Geofile Online
SEPTEMBER 2000
384

John Pallister

Ageing populations – the Economic and Social Consequences

Two hundred years ago Thomas Malthus published his *Essay on the Principle of Population*, in which he predicted a future of gloom and doom for humanity. Population growth, he said, would outstrip food supply, leading to widespread poverty and mass famine. About 30 years ago the Club of Rome, an international group of industrialists, scientists, economists and statesmen, echoed his views, predicting that food, energy and raw materials would all run out in the face of the ever-growing population. In Malthus's time the total world population was under 1 billion. On 12 October 1999 it was adjudged by the United Nations to have reached 6 billion.

A first response to the dire warnings of catastrophe is to observe that there is still more than enough food in the world to feed 6 billion people. Thirty years ago the global food output was the equivalent of 2,360 calories per person per day; today it is 2,740 calories – above the level considered necessary for healthy living. However, up to two billion people in the world are going hungry because of the inadequate distribution of this food. Governments of some LEDCs can't afford to buy food from the world market. Even if they could, their transport infrastructures are usually incapable of distributing it to the rural areas where it is most needed. In rural areas problems such as unequal land ownership and soil erosion are limiting the amount of food that poor farmers can grow. Additionally the world's population explosion is not over yet. Nine billion is the most likely prediction for total world population by 2050. More than 95% of the growth is expected to occur in LEDCs, and the bulk of the new births will take place in those countries that are the poorest, where governments are the least prepared and where problems of resource shortages are already most acute.

Although the doom-mongers may not (yet) have been proved right, population growth has nevertheless placed severe pressure on natural resources and the quality of the environment. Population growth will remain the big issue in the developing world in the 21st century, just as it was for the whole world in Malthus's time. However, in the developed world there is another population issue of increasing concern – the problem of ageing populations (Figure 1).

Figure 1: Population issues – some newspaper headlines between 1995 and 2000

> 'The population explosion – action needed now to avert disaster'
>
> 'Population growth – a host of future problems'
>
> 'Ageing populations set to put strain on purse'
>
> 'Defusing the pension time-bomb'
>
> 'Conflict between age groups looms'
>
> 'Governments need to plan ahead for the approaching pension crisis'
>
> 'Day of reckoning looms for Italy's welfare system'
>
> '"Time bomb" alerts as births tumble'

Figure 2: Ages of retirement in selected countries

Country	Retirement age			Changes in train
	Male	All	Female	
Iceland		70		Already changed
Denmark		67		
Canada		65		Already changed
Ireland		65		Additional old age pension paid at 66
USA		65		Rising to 67 for both sexes
Germany	65		60	Female retirement age rising to 65
Japan		65		
Australia	65		60	Female retirement age rising to 65
UK	65		60	Female retirement age rising to 65; proposals for common retirement age of 70
Brazil	65		60	
Italy	62		57	Male retirement age rising to 65, female to 60
France		60		
China	60		55	
Russia	60		55	
Bolivia	55		50	

Sources: The Guardian, 22 April 1999; *Mail on Sunday*, 16 October 1999, p. 7

Ageing populations

An ageing population is one in which the proportion of older people is increasing. When studying a country's population structure (the distribution of its population by age group), geographers usually isolate three principal groups. The most important group is the working population (15–64-year-olds) which generates the country's wealth and pays its taxes. People in this age group make up the independent element within any population. Below them is the group of young people (aged 14 and less) who are not expected to be in full-time work and are therefore dependent financially upon their parents. Above them is the

group of elderly people who have passed the age of retirement. They depend upon pensions as their main source of income. In most countries, money for state pensions is provided by the working population, so the elderly also depend upon the 15–64 age group as well.

As Figure 2 shows, there are considerable variations between countries in the official age(s) of retirement. It tends to be lower in LEDCs, where life expectancy is less.

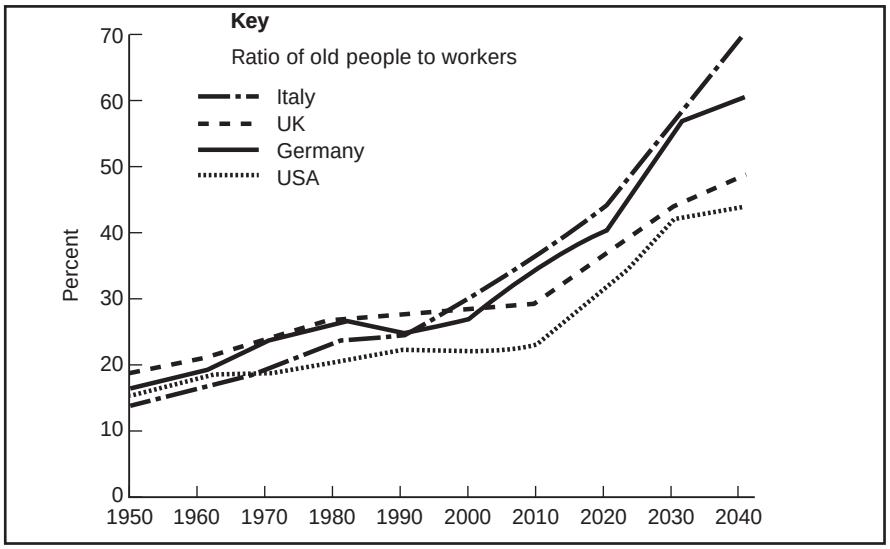
The old age dependency ratio is the measure of pensioners per 100 people of working age. It is calculated as follows:

$$\frac{\text{Elderly population (65+)}}{\text{Working population (15–64)}} \times 100$$

Figure 3 is a plot of known and predicted old age dependency ratios for four MEDCs. It shows a ratio of around 25% in the UK in 2000. This means that, at present, there are about 25 pensioners for every 100 workers. However, the ratio is predicted to increase sharply after 2010, climbing to over 40% by 2040. Expressing this another way, the present ratio of 4 workers to support every pensioner is predicted to fall to 2.5 workers per pensioner by 2040 (Figure 4).

While Figure 3 suggests that the ageing (or 'greying') of the population is a demographic characteristic common to many MEDCs, the intensity of this phenomenon varies from one country to another. The UK already has a more aged population structure than the majority of MEDCs, so that the predicted increase in the ratio, whilst quite marked after 2010, is not as rapid as those predicted for the other three countries. The greatest change of all is expected in Italy. Historically, for a long time Italian birth rates were considerably higher than those of Italy's European neighbours to the west and north, which led to old age dependency ratios that were low in the 1950s and 60s. However, more recent demographic data (Figure 5) show that by 1999 Italian fertility levels had fallen to the point where the crude birth rate was actually lower than the death rate, resulting in a natural decrease in population. Although a similar general trend is exhibited in Figure 3 for the USA,

Figure 3: Old age dependency ratios, 1950–2040



Source: OECD

continuing in-migration, particularly of Hispanics from Mexico and other Spanish-speaking countries in the region, is predicted to keep the ratio at lower levels than elsewhere in the developed world.

Causes of ageing populations

Ageing populations can be viewed as the result of technological and economic progress that has led to reductions in both birth and death rates. Fertility rates have been falling fast in MEDCs, to the point where four EU countries are now experiencing natural decreases in population (Figure 5). Fertility rates are also coming down in LEDCs, where lower birth rates typically accompany industrial and economic development. Of equal, if not greater significance, is increased life expectancy and the consequent lowering of death rates. Improved primary health care and screening, the development of new drugs and general advances in medical knowledge and treatment, mean that people are living longer. Some diseases and conditions that were considered to be untreatable or inoperable only a few years ago can now be dealt with as a matter of routine.

The net result of these trends will be a doubling of the number of people over 60 in the world over the next 30 years, from 600 million (10% of the world total) in 2000 to 1.4 billion (about 16% of the predicted total) in 2030. Pensioners will soon outnumber children in Europe and North America for the first time. Much of the predicted increase in the numbers of the over-60s will be in the better developed LEDCs, particularly

Figure 4: Workers per pensioner in the UK, 1950–2050

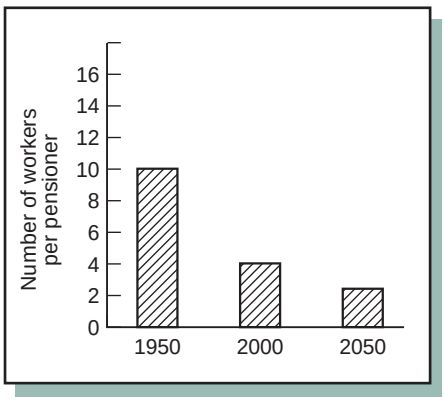
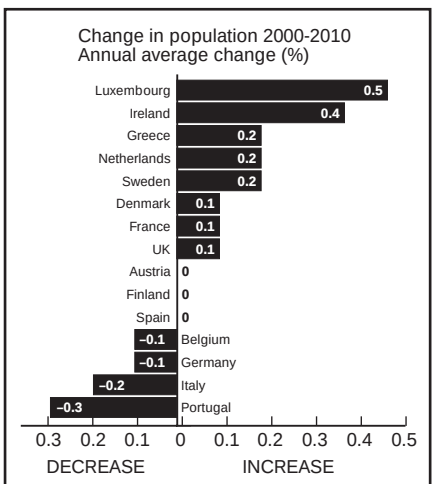


Figure 5: Predicted opulation change in the EU countries, 2000–2010



EU Countries experiencing natural decrease during 1999

Country	Crude birth rate (per 1000)	Death rate (per 1000)	Change (per 1000)
Germany	9.3	10.3	–1.0
Italy	9.1	9.9	–0.8
Sweden	9.9	10.6	–0.7

Source: Financial Times, 13 October 1999, p.6

in Asia, where the problem of ageing populations is likely to become as great a concern to governments there in the near future as it is in MEDCs today.

Economic consequences

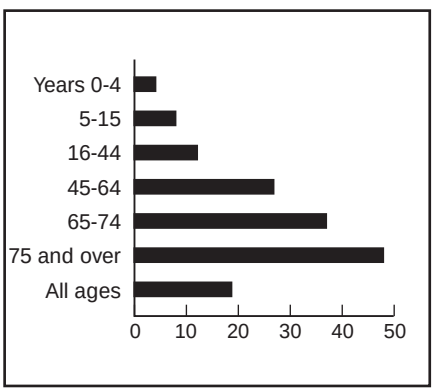
As the world's population grows older, governments in MEDCs must address the possible economic consequences. Although operating under different names and in different ways, welfare systems exist in all MEDCs. Welfare systems cover pensions, health care and social security. The roots of the economic problem are not hard to identify:

- The proportion of working people, who create wealth and pay direct taxes, is going down.
- The proportion of the elderly people dependent upon the welfare system is increasing.
- A point must be reached where the amount being paid in cannot keep pace with the amount that needs to be paid out.

Welfare systems tend to be more generous in most European countries than in the USA, but even in the USA the public pension scheme is predicted to go into deficit between 2015 and 2020 unless amendments are made to it.

At present, an average of 25% of GDP goes on welfare spending in EU countries. Just under half this expenditure goes on pensions. The rest goes on unemployment benefits and maternity, housing and family allowances, which are spread more broadly through the age ranges. In addition there is significant state spending on health services, available to all age groups, but which are consumed more by the elderly.

Figure 6: Percentage of people suffering from long-standing illnesses requiring medical treatment in the UK, by age group, 1995–96



Source: Financial Times, 30 January 1997, p.14

Spending on pensions is the most obvious and potentially most contentious economic issue associated with an ageing population, because it already accounts for a very high proportion of welfare spending in MEDCs. There are two types of funding arrangement for pensions; the UK uses a bit of both:

1. **Pay-as-you-go**. The state pension that is paid when the retirement age is reached (currently 65 for men and 60 for women) is an example of a 'pay-as-you-go' scheme. It is the type that most governments operate. The money for pensions comes from taxes paid by the present generation of workers. The obligation to pay for the pensions of those who have retired is passed down the line from one generation to another, so that each generation of workers takes on the obligation to provide for the generation that went before it. All people currently in work are helping to pay for the pensions of those who have already retired. If such a system is to work well and fairly, income and expenditure need to be reasonably in balance. In the past, when income was in surplus, the surplus was usually spent on other areas of the welfare system, or invested in projects for growth from which those of working age benefited. Governments are becoming increasingly alarmed by likely future funding deficits for pensions.
2. **Self-funded**. This arrangement is usually referred to as private pension provision. Individuals save for their old age when working by making personal contributions to private pension schemes or by joining an occupational pension scheme to which both employers and employees contribute a certain percentage of gross wages. The funds are invested and build up over time. The bigger the fund on retirement, the larger the person's pension. This scheme has gained increased favour with UK governments because it shifts some of the funding obligation for pensions away from the state.

Although the arrangements appear to be fundamentally different, in one important way the distinction between them is a false one. The money from which pensions are paid always comes out of current production. Most investments through which private pensions are funded involve the purchase of shares and bonds in companies. Although the number of shares in a fund is built up over the years, it is the current generation of production (and hence profits) by companies in which funds have been invested which maintains the value of the investment from which the pension cash is drawn.

Governments in MEDCs have inherited pensions systems from times when both life expectancy and the age dependency ratio were lower. However, any given cohort of pensioners is unlikely to be willing to accept an inferior pension package to that which previous cohorts of pensioners enjoyed (and which they themselves helped pay for during their working lives). Nevertheless governments now realise that the cost of current pension systems must be reduced; the term used for this is 'downsizing'. To achieve downsizing, a combination of one or more the following approaches is probable:

- a higher retirement age (Figure 2);
- reduced levels of benefit by changing the basis for its calculation – for example, by indexing pension rises against the retail price index instead of average earnings (as has already been done in the UK);
- a flatter structure of benefits to target the poor better.

Meeting the demands of increasing numbers of elderly people for pensions, health, social services and residential care means higher taxes and reduced spending and investment on services for those in other age groups. There are plenty of other competitors for government money, such as regional aid and investment in new economic activities. At the same time there are limits to the proportion of earnings that governments can take in taxes.

However, there are some beneficial

consequences of an ageing population. Some manufacturing companies have tapped into the growing niche market for products such as stair lifts and wheelchairs. The service sector has been boosted by the purchase of leisure and recreational facilities at off-peak times during the working week. A proportion of pensioners is sufficiently wealthy to bear the full costs of their own health, private nursing and residential care. Some large properties that were formerly of little commercial value because of size and location have been converted into residential homes and become profitable. Many elderly people are great travellers, and take advantage of the lower prices outside school holidays, which has helped to extend the tourist season and allowed hotels and tour companies to spread their costs over more of the year.

Social consequences

Governments make economic decisions that have social consequences. They are responsible for setting levels of spending on pensions and services for the elderly. Balancing expenditure in these areas with spending on measures for job creation or on education, areas where there is a more direct effect upon other age groups, is a delicate task. Younger generations of workers have a strong interest in the cost of caring for a rapidly ageing population being spread evenly so that they, as the wealth creators, are left with sufficient funds to enjoy interesting and healthy lives. As the numbers and proportions of elderly people increase, so also does their political clout. In areas where there are concentrations of the elderly, such along the south coast of England, or in the Sun Belt states of the USA, politicians cannot afford to ignore the voting interests and concerns of the old. The potential for conflict between the generations is likely to increase when the baby boomer generation – born in the 1960s – reaches retirement age from 2025 onwards.

There are also conflicts of interest between different groups of pensioners. Some are financially secure. Their wealth is derived from occupational pensions, income from savings and inherited property. The political and social interests of this group are quite different to those of other pensioners who have no income other than the basic state pension. All that some of the latter will have known is low-paid, part-time and irregular work without occupational pension schemes. Some are single or divorced. Many live in rented accommodation that swallows up a proportion of their meagre weekly income. Their life is characterised by poverty and struggle and an over-dependence upon the quality of local social services.

More and more people are retiring early, yet some still-healthy elderly people would love to top up their pensions by working. They come up against the problem of ageism among employers. In the recruitment of workers there remains, at present, a widespread bias on the grounds of age. The elderly are seen as less dynamic and flexible than young people – they don't fit the image of an expanding company. Only a few companies, notably the DIY chain B&Q, have positive policies for employing older people. One estimate is that 40% of 55—65-year-olds in the UK would like a full-time job, but are unable to find one. Possibly, however, as the proportion of the population that is of working age diminishes, attitudes to age and suitability for employment will change.

Conclusion

After decades of fearing Malthusian predictions that unstoppable population growth would spread havoc across the world, European and North American countries, as well as Japan, are now more afraid of the explosion in numbers of their elderly populations. In his recent book, *Agequake*, Paul Wallace predicts that 'Populations in Europe generally are poised to plunge on a scale not seen since the Black Death'. He speaks of a glut of retirees, supported by fewer and fewer workers; of overloaded state pension systems facing bankruptcy. The breakdown of European economic and monetary union, and stock market crashes as the baby-boomers start cashing in their shares (in around 2024, if you want the most likely date) are other elements of this scenario. Agequake reads a bit like Malthus, but the focus of the book – the change in demographic structure within the world's most developed countries – lies beyond even the wildest dreams of the Reverend Thomas Malthus.

Focus Questions

1 (a) Identify the main characteristics of an ageing population.
(b) Why is an ageing population more of an issue in MEDCs than in LEDCs?

2 (a) What is meant by the 'old age dependency ratio'?
(b) From Figure 3, describe:
(i) the common trends, and
(ii) the differences between the four MEDCs.
(c) Describe and comment upon what Figure 6 shows.
(d) Why are any problems associated with an ageing population structure likely to worsen with time?

3 (a) Explain the economic problems caused by ageing populations and comment upon the possible ways of managing these problems.
(b) Why might the economic problems have social consequences as well in MEDCs?