must be to develop some appropriate population projections. Two distinct sets of projections have been published by the International Monetary Fund (IMF) and the Organisation for Economic Cooperation and Development (OECD). The OECD projections assume that current levels of fertility will prevail in all countries until 1995, after which there will be a gradual convergence to a total fertility rate in all countries of 2.1 by 2050, and they further assume that life expectancy at birth will increase by 2 years for each sex between 1983 and 2030 and thereafter will remain constant (OECD 1988a). The IMF projections instead take the different national

demographic projections for the Group of 7 countries, which all anticipate an increase in domestic fertility rates of between 8% and 16% from the low levels experienced in 1980. Mortality rates are generally expected to improve more rapidly than in the OECD projections except in the case of France (Heller et al. 1986). The resulting population projections are given in table 1.

These two sets of projections of the size of the elderly population are reasonably consistent, generally differing by 10% or less. It should be noted, however, that the numbers are particularly sensitive to the mortality assumptions about which there is considerable uncertainty. The IMF projection for the U.S., for instance, assumes an annual improvement of 0.9% in mortality, although the actual annual rate experienced in the 1970s was 1.7%. If future medical advances allow a major increase in life expectancy at later ages, then the impact on the number of older people will be dramatic. According to the OECD, a gain of ten years in life expectancy at age 60 between 2000 and 2030 would increase the proportion of the U.K. population over 65 in 2040 from 20.4% (the median projection) to 26.4%, with the proportion over 80 rising from 5.1% to 10.3%. It is obvious that mortality improvements of this magnitude would substantially increase the cost of public pension and welfare provision if the entitlements of these public systems do not

change and if age-specific levels of morbidity and disability remain constant. If, however, health status at older ages also improves substantially, then public health and welfare costs would rise less rapidly. The large degree of uncertainty attached to all projections of the morbidity and mortality of older people (see papers by Maddox and by Ford, this volume) must render the underlying demographic projections liable to a substantial margin of error, so all assessments of future costs must be treated with some degree of scepticism.

Public costs of public provision

Even if we use only the median fertility and mortality projections, there is still great scope for disagreement about the cost of population ageing for public pension, health and welfare systems. Pension costs, for instance, are unlikely in the future to be determined simply by demographic developments. In the U.K., the expansion of the elderly population and slight decline in the working-age population by the third decade of the next century is expected to change the ratio of National Insurance contributors to pensioners from 2.3:1 to 1.6:1 (*Population, Pension Costs and Pensioners' Income* 1984), while the share of pension expenditure in national income will rise from 7.7% to 10.6% (OECD 1988b). If average real pension benefits remain

Table 1: Index of number of pensioners*

	1980	2000 IMF	OECD	2010 IMF	OECD	2025 IMF	OECD
Canada	100	142	130	169	196	272	300
France	100	118	116	128	125	147	158
W. Germany	100	112	106	128	120	138	126
Italy	100	123	113	132	125	148	140
Japan	100	178	181	226	224	238	236
U.K.	100	103	100	109	101	130	125
U.S.	100	136	125	153	139	230	207

* Note: IMF projections are based on the number of people of pensionable age, OECD projections are based on the number aged 65 and above.

unaltered, the U.K. would need an average annual compound growth in real earnings per worker of 0.5% to finance additional pension expenditure; the comparable figure for the U.S. is 0.9%, for West Germany 1.2% (OECD 1988a). This may seem a small sacrifice of future income growth on the part of workers in order to pay for the growing number of pensioners. But it cannot be assumed that pensioners will be content with a pension level that remains constant in real terms if average real earnings are rising. If the ratio of pension expenditure to national income is kept constant, then in the third and fourth decades of the next century the U.K. would need real national income per worker to grow at 1.2% per annum to cope with the demographic pressure.

Even this figure may be an underestimate of future costs because we know that in the recent past social expenditures in the industrialised countries have generally grown at a faster rate than national income. In the U.K., the income elasticity of social expenditure was 2.2 for the period 1960-75 and 1.8 for the years 1975-81 (Heller et al. 1986). Since the potential electoral power of older people will increase as their numbers grow, so they may be able to exert political influence to maintain a high income elasticity for those elements of social expenditure directed towards older age groups. The extent of the potential can be seen by looking at the demographic projections: in the U.K. today people over 50 constitute 41% of the electorate, but by 2025 they will hold the balance of electoral power.

Similar uncertainty exists over projections of the public health care and welfare costs of population ageing. Children and elderly people are the major consumers of health and personal social services and to some extent the rise in the number of older people will be compensated for by a decline in the number of children. The trade-off, however, is not a simple matter of counting heads. In the U.K., children aged 0-4 on average cost the hospital and community health service twice as much per annum as does an adult

aged 16-64, but people aged 65-74 cost almost four times as much as a working-age adult and people aged 75 and over cost over nine times as much (Johnson and Falkingham 1988). Population ageing will inevitably increase public health and welfare costs, although public expenditure on education is expected to fall. The IMF has calculated that in the U.K., the percentage of government medical care expenditure directed to the elderly population over 60 will rise from 42.1% in 1980 to 49.4% in 2025 (Heller et al. 1986). Such estimates depend crucially upon assumptions about the rate of growth of real per capita health expenditure. If this expenditure is fixed at its 1980 level in real terms, the demographic restructuring will require a growth of real earnings per worker of 0.34% per annum in the U.K. to finance the extra expenditure. But if the per capita health expenditure grows at the real rate experienced in the decade 1975-84, real earnings per worker would need to grow at 1.63% per annum (OECD 1988a).

While there is uncertainty about the scale of future increases in public pension, health and welfare liabilities, there is little doubt about who will pay. In Britain, as in almost all the industrialised countries, publicly provided benefits and services are funded on a "pay-as-you-go" basis in which the current year's payments are funded from the current year's contributions. Despite the common use of the term "social insurance" to describe these public systems, in fact they have little in common with commercial insurance practices in which current contributions are used to build up a reserve fund from which future liabilities will be paid.

Public systems do not have to be unfunded; in the United States the Social Security amendments of 1977 and 1983 abandoned pure pay-as-you-go financing and this should lead to the accumulation of a social security surplus of \$2 trillion (1988 prices) by 2030 (Aaron et al. 1989). But there has been no comprehensive movement among OECD countries away from an unfunded system, and this lack of funding can

cause problems when the age structure of the population changes rapidly. Keyfitz (1985) has shown that a sharp decline in fertility will have a substantial effect on the expected rates of return different generations will receive from an unfunded social security system. A larger number of pensioners in the future will increase the cost of social security to future generations of workers even though their anticipated benefits will remain constant. Hagemann and Nicoletti (1989) have estimated the ratio of expected lifetime benefits to lifetime contributions for men and women born at different dates in several OECD countries (see table 2) assuming pay-as-you-go financing.

In the table, a ratio greater than 1.0 indicates that the present value of anticipated benefits is greater than the present value of contributions. It is clear that the rate of return is better for women than for men (largely because women live longer, but partly because they receive pensions at a lower age than men) and that the rate of return for more recently born cohorts tends to be lower than for older cohorts. The positive returns for Japanese males born up to 1965 are a consequence both of the immaturity of the Japanese pension system and of the relatively late onset of fertility decline. The slightly U-shaped pattern for U.S. males is a consequence of the social security reforms which have improved slightly the expected rates of return for more recently-born cohorts (though they remain significantly negative). The declining returns in the West German system for the more

recently-born cohorts are probably representative of the broader West European experience.

These simulations, contingent as they are upon a number of important assumptions about future contribution and growth rates, do indicate that for the "transitional generations" born in the second half of the twentieth century, welfare states involve very significant costs. These welfare costs, rather like the future environmental cost of today's pollution, challenge conventional assumptions about social equity, which assert that it is wrong to make future generations pay for decisions to which they were not party. David Thomson (1989) has suggested that "what societies must and will find themselves discussing soon is why the young adults of today can be expected to play the part assigned to them by history, that of willing funders of a lifetime welfare state which they themselves will never inhabit. Upon a resolution of this hinge all questions concerning the elderly."

It is undoubtedly true that, in the absence of major reform of pay-as-you-go social insurance systems, the financial burden of a growing number of older people in an ageing world will fall onto the possibly unwilling shoulders of working-age adults. Altering pension formulae, retirement ages and indexing arrangements can all reduce these costs, but this will not alter the underlying arrangement whereby today's workers support today's pensioners. Whether the cost will be trivial relative to future growth rates of national income or whether it will be

Table 2: Social Security benefit/cost ratios

Year of birth	U.S.		Japan		W. Ger	
	M	F	M	F	M	F
1970	0.63	0.88	0.96	1.21	0.76	1.02
1965	0.62	0.89	1.10	1.42	0.83	1.14
1960	0.61	0.87	1.26	1.62	0.85	1.18
1955	0.60	0.86	1.46	1.89	0.84	1.17
1950	0.60	0.86	1.73	2.24	0.85	1.18
1945	0.61	0.88	2.04	2.66	0.86	1.19

oppressive, depends as much on macro-economic developments as it does on the specifics of social security reform. Political pressures also have a role to play; even small differences in the projected income elasticity of social expenditure can have a substantial impact on long-run costs. When we consider the incidence rather than the size of social security costs, however, we can be much more certain about which generations will receive a negative return from their enforced participation in the social insurance system. It is clear who will pay, the only question is how much.

Public costs of private provision

The apparently unfair nature of this compulsory intergenerational transfer has prompted a search for a more equitable way of providing for the social costs of population ageing, and a popular solution seems to be fully funded private pensions. The privatisation of pensions, health care and welfare services appears to ensure that intergenerational transfers are minimised. Each individual would accumulate a personal fund during working life which s/he could draw on during sickness or in retirement. If individuals or families wished to transfer resources across generations through gifts and bequests they would be free to do so, but they would not be forced to do so as at present. Furthermore, the increase in national saving rates that would result from the shift to funded private pensions would raise the rate of economic growth so that by the third decade of the next century when the population aged over 65 reaches its peak, the GNP would be substantially higher than would be the case under pay-as-you-go financing. The economy would better be able to afford old age, and the burden of cost would no longer rest on the shoulders of the young.

There are, however, some obvious objections to the privatisation of pensions and social security, such as the difficulty of

achieving the redistributive goals of social insurance and of providing the security against inflation that exists with state schemes. Furthermore, the ability of funded private provision to prevent the inequity associated with compulsory intergenerational transfers may be severely limited for several reasons. First, it takes many years for a fully-funded scheme to mature, so even if it were introduced tomorrow for all new cohorts of workers, it would not eliminate the existing problems created by relatively large cohorts today aged over 45 who already have substantial social security entitlements.

Second, private savings will not increase the growth rate of the economy if they are invested in government stock. An investment in government stock is an investment in the future capacity of workers to pay taxes in order to honour the government debt: this is functionally equivalent to people relying on future workers to pay taxes that are redistributed through an unfunded state pension scheme. A move from pay-as-you-go pensions to private saving invested in government stock (issued, for instance, to finance a budget deficit) therefore has no impact at all on the future fiscal cost of supporting an ageing population or on the level of intergenerational transfers.

If the accumulated assets are invested in the domestic economy, then growth rates will be enhanced. However, there are grounds for believing that domestic investment opportunities may not be taken up. Over fifty years ago, during the period of inter-war concern about population stagnation in Britain, J.M. Keynes (1937) suggested that a declining population might suffer from low levels of domestic investment, because the capital-deepening investment opportunities available (increasing the per capita stock of capital) tend to have lower rates of return than the capital-widening investments possible in countries with expanding populations (Ermisch and Joshi 1987). Since many less-developed countries will, over the next thirty years, experience substantial growth in their working populations and

considerable falls in their overall dependency ratios (because of declining fertility), wage costs in these countries will be low and rates of return on investments are likely to be high. High returns from overseas investments may sustain consumption potential in the more developed economies, but a low level of domestic investment could create problems of unemployment. Again the interests of rich retired *rentiers* would be in conflict with those of young poor unemployed workers.

There is a further problem with a heavy investment of pension funds in overseas assets. The simultaneous ageing of all western populations around 2020, when the "baby-boomers" move into retirement, will force western pension funds to capitalise on their assets at the same time in order to honour their pension contracts. With all asset holders trying to sell, the capital value of assets will fall, and the funds may find that their liabilities are greater than their assets. Private pension funds have led a charmed life over the last thirty years; because they have been expanding, the number of contributors (and hence the value of the reserve funds) has increased far faster than the number of beneficiaries (and the value of pension payments). It has been easy to honour pension promises despite some substantial changes in asset values and inflation rates because of the relative youth of pension scheme members. But when the private pension schemes mature in the second and third decades of the next century, when the value of pension payments exceeds the value of current contributions, relatively small changes in asset values could make the funds actuarially insolvent. If asset values decline, the only solution is to increase contribution rates - again it would be the young workers who would have to pay more for the underfunded pensioners.

Even if all these possibilities are discounted, and the growth of private funded pension schemes does provide a positive stimulus to domestic investment, it is conceivable that the overall level of domestic investment may still fall. This is because,

according to the life-cycle theory of savings, older people tend to dissave, and therefore an increase in the proportion of elderly people in any economy will, *ceteris paribus*, reduce the net saving rate. IMF simulations indicate that demographic change alone could reduce private savings by between 5 and 12 percent of the GNP for the group of 7 countries between 1980 and 2025 (Heller 1989). If true, this would again mean that younger workers would suffer by being deprived of the level of investment (and growth) enjoyed by their forebears. This conclusion has, however, been challenged by Aaron et al. (1989), who find for the United States that savings rates for retired people are little below those for people aged 45-64, and are clearly above those for the 25-44 age group.

On balance it can be seen that a shift from pay-as-you-go public pension and welfare provision to funded private provision will not automatically remove or prevent the intergenerational transfers from young to old that appear to be an inevitable consequence of population ageing within our existing welfare systems. Aaron et al. argue that it would be best to convert public social security systems from pay-as-you-go financing to full funding, since this would preserve the liberal redistributive aspects of social security and stimulate investment and so boost growth rates. They do not, however, explain how a public social security fund could be kept distinct from other elements of public finance and free from political interference for half a century. The political pressures to raid the fund in order to boost current pensions may be irresistible when those already drawing or soon-to-draw pensions make up the majority of the electorate.

Work-force costs

A further cost of population ageing derives not from the impact of pension and welfare financing on tax, saving and growth rates, but

from the impact of demographic change on the size and performance of the labour force. Since World War II, all the industrialised countries have experienced positive, though declining, population growth rates. This population growth has ensured that labour markets have been continually restocked with young, recently-trained workers. However, the below-replacement fertility rates of the 1970s and 1980s, which are not expected to increase substantially in the immediate future, suggest that most developed countries will have negative population growth rates by the third or fourth decade of the next century.

A declining population will affect the labour market through both a change in the number of potential workers and a change in the age structure of the work-force. Since most developed countries will not see a decline in total population for perhaps thirty years, it will be changes in the age structure that will have immediate economic effects. Over the last twenty-five years the labour force participation rates for older men have fallen markedly in all developed countries. In 1965 the participation rate for men aged 55-64 in the U.K. was 92.7%, but by 1985 it had fallen to 66.4%. Similar patterns are to be found in all the countries of Western Europe and North America, with the decline at first affecting those over 60 but by 1980 coming to bear on men aged 55-59 (Guillemard 1989; and papers by Rein and by Kohli, this volume). Even if there is no further extension of this trend towards early retirement and age-specific participation rates remain at their current levels, shifts in the age structure of the U.K. population will lead to a decline in the available work-force. By 2025 the size of the 20-34 population is projected to be 7% less than its 1985 level, whereas the 55-64 and the 65+ age groups will both be almost one third larger than in 1985 (OPCS 1987).

Quite what the economic cost of this ageing of the workforce will be is a matter for conjecture. As mentioned above, the Royal Commission on Population in 1949 thought that an ageing population would

suffer from a less dynamic outlook and reduced economic growth, although it might equally be argued that an older workforce would be more experienced and that this would increase labour productivity. Even if it is true in a static setting that older workers are more experienced, long-term growth might be jeopardised if older workers prove to be significantly less able or willing than young workers to adapt to new technologies and work practices (on the learning abilities of older people, see Rabbit, this volume). At present, older workers are less mobile between jobs and locations than are younger workers, and this may in the future present a growing restriction on labour market flexibility.

Any age-structure related inflexibility in the work-force would tend to raise labour costs relative to those in countries with younger populations, and further wage pressure is likely to derive from a more general labour shortage in the industrial economies in the future. If this wage pressure outstrips labour productivity growth, the industrial countries will lose their competitive edge in world markets (McNicol 1987). Labour productivity growth can be sustained only if there is an adequate level of investment in physical and human capital, and this investment is itself threatened by the future cost of financing pensions and welfare benefits.

This interrelationship between labour productivity growth and investment, and therefore between the age structure of the workforce and the funding of retirement pensions, makes it very difficult to determine whether the ageing of the workforce will exacerbate the other costs associated with population ageing. In particular, it is impossible to know who will fare best from this demographic restructuring in the workplace. A decline in the teenage and young adult population should greatly improve employment prospects for this age group relative to conditions experienced over the last decade, and labour shortages may also make it much easier for workers of

pensionable age to resist the pressure from employers and unions to retire, a pressure which has undoubtedly grown since the early 1970s (Johnson 1989; see also Sorensen, this volume).

In order to compensate for shortages of younger workers, it seems likely that employers will need to revise current personnel practices which provide incentives for early retirement, and any such move, coinciding with the overall increase in the numbers of older workers, may produce severe barriers to vertical mobility for younger workers as promotion opportunities decline (Keyfitz 1973). This will almost certainly be the case in those organisations (the majority of large companies in the U.K.) which operate final salary pension schemes, since these provide a very strong incentive for older employees to support age-related promotion and remuneration. Unless employers restructure their personnel and pension policies, younger workers will increasingly find promotion ladders blocked because of the ageing of large cohorts of older workers (a scenario already familiar to university teachers); intergenerational tension will result, with younger workers feeling they have to work twice as hard as their predecessors in order to justify the same preferment.

The cost of informal care

Aside from the financial and employment costs of population ageing, there is the cost of providing care for the frail elderly. This needs to be considered independently of the financial burden of public social service support because a great deal of this care is provided informally. It is a non-marketed service and so does not feature in national income accounts or government expenditure statistics, but it is a real service and it is provided at a real cost to the carers in terms of foregone recreation or employment opportunities.

In an analysis of the 1980 *General*

Household Survey in Britain, Gilbert et al. (1989) found that the incidence of severe disability rises sharply with age. Less than 5% of people aged 65-69, but 11% of those aged 75-79 and 41% of those aged 85 and over were severely disabled. Many others had more moderate levels of disability that required some assistance with tasks such as shopping or climbing stairs. Despite the fact that state expenditure in the U.K. on personal social services (the majority of which is directed to older people) stood at £3.84 billion in 1987 (*Annual Abstract of Statistics* 1989), it can nonetheless be said that "the state's contribution of resources to elderly households through the provision of support services is, for most services, not substantial" (Gilbert et al. 1989). This is because the bulk of care is provided informally; a recent attempt by the Family Policy Studies Centre to cost the totality of informal care provided in Britain (which does, of course, include care for groups other than the frail elderly) produced a figure of between £15.6 and £24 billion (*Family Policy* 1989).

These figures are derived from *General Household Survey* data on informal carers which indicates that in Britain in 1985 about 6 million people were providing informal care, or about one adult in seven. Of those receiving care, 15% were aged 85 and over, 30% were between 75 and 84 and a further 23% were between 65 and 74, and the predominant cause of dependency was physical disability (*Informal Carers* 1988). When these proportions are linked with projections of the size of the elderly population shown in table 3, some crude calculations can be made which suggest that, if rates of age-specific disability and levels of formal care provision remain unaltered, the number of people providing informal care for the frail elderly is likely to rise from around 4.5 million today to 7 million by 2031.

The current pattern is for these carers predominantly to be drawn from the 45-64 age group, and if this pattern is sustained in the future we will see this age group bearing a threefold burden - of high taxes to pay the

Table 3: Index of number of elderly people in the U.K.

Age range	1985	2001	2021	2031
65-74	100	97	122	138
75-84	100	110	118	137
85+	100	171	195	218

pensions of the already retired, of pressure to postpone retirement in order to prevent labour force shrinkage, and of conflicting pressure to provide care for an increasingly aged retired population. It is not obvious that working-age adults will be either able or willing to sustain this cost.

Costs borne by older people

A final cost of population ageing may come to bear on elderly people themselves. This may seem a surprising suggestion given the preceding discussion which sees older people as the (unplanned) beneficiaries of a process of intergenerational transfers which is an automatic consequence of rapid population ageing in modern societies. But if tax, employment, pension and care policies are adjusted to counter the distributive effects of population ageing, and if these countervailing moves are effective, then it will be older people themselves who will have to bear the costs of not having their expectations fulfilled. If pension values or retirement ages are abruptly altered by legislative action, the young can adjust their saving and employment plans to take account of these temporally remote changes to the rules of the modern welfare contract, but people in their 50s and 60s will have little scope for adjusting lifetime economic trajectories rooted in decisions taken several decades earlier.

The benefits of population ageing

This multiplicity of costs associated with the

dynamic process of population ageing has tended to crowd out any discussion of potential social benefits that may derive from this same process. There is well-established literature about high costs and the likelihood of intergenerational conflict (Preston 1984; Longman 1987; Johnson et al. 1989); can or should this be tempered by a more optimistic view? Gains will come to some distinct social groups in several separate but interrelated ways:

1. *Economic*: One consequence of the high economic growth rates and large positive rates of return on both public and private saving enjoyed throughout most of their working life by people now aged over 50, has been to shift the age profile of asset ownership upwards. The pattern of economic flows that has been typical of industrial societies - of working-age children supporting their aged parents - is now being reversed. In a number of countries, France and New Zealand for instance, the average income of pensioner-age households is now greater than the average for all households. In France, in the mid 1970s, newly-retired households continued to receive financial support from their children, but by the mid 1980s it was the children who were the dependents (Cribier 1989). This rapid improvement in the economic standing of newly-retired households (which has been much more pronounced than the financial gains enjoyed by *all* retired households) is giving older people considerable economic power as consumers. Businesses have been slow to recognise this change -

the image of old people as poor people is deeply entrenched in our social attitudes - but they are now responding to the market potential offered by high-spending "woopies" (well-off older people). The combination of expanding numbers and rising wealth among the over-50 population will obviously increase the expected and the achieved average living standard for this age group.

Improvements in the average living standards can, of course, conceal stagnation or even decline for certain groups of older people. The elderly are no more socially or economically homogeneous than any other broad age group in the population, and age, gender and past labour market career are all important correlates of living standards in later life. If in the future, private savings and occupational pensions become a more important element of income in old age and social insurance payments decline in relative value, then those with interrupted employment histories and low lifetime earnings are likely to miss out on general improvements in the living standards of the elderly. Nevertheless, the general trend is likely to be one of increasing economic resources for the population aged 50 and above.

2. *Social*: This increase in purchasing power will certainly affect the social status of older people as a whole. Retired people have typically been excluded from the main mechanisms for acquiring social status in modern societies by being marginalised in both the processes of production and consumption (Phillipson 1982; Walker 1980). In our increasingly consumerist society, where status is closely related not to what you do but to what you buy, this rise in the purchasing power of older people is likely not only to improve their living standards, but also to create a new and positive image of old age as a time of opportunity rather than a period of social dependency.

3. *Political*: Social status will also be enhanced by the increase in the potential political power of people over 50 who will comprise the majority of the electorate in most West European countries by the second decade of the next century. A credible threat to mobilise the "grey" vote against a government may limit the scope for social security reform, but it may also be used to preserve or enhance pensioner income. So far no European country has witnessed any mobilisation of pensioner interests equal to that achieved in the U.S. by the Gray Panthers and the American Association of Retired Persons, and it will certainly not be easy for a generational alliance to overcome the traditional political cleavages of class, religion and race. But it seems unlikely that the baby-boomers, the vocal "me" generation of the 60s and 70s, will lapse into self-effacing submissiveness as they approach retirement.

It is difficult, if not impossible, to weigh these benefits for older people that will derive from the process of population ageing in industrial societies against the costs for younger cohorts. This is particularly the case because broad intergenerational transfers that operate at the macro-social level, may be countered by inter-personal transfers flowing in the opposite direction within family units. Welfare economics remains mute when faced by these complex inter-personal utility comparisons, and moral philosophers differ on whether we should be seeking justice between age groups or between birth cohorts (Daniels 1988); they differ as well, of course, on what they mean by justice. It can be argued, for instance, that since most people in developed countries now live well into their eighth decade, an improvement in the living conditions of the elderly will improve the welfare of *all* age groups, because everyone's expectations of the quality of life in old age will be raised. Problems would arise only if the immediate costs of tax payments made by younger cohorts

outweighed the benefits they derived from knowing their own old age would be financially secure. In practice, however, it will probably be left to politicians to determine how the balance on the scales of costs and benefits for different groups in society should be set, and so it is worth giving some brief consideration in the concluding section to the opportunities for policy innovation opened up by the ageing of the population.

Policy developments

As the 1988 OECD report on *Ageing Populations* made clear, the transition to an older age structure in the welfare democracies will impose substantial costs on taxpayers over the next three or four decades. Although the scale of the costs depends on many future economic and social developments, it seems probable that in countries such as West Germany and Japan, where the age structure of the population is changing rapidly, the public costs will be high. Whether they will be unbearable, undermining the social consensus on which tax-funded social insurance systems are based, must remain a matter for speculation. Although there has been much talk, particularly in the U.S.A., of intergenerational warfare, there has so far been little evidence that younger people will fight their elders. Perhaps they will accept the costs associated with population ageing as the chance occurrence of history, as other cohorts have accepted the costs of wars, revolutions and famines.

If it is decided, however, that the public costs of population ageing must be curtailed, then a range of policy measures suggests itself. Raising retirement and pension entitlement ages, reducing the real value of state pensions, rationing health care and welfare services by age, are all possibilities. It must be recognised, however, that if the costs of population ageing are considered in the broad context suggested by this paper rather than simply as an element of public

expenditure, then some policy initiatives will be self-negating. Attempts to shift the cost of care for the frail elderly onto unpaid carers will reduce public expenditure by simply converting what was hitherto a general tax burden into an individual burden. Not only might this be considered unfair, but it may also be highly inefficient if it substantially reduces the labour supply of the population aged 45-64 who provide most informal care. Similarly, a switch from public to private pensions will ease the burden on the public purse, but the private pension industry may face equally difficult transfer problems by 2025 when assets are being realized on a large scale in order to honour pension contracts.

Fiddling with state pension entitlements is an accounting response to what is a very real problem: a decline in the size of the available labour force in the western economies. Furthermore, it is an accounting response that may have harmful consequences for those elderly people who do not have large assets, private pensions or caring relatives - and despite the rhetoric about high-spending "woopies", we should bear in mind that there are, and will continue to be, many relatively poor older people who depend on the state for support. It is this group which will suffer most from moves such as that introduced in Britain in 1979 to index the old age pension to increases in prices rather than incomes. If public social expenditure is to be severely curtailed, then those who are both old and poor might fare better from an entirely means-tested but generous poverty-relief programme rather than a universal but inadequate old age pension.

Policies to cope with the real as opposed to the accounting problems of population ageing would need to focus on the labour supply. Three different but complementary approaches are possible. First, efforts could be made to raise the birth rate from the very low levels now experienced in some developed countries. Although pro-natalist policies are generally thought to be of only marginal effectiveness, the recent rise of the

fertility rate in Sweden to 2.0 in 1988 gives an indication of what might be achieved if both governments and employers committed themselves to providing full child-support facilities and extensive leave entitlements for working women (in Sweden the entitlements are available to men and women, but are taken overwhelmingly by women). If serious moves were made in all countries to provide large financial and service incentives to parents, in recognition that childrearing is a costly exercise, but one that has direct public benefits (the production of the next generation of workers), then the most immediate beneficiaries of population ageing could be parents with infants and young children. At present, however, there are few signs that other countries are willing to follow the Swedish example.

Second, concerted efforts should be made to improve the quality of labour in the developed countries to compensate for a reduction in numbers. Third World countries will be flush with labour over the next two or three decades as the large birth cohorts of the 1960s and 1970s mature. It will be increasingly difficult for expensive labour in countries with declining populations to compete on price, so the training and retraining of this scarce labour force to ensure a high level of skill will be essential. Again this means that the benefits could equally touch the young as much as the old. For most people education and training is packed into the first two decades of life, with the implicit assumption that thereafter new skills will be acquired and old ones updated through "learning-by-doing." As the pace of technological change accelerates, so this assumption becomes increasingly outmoded. To ensure that workers in their 40s, 50s and 60s can gain maximum satisfaction from their work and give maximum productivity, continued and repeated training and retraining of all workers throughout their career span will be necessary.

Third, older people could be encouraged to continue to participate in the productive economy beyond current retirement ages. A

reversal of the trend towards early retirement, and the establishment of new patterns of work beyond 60 or 65 would be required. European countries could follow the American model and introduce legislation to prohibit age discrimination in employment, but the effectiveness of such measures would be limited unless employers were fully to embrace new working practices. Perhaps what is needed is a new concept of the productive life-course, in which gradual entry to employment (tempered by full and part-time education and training) is matched by a process of gradual (but later) withdrawal into active retirement, instead of the abrupt termination that is characteristic of current retirement practices.

At present, neither governments nor employers seem to have given serious thought to ways of dealing with these future labour force issues, because the problems of population ageing, when considered at all, are so often couched in terms of the size of future public expenditure. And in most countries these future public expenditure problems will not be severe until well into the next century, so there is little political capital to be gained by facing up to them now. Given the propensity of national governments to tend towards irresponsibility in their long-term planning in order to satisfy short-term electoral goals, perhaps within the European Community we should look to the Commission to develop a long-term strategy to respond to both the potential costs and the potential benefits of inexorable demographic change.

References

- Aaron, H.J.; Bosworth, B.P. and Burtless, G. 1989; *Can America Afford to Grow Old?*, Brookings Institution, Washington, D.C.
- Annual Abstract of Statistics*, HMSO, 1989; London.
- Cribier, F. 1989; "Changes in the Life Course and Retirement in Recent Years: the Example of Two Cohorts of Parisians."

- In: Johnson et al., *Workers versus Pensioners*.
- Daniels, N. 1988; *Am I My Parents' Keeper? An Essay on Justice Between the Young and the Old*, Oxford University Press, New York.
- Ermisch, J. 1989; "Demographic Change and Intergenerational Transfers in Industrialised Countries." In: Johnson et al., *Workers versus Pensioners*.
- Ermisch, J. and Joshi, H. 1987; *Demographic Change, Economic Growth and Social Welfare in Europe*. Centre for Economic Policy Research Discussion Paper 179, London.
- Family Policy*, no. 6, Winter 1989; Family Policy Studies Centre, London.
- Gilbert, G.N.; Dale, A.; Arber, S.; et al. 1989; "Resources in Old Age: Ageing and the Life Course." In: M. Jefferys (ed.), *Growing Old in the Twentieth Century*, Routledge, London.
- Guillemard, A-M. 1989; "The Trend Towards Early Labour Force Withdrawal and the Reorganisation of the Life Course: A Cross-national Analysis." In: Johnson et al., *Workers versus Pensioners*.
- Hagemann, R.P. and Nicoletti, G. 1989; *Ageing Populations: Economic Effects and Implications for Public Finance*, OECD Department of Economics and Statistics Working Paper 61, Paris.
- Heller, P.S. 1989; *Ageing, Savings and Pensions in the Group of Seven Countries: 1980-2025*, International Monetary Fund Fiscal Affairs Department Working Paper 13, Washington, D.C.
- Heller, P.S.; Hemming, R. and Kohnert, P.W. 1986; *Ageing and Social Expenditure in the Major Industrial Countries 1980-2025*, International Monetary Fund Occasional Paper 47, Washington, D.C.
- Informal Carers* 1988; 1985 General Household Survey, HMSO, London.
- Johnson, P. 1989; "The Labour Force Participation of Older men in Britain, 1951-1981." In: *Work, Employment and Society*, 3:351-68.
- Johnson, P.; Conrad, C. and Thomson, D. (eds.) 1989; *Workers versus Pensioners: Intergenerational Justice in an Ageing World*, Manchester University Press, Manchester.
- Johnson, P. and Falkingham, J. 1988; "Intergenerational Transfers and Public Expenditure on the Elderly in Modern Britain." In: *Ageing and Society* 8.
- Keynes, J.M. 1937; "Some Economic Consequences of a Declining Population." In: *Eugenics Review* 29.
- Keyfitz, N. 1973; "Individual Mobility in a Stationary Population." In: *Population Studies* 27.
- Keyfitz, N. 1985; "The Demographics of Unfunded Pensions." In: *European Journal of Population* 1.
- Longman, P. 1987; *Born to Pay: The New Politics of Ageing in America*, Boston.
- McNicoll, G. 1987; "Economic Growth with Below-Replacement Fertility." In: K. Davis, M.S. Bernstam and R. Ricardo-Campbell (eds.), *Below-Replacement Fertility in Industrial Societies*, Cambridge University Press, New York.
- OECD 1988a; *Ageing Populations: the Social Policy Implications*, Paris.
- OECD 1988b; *Reforming Public Pensions*, Paris.
- OPCS 1987; *Population Projections 1985-2025*, HMSO, London.
- Phillipson, C. 1982; *Capitalism and the Construction of Old Age*, London.
- Population, Pension Costs and Pensioners' Incomes*, 1984; HMSO, London.
- Preston, S. 1984; "Children and the Elderly: Divergent Paths for America's Dependents." In: *Demography* 21.
- Royal Commission on Population 1949; HMSO, London.
- Thomson, D. 1989; "The Welfare State and Generation Conflict: Winners and Losers." In: Johnson et al., *Workers versus Pensioners*.
- Walker, A. 1980; "The social creation of poverty and dependency in old age." In: *Journal of Social Policy* 9.

