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# POST-FORDISM AND POPULATION AGEING

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## **Abstract**

Two features of recent economic experience have been the transition to post-Fordism and the ageing of populations. Post-Fordism entails diverse production and consumption, flexible employment, privatisation and a smaller welfare state. Population ageing is predicted to cause financial problems for state pension schemes and could provoke an ageing crisis. Although post-Fordism and population ageing have similar expected consequences, with a stress on welfare retrenchment, they have been discussed as separate topics and few connections have been made between them; the present paper aims to bring them closer together and consider how they are related. Post-Fordism could be seen as resolving the ageing crisis and offering people better work and retirement choices in a new, post-Fordist life course, but this version of events is questionable. An alternative view is that post-Fordism and the ageing crisis are symptoms of the general movement towards privatisation and *laissez faire*, which is by no means guaranteed to improve the welfare of older people.

**Keywords:** population ageing, post-Fordism, pensions, retirement

**JEL classification::** E6, I3, J1, O3

## **1. Introduction**

Post-Fordism and population ageing are among the most important aspects of recent structural change in OECD countries: they emerged as topics of debate during the 1980s and have been much discussed since, but in separate literatures. The literature on population ageing relies on neoclassical economics and says little about post-Fordism, while the post-Fordist literature refers only obliquely to population ageing. This gap derives from academic specialisation and differences of method, rather than the topics themselves, and it seems unlikely that they could be entirely independent of each other.

Post-Fordism, by its nature, must be relative to an earlier Fordist phase of economic development (Amin, 1994; Nolan, 1994). The term 'Fordism' has been used in narrow and broad senses. Defined narrowly, Fordism refers to the mass production techniques which dominated production from the late 1940s to the mid-1970s. It centres on a particular labour process with moving assembly lines, standardised products, extreme division of labour, low skill levels, and a strict boundary between management and workers. Broader definitions of Fordism include its implications for the economy, society and public policy. Features of the Fordist era were mass consumption, rising real incomes, growth of transnational businesses, collective bargaining between employers and trade unions, Keynesian macroeconomic policies, and the welfare state. Fordist production may have engendered a distinctive phase of economic development that peaked in the third quarter of the 20th century.

Recent experience has diverged from Fordism, prompting speculation about a new, post-Fordist phase of development. Post-Fordism too can have narrow or broad definitions. A narrow definition refers to changes in the labour process such as flexible employment, greater variety of employment contracts, flatter organisational structures, and less standardised production. These items seem to be bound up with new technologies, notably microelectronics and computing, and characterise industries where technical change has been fastest. As yet the new ways of working are far from universal, but they are expected to

thrive as the 21st century proceeds. On a broader front, changes in the labour process could undermine Fordist institutions and stimulate diverse production and consumption, increased job mobility, a shift away from collective bargaining, privatisation policies, a retreat from Keynesianism, and a smaller welfare state. Already discernible, such reforms may mark the onset of a post-Fordist phase of development embracing the early 21st century.

Population ageing has occurred simultaneously with Fordism and post-Fordism. It stems from the demographic transition, a long-term passage from one demographic steady state (high fertility, high mortality, few elderly people) to a new steady state (low fertility, low mortality, many elderly people) during industrialisation; the pace and timing of the transition vary between countries, but the same pattern applies almost everywhere (Livi-Bacci, 2001, Chapter 4). Falling mortality starts off the ageing trend, though the main cause is falling fertility in the later stages of the transition. On its own, the demographic transition model has little explanatory power, and various theories might be consistent with it. The correlation with economic development is strong, however, and economic factors seem vital to the causality.

The ageing trend began in the early 20th century and will last until at least the mid-21st century: this matches the time scale of Fordism and post-Fordism, from the first appearance of a Fordist labour process to the fully fledged post-Fordism expected in the next few decades. Similarities in timing also pertain to the academic literatures on post-Fordism and population ageing. Ageing populations had been discussed earlier, in the 1930s, but interest faltered during the postwar 'baby boom' and the modern literature on ageing dates from the 1980s onwards. Discussion of post-Fordism only came to the fore with Regulation Theory in the 1980s. The predicted policy outcomes of post-Fordism and population ageing bear a close resemblance. Typical policy responses to the 'ageing crisis' include cuts in public pensions and welfare benefits, later retirement, and the encouragement of private saving and pensions, which tally with the privatisation and curtailed welfare measures envisaged by the broader definitions of post-Fordism. The two academic literatures, despite their separation, call forth a similar picture of future events.

How, then, are post-Fordism and population ageing related? The present paper addresses this question by drawing from the two literatures and taking a wider view. Initially the ageing crisis, Fordism and post-Fordism are considered in more detail and put in their long-term context, prior to an assessment of the causal influences from population, technology and institutions. It is argued that post-Fordism and population ageing belong to a larger process of structural change, only parts of which are covered by the existing literatures, and that a proper understanding of them requires a less reductive stance.

## **2. The Ageing Crisis and Fordism**

In orthodox economics, the significance of population ageing comes from demographic constraints on the economy (Jackson, 1998, Chapter 2). As the population ages the inactive elderly increase as a percentage of the total and the workers decrease, giving a heavier economic 'burden' with a rising dependency ratio (more dependants per worker) and a falling support ratio (fewer workers per dependant). An ageing population thereby creates a shortage of workers and a need to make adjustments - the so-called ageing crisis. Inherent in such analysis is the belief that the economy functions at or near full employment; with no slackness in the system, demographic change has immediate effects on output.

Tightening demographic constraints pose allocative problems because, as the population ages, resources must be transferred from the active young to the inactive elderly. In a pay-as-you-go (PAYG) pension scheme, for example, current taxpayers finance retirement pensions: workers subsidise the retired. If pensions are to hold their values relative to earnings and the pension budget is to stay balanced, then taxes and pension contributions must increase. Rising productivity might lighten the load on the working population, but taxes will probably have to rise, as productivity gains accrue to the young and can be passed on to the retired only through taxation. In the neoclassical literature, tax increases arouse fears about disincentives that might reduce labour supply, discourage saving and impede economic growth.

Higher taxes could also stir up generational conflicts and threaten a breach of the implicit contract behind PAYG pensions and other welfare measures (Johnson and Falkingham, 1992, Chapter 5; Walker, 1996). The working generation, still the majority, might renege and vote against the higher contributions needed to uphold the value of pensions. Open tensions about tax rates could culminate in a clash of generational interest groups (Thomson, 1989). Among the policies proposed to reduce generational conflicts are cuts in public pensions, so as to avoid unplanned cuts in the future, and a switch from PAYG public pensions to funded private pensions with no financial transfers between generations.

Worries over an ageing crisis are expressed in the language of neoclassical economics and pay little heed to institutions, as if the problems were purely demographic and took the same form in all cases. But the effects of population ageing revolve around institutions that differ between countries and produce no single, global experience. Welfare states can be classified into several types or groups (Esping-Andersen, 1990; Pierson, 1998, Chapter 6). The consequences of population ageing for any given country depend on the number of state pensioners, the level of state pensions, the retirement age, employment rates among older people, the organisation and finance of health care, and the provision of social care. All these things vary internationally, ruling out a universal ageing crisis. Any problems from population ageing differ between countries, and so will the policy responses.

Empirical studies of demographic change show international differences in the extent of population ageing and the degree to which it influences public finance (Walker and Maltby, 1997; OECD, 1998; Pacolet et al., 2000; Dang, Antolin and Oxley, 2001; United Nations, 2002). Countries with ample state pensions financed on PAYG principles face more intense pressure on public budgets than those with low state pensions and widespread private pension schemes. In Esping-Andersen's terminology the differences correspond to the distinction between social democratic and corporatist welfare states (Scandinavia, Germany, France, Italy), where the effect of population ageing will be greatest, and liberal welfare states (US, UK, Canada, Australia), where ageing will have a lesser effect. Even though empirical work has recognised diversity, theoretical approaches to ageing have used neoclassical models which lack institutional content.

Much of the orthodox analysis depends implicitly on Fordist institutions. All the anxieties over taxes, disincentives, budgetary balancing and generational conflicts are predicated on a Fordist welfare state with public retirement pensions and tax-financed welfare benefits. Contrary to its image as an exogenous demographic event, the ageing crisis has ties with Fordism and would not otherwise exist in the same form. It is worth highlighting the core features of Fordism that sustain the crisis arguments: five features stand out.

First, the discussion turns upon the Fordist life cycle, whereby people stay in education until they reach the school or university leaving age, work until they reach the statutory retirement age, and then retire (Myles, 1990). The three stages of education, work and retirement are never mingled. The 'chronologised' pattern has little to do with biological ageing and adheres to common age thresholds imposed by the state. Age-based Fordist institutions magnify the influence of age on work and retirement behaviour. A person's retirement date becomes predictable, and the same goes for the aggregate effect of ageing on the economy: Fordism creates a mechanical bond between age and economic activity.

Second, pensions and welfare benefits are financed publicly on PAYG principles in accordance with the Fordist welfare state. Taxation provides a means of carrying out intergenerational transfers and becomes a focus for friction between generational interest groups. Public welfare arrangements make the costs of supporting and caring for older people more conspicuous than they would be under private or informal arrangements.

Third, state retirement pensions are high enough for population ageing to be perceived as a challenge to the welfare state. Under Fordism, mass consumption and generous welfare measures have raised expectations about pensions, and any reluctance to protect the value of state pensions will provoke resistance from the retired. For the working population, higher taxes are seen as hitting consumption and living standards.

Fourth, the public sector organises health care and formal social care. In pre-Fordist times nearly all care was unpaid and within the household. Fordism moves some caring activities from the domestic to the economic sector, where they join the formal economy and are

recorded in the national accounts. The consequences of population ageing for government budgets include health care and formal social care, as well as pensions and welfare benefits.

Finally, the assumption of full employment fits in with Keynesian demand management and full-employment policies. It remains debatable whether governments were ever truly Keynesian, even in the Fordist era, but the intent to preserve full employment was officially declared and employment levels stayed high. Although many orthodox economists accredit full employment to market-clearing equilibria, the overall picture is consistent with Fordist policy goals. Low unemployment strengthens relations between population and the economy. Changes in the working population have immediate consequences for employment, which is no longer constrained by aggregate demand.

Together, these Fordist features enhance the significance of population ageing. Economic commentators on the ageing crisis have assumed a stylised Fordism; their analyses, supposedly universal and historically unspecific, have hinged on narrow and implicit institutional assumptions. The Fordist setting has been crucial, whether or not commentators refer to Fordism.

### **3. Post-Fordist Trends**

If post-Fordist institutions do emerge, they could transform the Fordist life cycle and put an end to the education/work/retirement pattern. 'Dechronologisation' would bring the abandonment of a fixed chronology to guide work and retirement (Kohli, 1986; Guillemard, 1989; Phillipson, 1998, Part II). In a dechronologised world, people would have unstructured life courses without age limits or boundaries, and lifetime experiences would not be coordinated centrally. No institutional age threshold would demarcate old age: as Fordist pension and retirement practices dwindled, then so would the young/old dichotomy. The most telling sign of post-Fordism would be the diminished importance of statutory retirement ages.



An example of this has been the growth of early exit from the labour force since the 1970s: many people have stopped working before they reach the retirement age and retired without being classified as such. Early exit can take various forms, including unemployment, receipt of disability benefits, early retirement under occupational pension schemes, and a public pre-retirement period, as in Job Release Schemes (Laczko and Phillipson, 1991, Chapter 4). It has been widespread among OECD countries, despite differences in how it has been achieved. In some countries (such as France and Germany) it has resulted from earlier switches between full-time work and retirement, in others (such as the US and Japan) from increased part-time work by older age groups (Jacobs, Kohli and Rein, 1991; Rein and Jacobs, 1993). Different modes of early exit have contrasting social consequences: wealthy people with occupational pensions may choose to retire early and enjoy more leisure time; the less wealthy may endure a prolonged spell of involuntary unemployment before they formally retire.

Another post-Fordist trait has been diversified work and retirement. Work is no longer dominated by permanent, full-time jobs that furnish a lifetime career. Instead, diverse styles of work are embodied in alternative, 'flexible' contractual forms, such as part-time work, temporary contracts, freelancing and job sharing schemes (though the real choices available to workers depend on labour market conditions). New jobs might be interspersed with retraining or re-entry into education. A post-Fordist life course would, in theory, allow for career changes, varied work patterns, opportunities for several stints of full-time or part-time education, and choice over the speed and timing of retirement.

Of the two retirement trends linked with post-Fordism - early exit and diversified retirement - the latter should prove more durable. Over the next few decades, retired people are set to undertake a wider range of activities than ever before (Schulz, 2002). The increased diversity of experience may not be accompanied by earlier retirement. Early exit appeared during the 1970s and 1980s, when unemployment was rising and population ageing had not yet become a policy issue. To depart early from the labour force (often with the government's blessing) helped absorb unemployment and convert it into retirement, thus disguising joblessness. Since the 1980s, conflicting pressures have arisen from debates over pension

finance. Fears about the cost of PAYG pensions have boosted the appeal of later retirement, and this is starting to influence statutory retirement ages and retirement behaviour in general. The 20th century trend towards early retirement could be reversed in the 21st.

Along with changes in work, post-Fordism also implies a withering of the Fordist welfare state. The high taxes required by welfare measures have always invoked opposition which, if it gained the upper hand, could jeopardise the welfare state's future. Disputes over tax rates have been interpreted in heterodox economics as a tension between accumulation and legitimisation (associated with low and high taxes respectively), leading to the 'fiscal crisis of the state' (O'Connor, 1973). In the last twenty years or so, the balance has tipped towards lower taxes and arguments to restrict public expenditure. Both national governments and international organisations such as the World Bank and OECD are seeking to reduce reliance on PAYG pensions and promote alternative, private arrangements. Much economic commentary has advocated a switch from state pensions to 'multipillar' approaches that embrace personal saving, private pensions and part-time work in later life (World Bank, 1994; OECD, 1998, 2000; Casey et al., 2003). A cornerstone of these arguments is the desire to curb public spending in the face of an ageing population.

The reforms could eventually overturn the current welfare regime, a prospect conceptualised as a shift from the Keynesian welfare state to the Schumpeterian workfare state or competition state (Jessop, 1994, 2002; Pierson, 1998, Chapter 2). At the heart of the shift is the alleged need to maintain international competitiveness in a global *laissez-faire* economy; Fordist high-tax and high-spending policies may be unsustainable if they damage a country's ability to compete. Keynesian demand management and regulated national wage bargaining have been dismissed as static and unwieldy. The public sector, attacked for being less efficient and supple than the private sector, has undergone privatisation, declining employment and relative deterioration of pay and working conditions. Tax-financed cash benefits have become less fashionable than workfare schemes, training programmes and other measures designed to increase employability. Social policy is now geared to participation in flexible labour markets, and competitiveness is superseding welfare as a policy goal. Debates about population ageing are acted out against a backdrop of changes in the aims and character of social policy.

As standardised products and mass consumption recede under post-Fordism, the result should be diverse consumption patterns and lifestyles. Variable working practices should mirror variations in other areas, from tastes in consumer goods to choice of leisure pursuits. Social diversity is often regarded positively, as a symbol of individual choice letting everyone select their own way of living. It may, on the other hand, yield a fragmented, rootless society in which deep social divisions and inequalities replace the previous cohesion. Low employment incomes, not necessarily the outcome of lifestyle choices, will lead to low retirement incomes, as they limit a person's ability to save or contribute to a funded pension scheme. Post-Fordism will widen the gap between the richer sections of the retired population, who have private pensions and other means, and the rest, who have no such resources. Under these circumstances, the retired have little in common and hardly constitute a homogeneous interest group. Diverse post-Fordist lifestyles should diminish the risks of generational conflicts.

Post-Fordism could herald new trends in the health of older people. Some authors have expressed optimism that diseases of ageing could become preventable and no longer cause chronic ill health (Fries, 1980; Fries et al., 1993). Compression of morbidity would shorten the period of illness before death and move us towards a disease-free natural life span. Through lifestyle changes and preventive measures the need for curative medicine could be reduced and the burdens on public spending relieved. This meshes with post-Fordist trends as it foresees a smaller role for public health care and a bigger role for preventive activities such as changes in diet and lifestyle. Fewer public resources could be devoted to medical care of older people. Such arguments remain speculative, as there is scant evidence for compression of morbidity; other authors take a pessimistic view and see the elderly suffering from diseases of ageing (heart disease, strokes, cancer) and incurring high and prolonged medical expenditures (Schneider and Brody, 1983; Verbrugge, 1984). The connections between age, health and medical expenditure are complex and depend not only on human biology but on social and ethical factors (Jackson, 2001). If the pessimistic view turns out to be accurate, then population ageing would reaffirm the importance of formal health care and induce an expansion of total medical spending in absolute and per capita terms.

Post-Fordist trends have, on the whole, reduced the institutional significance of a person's age and widened the range of experience. As age thresholds dissolve and economic behaviour becomes less standardised, the Fordist bond between age and economic activity will weaken. Does post-Fordism, in its implications for the elderly, represent a historical break from the past? To consider the question one has to look at longer-term patterns of economic change.

#### **4. Post-Fordism, Modernisation and the Status of the Elderly**

Fordism and post-Fordism fit into the process of modernisation, the spreading of capitalist economic arrangements and their consequences for society. Post-Fordism could be another stage of modernisation or it might usher in a distinctive, postmodern era. The impact of modernisation on the elderly has been discussed within social gerontology, in approaches inspired by modernisation theory (Cowgill and Holmes, 1972). Not all social gerontologists agree with the modernisation thesis, and it has been much criticised, but it provides a useful benchmark account of how economic development might affect older people.

Capitalism, according to modernisation theory, has changed the nature of families, which have evolved from an extended, multigenerational form with older members at the head to a nuclear, single-generation form with older members living apart from their offspring. For older people, the demise of extended families has brought the loss of the headship role and the seniority and respect that goes with it. Family support is scarcer when younger generations no longer live in the same household, and the elderly must rely on their own incomes, pensions or savings. Changes in the family reflect changes in society. Pre-capitalist societies are often thought to have been organised hierarchically with seniority based on age and experience; capitalism, by contrast, is organised around impersonal markets, and current productivity matters more than anything else. In work rewarded by productivity, the old could lose out to the young. Capitalist production demolishes hierarchies based on age and replaces them with a social order based on work performance: if the young are more productive than the old, then the highest incomes will go to younger age groups.

As capitalist development progresses, the lower status of older people becomes confirmed and normalised through formal retirement. A statutory retirement age creates a boundary between the active, self-sufficient younger generations and the inactive, dependent retired, who resemble other low-status groups such as the unemployed. Some gerontologists have explained formal retirement as the disengagement of older people from work once their productive capacity falls; it affords a socially acceptable route from work to dependency (Cumming and Henry, 1961). Retirement regulates withdrawal from work and underpins pension and welfare policies, but it also hives off older people as a separate, low-income group. Official age discrimination, however well intentioned, may ratify age discrimination in employment and elsewhere.

The modernisation thesis has been queried on two main grounds. First, it remains uncertain whether older people had high status in pre-capitalist societies. Empirical studies have failed to discover a golden age of the family when older members stood at the head of an extended, multigenerational family unit and were granted privileged status (Anderson, 1971; Laslett, 1977). Before industrialisation, high death rates meant that the elderly were a tiny fraction of the population and not a well-defined group; age alone conferred no advantages, and the fate of older people depended on their social and economic circumstances. Second, the evolution of work and technology has not always harmed older people and may at times have aided them. Older workers are disadvantaged in heavy manual work, but this has diminishing relevance as an economy develops. In newer, non-manual technologies the physical strength of workers is less critical and older workers need not lose out: experience, loyalty and trust may count in their favour. Measuring individual output becomes more difficult, so we cannot know for sure that low productivity has hurt the incomes and status of the elderly.

Recent work in social gerontology has moved away from modernisation theory towards political economy approaches which examine social and political influences on older people as well as economic ones (Walker, 1981; Phillipson, 1982, 1998; Estes, 2001). Old age in any particular country or period is shaped by social and economic structures involving government, the labour market, family relationships and membership of social classes. Institutions like the welfare state follow no clear, tidy pattern. State retirement pensions offer

a guaranteed income source in later life, but official retirement ages divide older people from the rest of society and label them as a dependent group supported by the working population. One cannot say with confidence that the status of older people has improved or declined. Countries differ in their economic and social institutions, and even within a country the fortunes of older people vary. Political economy approaches acknowledge this diversity by scrutinising the institutions of the country and period in question and avoiding generalisations about the long-term status of older people.

The arguments surrounding the modernisation thesis leave room for doubt about the repercussions of post-Fordism. From an optimistic angle the dislodging of fixed retirement practices could benefit the elderly. If retirement becomes diversified, then the boundaries between young and old or economically active and inactive will crumble. It will be less appropriate to treat older people as a dependent group merely because of their age, as is standard in the calculation of dependency ratios. The new arrangements might give people genuine retirement choices. Job mobility and opportunities for returning to education might loosen the rigid structures of the Fordist life cycle. Post-Fordism could reverse the negative consequences of modernity and improve the lot of older people.

Yet post-Fordism can be portrayed in a less flattering light. Amid the changes associated with it are deregulation of retirement, cuts in state pensions, and a switch towards private, funded pension schemes. Private pensions depend on a person's past income and employment record, so that the rich fare better than the poor. Uncertainties from stock-market fluctuations, economic recession and inflation could be as severe as those from generational conflicts. Under private pension schemes the retired are in effect selling shares to indirectly finance their pensions and the working population are buying shares - population ageing could increase stock-market uncertainties by fostering the selling of shares. Retirement choices could prove illusory if labour market flexibility ends up with employers managing retirement practices. Centralised but generous public pensions and welfare benefits may be better for the elderly than flexibility and *laissez faire*.

## **5. Connections Between Post-Fordism and Population Ageing**

Seldom discussed together, post-Fordism and population ageing are evaluated separately in the academic literatures dealing with structural change in OECD countries. Most studies focus on a single dimension of structural change and pay special attention to it. One can discern three main approaches, centred on population, technology and institutions.

### *5.1 Demographic Approaches*

Studies of population ageing frequently start with demographic change, hold all else equal, and then consider how the economy will cope. The causal chain goes directly from ageing to the ensuing problems, as in dependency and support ratios: such views have been termed demographic determinism (Johnson and Falkingham, 1992, Chapter 2). Where demography has causal priority, institutional analysis will be thin. Population acquires a real economic significance, unmediated by institutions, and imposes physical constraints on the economy.

The ahistorical method ignores how Fordism has assigned economic importance to age. Retirement is depicted as a universal phenomenon, presumably compelled by the low productivity of older people, and the Fordism/post-Fordism distinction vanishes. The proposed responses to population ageing do, nevertheless, concur with post-Fordism: lower welfare benefits and pensions, privatisation, part-time and flexible work, and so forth. Many current trends are viewed as adjustments necessitated by population ageing. In this narrow sense, population ageing 'explains' post-Fordism.

An obvious drawback to demographic approaches is the absence of binding population constraints. Since the revival of debate about population ageing in the 1980s many OECD countries have had high and persistent unemployment, far removed from assumptions of full employment and an aggregate labour shortage; unemployment has been highest in countries with generous public pensions (Continental Europe) and lowest in countries with meagre ones (US, UK). Disquiet about rising dependency ratios implies that there are too few workers, but if economies can tolerate chronic unemployment, which raises the true dependency ratio, then

population ageing cannot be a unique problem and does not have paramount importance. Economic slackness due to unemployment shelters capitalist economies from the immediate effects of demographic change.

When an economy has unemployment caused by low aggregate demand, this will be the main constraint on economic activity and demographic change may have little significance. In a Keynesian framework the relation between population and economic resources becomes more complicated and ambiguous than under full-employment assumptions (Jackson, 1992). Keynesian economists have dwelt not on labour shortages or budget constraints but on changes in aggregate demand. During the late 1930s, Keynesians feared that the slowdown in population growth would cripple aggregate demand and prolong the interwar depression (Hansen, 1939; Reddaway, 1939). Postwar reconstruction and the 'baby boom' dispelled their fears, but the Keynesian logic illustrates how population acts upon the economy indirectly, via aggregate demand. If welfare retrenchment in response to the ageing crisis brings about deflation, then it could discourage investment, hamper economic growth and compromise the real incomes of the retired (Wray, 1989; Palley, 1998). The overreaction of policy-makers could be a problem worse than the population ageing itself. Demographic change, in Keynesian eyes, exerts a slow moving background influence on aggregate demand, but this is outweighed by other influences that change more rapidly and have similar or greater magnitude.

Slackness also exists within the Fordist life cycle because people do not work to their full lifetime capabilities. Most employees retire while still physically and mentally fit, and so retirement is not driven by biological necessity. The relation between age and productivity has been a vexed question, but age has only small productivity effects within the normal working age ranges, especially for non-manual work (Charness, 1985; Warr, 1994). In developed countries major physical decline is confined largely to those in their eighties or older, well past statutory retirement ages. Biological ageing has few consequences for production, and the inactivity of older people results chiefly from institutional age limits. Modern capitalist economies display slackness on both a cross-sectional basis, through unemployment, and a life-cycle basis, through retirement.



Any demographic constraints are liable to be self-imposed financial ones. With PAYG pensions, for example, a balanced budget condition sets up a financial constraint that requires policy adjustments as the population ages. Budgetary issues lie beneath much orthodox analysis, though the discussion may be couched in real terms and the policy responses viewed as predestined and unavoidable; a specific financial matter is inflated into a general crisis for the whole economy.

## *5.2 Technological Approaches*

Technical changes occur on the same time scale as population ageing, and it would be wrong to suppose that technology stays constant. Technology can be defined as the material means of production and distribution (tools, machinery, buildings, transport, communications), together with human skills and working relationships. This definition overlaps with institutions, though the institutions closely involved in production - aspects of technology - should be distinguishable from institutions with no involvement. A materialist method gives causal precedence to technical change and assumes that other structural changes follow in its wake.

The terms Fordism and post-Fordism hail from Regulation Theory, which traces recent economic and social changes back to changes in technology (Aglietta, 1979; Boyer, 1990; Boyer and Saillard, 2002). Similar views can be found in flexible specialisation theories, long wave arguments and the social structures of accumulation approach (Gordon, 1980; Piore and Sabel, 1984; Kotz, 1990; Tylecote, 1991; Freeman and Louca, 2001). With technology as prime mover, a phase of economic development rests on new products or production methods: microelectronics, information technology and biotechnology may impel the next phase. At first the new technologies clash with institutions better suited to the previous technology, but institutions should gradually be reformed or adapted to open the way for growth. Temporary problems and crises become a normal feature of economic development; the ageing crisis could be an offshoot of post-Fordist technical change.

From a Regulation School standpoint, OECD countries have just completed the Fordist phase of development and are now embarking on the post-Fordist phase. During the downswing of the last phase since the 1970s, the old Fordist institutions (the mode of regulation) have been mismatched with the new post-Fordist technologies (the accumulation regime). Difficulties from the mismatch will be resolved once institutions are transformed in a post-Fordist vein and the next expansion can begin. The ageing crisis, as perceived and discussed since the 1980s, becomes a facet of the transition to post-Fordism. Demographic problems have come about within Fordism and will, it is argued, be alleviated by post-Fordist arrangements for pensions, welfare and retirement. Parallel with population ageing, there is a wholesale switch to a new regulation mode.

Technology may have created and intensified the problems of population ageing in several ways. Technical changes were a causal factor behind demographic change, as they permitted rising living standards and falling mortality and fertility. As well as this, they heightened the economic importance of age. The Fordist work environment divided work from retirement and spawned a life cycle with fixed age thresholds; Fordism also promoted public services and benefits including retirement pensions, social assistance and health care. The institutional setting for the ageing crisis - high levels of age-related public spending - can be traced back to Fordist technology.

Likewise, the technical changes of post-Fordism might be construed as quelling the ageing crisis. Microelectronics, automation and information technology facilitate smaller-scale, diversified production that no longer has to be hierarchically organised and centrally administered. The division between work and retirement is weakened, and the retirement age loses its prominence. At a wider social level, post-Fordism transforms the welfare state into something smaller and more fluid. Post-Fordist technologies reduce the need for age categorisations and soften the blow of population ageing.

The post-Fordist resolution of the ageing crisis, plausible as it may seem, depends on whether post-Fordism exists as a phase of economic development. As yet we do not know whether microelectronics and computing will have the fundamental effects predicted for them. Causal links between technology and social change are intricate, and institutions may

not be responding to earlier technical developments. On the contrary, technology and institutions may interact in a complex process of simultaneous and dual causality.

### *5.3 Institutional Approaches*

The circumstances of older people are contingent on social institutions and vary among countries, over time, and within a given society. Institutionalised ageing, usually described as the social construction of old age, is discussed in social gerontology (Phillipson, 1982, 1998; Bond, Coleman and Peace, 1993; Binstock and George, 1996). Pivotal to the modern experience of old age has been formal retirement coupled with pensions (Myles, 1989). In pre-industrial and early capitalist societies, most people worked until physically incapable of doing so. Formal retirement and occupational pensions appeared in the 19th century, to be followed by state retirement pensions in the 20th; at first these arrangements covered a minority of workers, but they became the norm in the late 20th century (Hannah, 1986; Midwinter, 1997, Part I). Little in modern technology seems to demand withdrawal from work at a fixed, uniform age. Retirement has been institutionalised, but it may not be the product of any particular technology.

If Fordist arrangements for older people were socially constructed, then the same will be true of post-Fordist arrangements. The ageing crisis has fulfilled an ideological role by giving a pretext for welfare retrenchment (Quadagno, 1989; Walker, 1990; Minkler and Robertson, 1991; Vincent, 1996). People would normally be reluctant to accept cuts in pensions and benefits, but if they can be persuaded that the economy faces a demographic crisis they might acquiesce in this. Discretionary reforms might be disguised as an inevitable, common-sense adjustment to external changes beyond anyone's control (Jackson, 1994; 1998, Chapter 4). The ageing crisis would then be a strand in a broader movement towards privatisation and *laissez faire*.

Institutional changes affecting older people have causes other than population or technology. The period since the 1980s has witnessed the spread of neo-liberalism; both post-Fordism and population ageing have been linked with privatisation and deregulation

policies. Ideology may have fuelled economic reforms that were rationalised as responses to demographic or technical change. An autonomous effect of ideology would chime with idealist theories of history or with non-reductionist varieties of materialism. Allowing for ideological pressures introduces discretion into recent policy changes: they were not inevitable and resulted at least partly from premeditated decisions by policy-makers. Other policies might have been available but were less attuned to the current climate of opinion and therefore rejected.

With a socially constructed old age, the distinction between a demographic problem and an institutional solution becomes false. Chronological age obtains its significance from institutional age thresholds, and different institutions might give it less importance. Under Fordist pension and welfare schemes the age structure does have implications for public budgets, but not as a consequence of ageing alone. The policy difficulties and any proposed remedies are institutional and should be perceived as such. Analysis of population ageing should acknowledge institutional context and treat demographic trends as one structural change among others.

The social construction of old age can be criticised for overemphasising how institutions have moulded the experience of the elderly. 'Social construction' implies that old age is an artefact of institutions and would not exist without them, yet ageing has a biological core common to all societies. While institutions can influence ageing, they can never abolish it or explain its existence: they mediate old age rather than construct it. Material production can likewise bear upon ageing and its role may be underestimated in a solely institutional approach. Arguments for a socially constructed old age could veer towards a reductionist idealism akin to the reductionism of demographic or technological approaches. A full account of ageing must register its institutional setting but also its biological and material sides.

Population, technology and institutions are interdependent, and it would be unwise to assign causal precedence to any of them. A safer way of proceeding is to look at recent structural

changes in general terms, without identifying fundamental causes, and consider how post-Fordism and population ageing sit within the broader trends.

## **6. The Privatisation of Old Age**

Retirement practices in the post-Fordist era are expected to erode the Fordist life cycle and diversify individual experience. The result will be privatisation of old age, in other words, a shift away from a publicly regulated and standardised timetable of ageing. Pre-Fordist conditions will not return, but retirement thresholds will become hazier and less uniform. The keynote will be a movement from public to private, rather than a breakdown of retirement: private formal arrangements will replace public formal ones. Often privatisation has been equated with flexibility and choice, but this should not be taken for granted.

It is helpful to distinguish between flexible and gradual retirement: flexible retirement lets people choose their retirement date; gradual retirement permits a smooth decline in working hours as opposed to a sudden jump from work to retirement (Parker, 1982, Chapter 8). The two properties vary independently to yield the four modes of retirement in Figure 1. Flexibility with gradualness allows a choice of retirement path; without gradualness it gives a choice of retirement date but rules out a steady decline in working hours. Inflexibility with gradualness leads to a smooth retirement path but gives no choices; without gradualness it sets a fixed retirement date. Trends towards flexible retirement do not guarantee gradual retirement, and the distinction between them should be borne in mind.

**Figure 1.** Flexible and gradual retirement

	Gradual	Single-date
Flexible	Choice of retirement path	Choice of retirement date
Inflexible	Fixed retirement path	Fixed retirement date

Flexible or gradual retirement are almost certain to be limited. Gradual retirement seldom betokens a smooth decline in working time towards zero and occurs chiefly through stepwise reductions in working hours as the worker switches from full-time to part-time employment. The retirement path falls short of smoothness, though it avoids an abrupt leap from work to retirement. Flexibility too usually has limits. The options open to the retiree depend on the government and employers, who also have an interest in working hours. Most proposals for flexible retirement keep some restrictions on choice. An example from recent UK discussion is the 'decade of retirement' that replaces a single retirement age with a ten-year age band between 60 and 70: retirees must stay within the ten-year band but can otherwise choose their retirement date (Schuller and Walker, 1990). Greater flexibility of retirement is unlikely to remove all compulsion, and both government and employers will still have a say in retirement behaviour.

Two further properties of retirement are the degree of standardisation and the extent of employer control. Standardised retirement binds people to a retirement norm; it requires public regulation and is incompatible with flexible retirement, which allows differing retirement ages. Standardisation can be combined with gradual retirement, however, if everyone has the same retirement path with steadily declining working hours. Another property is the extent to which employers determine retirement practices. Decentralising retirement cannot alone provide flexibility: once the state no longer regulates retirement, employers may step in to control and manipulate it. Unstandardised retirement sometimes entails retirement practices imposed from above by employers.

During the Fordist era retirement did not always stick to the statutory retirement age. Some employees in occupational pension schemes negotiated alternative retirement dates while still claiming their pension - this gave them *de facto* flexible retirement. Other employees, less fortunate, found themselves urged to take early retirement as a way of reducing the labour force in times of recession. Their retirement was little more than disguised unemployment and led to the receipt of welfare benefits rather than occupational pensions. Divergences from the norm happened for different reasons and had different consequences for the retirees. Fordist retirement regulations were never totally binding and could be circumvented when the need or desire arose. The tacit flexibility, a harbinger of future trends, casts doubt on the novelty of post-Fordism.

Retirement could gravitate towards any of the four modes in Figure 1. A fixed retirement path seems the least credible case, for it needs complex public regulation and swims against the tide of privatisation. Even if this case is discounted, retirement might still develop in several ways, as Figure 2 shows. In the Fordist benchmark, retirement is standardised, neither flexible nor gradual, and takes place at a statutory retirement age. Against the benchmark can be set three possible post-Fordist cases: A, B and C.

**Figure 2.** Retirement under Fordism and post-Fordism

		Fordism	Post-Fordism		
			Case A	Case B	Case C
Properties of retirement	Flexible	No	Yes	Yes	No
	Gradual	No	Yes	No	No
	Standardised	Yes	No	No	No
	Employer- determined	No	No	No	Yes

Case A fulfils the post-Fordist promise of flexibility and personal choice. As state regulations are lifted, people gain freedom to plan their retirement. Hours of work can be reduced steadily if desired, and retirement practices become diversified. Employers honour the choices of their employees and make no attempt to manipulate retirement. A person's career involves smooth transitions between education, work and retirement without the fixed boundaries of the Fordist life cycle - this can be termed a post-Fordist life course.

Case B differs from case A in the unavailability of gradual retirement. People cannot opt for a steady decline in working hours, but they can choose a single retirement date. Retirement is flexible, on post-Fordist lines, while retaining a Fordist split between work and retirement. Employers abide by people's wishes concerning the retirement date and do not limit the options available. The outcome is a discretionary Fordist life cycle, in which the education/work/retirement boundaries remain but are susceptible to personal choice.



Case C envisages retirement being deregulated without becoming flexible or gradual. The statutory retirement age recedes but is not replaced by personal choice, and employers decide the speed and timing of retirement. People's experiences become diversified as employers introduce varied retirement practices, yet the individual has neither flexibility nor gradualness of retirement. This creates a privatised Fordist life cycle, in which the boundaries between work and retirement are set by the private sector rather than the state or individuals.

The three cases could coexist: some people might have genuine retirement choices, whereas others might be constrained by their employers. It could be unclear whether a retirement decision is voluntary or steered by external incentives from employers or the state. Actual retirement behaviour could be a mixture of cases A to C. Only case A gives the comprehensive flexibility of the post-Fordist ideal; the other two give at best a limited choice over retirement and maintain the education/work/retirement divisions of Fordism. A post-Fordist life course could become the preserve of a privileged minority. For the rest, Fordist life cycles might continue in discretionary or privatised versions without the support of state pension schemes.

The resurgent power of business interests in recent years means that a privatised Fordist life cycle seems likely. Retirement would then be little changed from Fordism, except that retirement ages would be less uniform and predictable - the only novelty would be the privatisation of old age, with a dominant role for private employers. Post-Fordism, on the lines of case C, would not undo the periodised Fordist life cycle but would transfer the means of periodisation from the public to the private sector. The upshot of post-Fordism would be privatisation, not a relaxing of socially constructed retirement. Whether this justifies the name 'post-Fordism' is a moot point: it would see new arrangements (the privatisation of old age) combined with surviving Fordist ones (the work/retirement dichotomy). Most people would get little of the flexibility and choice that supposedly marks out post-Fordism.

The post-Fordist ideal of case A may never be attained on a large scale. Deregulated retirement and private pensions cannot ensure genuine retirement choices, and constraints on retirement behaviour will linger in many cases. The outcome is liable to be diversity without

choice; individual experiences will multiply, but only a fraction of these will amount to truly flexible and gradual retirement. Persistent Fordist retirement practices will blur the transition to post-Fordism and delay (perhaps indefinitely) the arrival of the post-Fordist life course.

## **7. Conclusion**

Links between post-Fordism and population ageing exist on several levels, material, institutional and ideological. At the economic or material level, new technologies and ageing populations are endogenous to long-run economic development, as the demographic transition suggests, and neither of them are external influences on the economy. They are correlated as components of structural change without having a neat causal relationship.

At the institutional level, the predicted consequences of post-Fordism and population ageing have much in common, including privatisation, reduced public expenditure, later retirement and cuts in pensions and benefits. All these consequences fall within a larger scheme; technology and population have not dictated the policy changes, and other causal factors are relevant. Far from being primary causes of institutional change, post-Fordism and the ageing crisis are symptoms of a wider drift towards privatisation and *laissez faire* that cannot be explained through technology or population alone.

At the ideological level, technical change and population ageing provide depoliticised accounts of why it is essential to curtail the welfare state. Economic effects have been exaggerated and portrayed as natural and inevitable, in order to deflect attention from the choices behind policy reforms. Whether consciously or otherwise, arguments about technical and demographic change can bolster neo-liberal ideology, and one should recognise this when evaluating them.

The academic literatures on post-Fordism and population ageing have picked out certain trends and overstated their causal importance. Such reductive approaches might be defended

as necessary abstractions, or even as rhetorical devices to highlight specific policy matters, but technical or demographic changes cannot safely be regarded as external events acting upon the economy. Technical change must be mediated by institutions and never arises independently; population ageing happens only because changing economic and social conditions bring about falls in mortality and fertility. A complete analysis of post-Fordism and population ageing would have to place them within a rich, stratified framework that allows for complex causality and avoids technological or demographic determinism.

## References

- Aglietta, M. (1979) *A Theory of Capitalist Regulation* (London, New Left Books).
- Amin, A. (1994) Post-Fordism: models, fantasies and phantoms of transition, in: A. Amin (Ed.), *Post-Fordism: A Reader* (Oxford, Blackwell).
- Anderson, M. (1971) Family, household and the Industrial Revolution, in: M. Anderson (Ed.), *The Family* (Harmondsworth, Penguin).
- Binstock, R.H. and George, L K. (Eds) (1996) *Handbook of Aging and the Social Sciences*, 4th edn (San Diego CA, Academic Press).
- Bond, J., Coleman, P. and Peace, S.M. (Eds) (1993) *Ageing in Society: An Introduction to Social Gerontology*, 2nd edn (London, Sage).
- Boyer, R. (1990) *The Regulation School: A Critical Introduction* (New York, Columbia University Press).
- Boyer, R. and Saillard, Y. (Eds) (2002) *Regulation Theory: The State of the Art* (London, Routledge).
- Casey, B., Oxley, H., Whitehouse, E., Antolin, P., Duval, R. and Leibfritz, W. (2003), Policies for an ageing society: recent measures and areas for further reform, *OECD Economics Department Working Papers*, No. 369.
- Charness, N. (Ed.) (1985) *Ageing and Human Performance* (Chichester, John Wiley).
- Cowgill, D.O. and Holmes, L.D. (Eds) (1972) *Aging and Modernisation* (New York, Appleton).

- Cumming, E. and Henry, W. (1961) *Growing Old: The Process of Disengagement* (New York, Basic Books).
- Dang, T.T., Antolin, P. and Oxley, H. (2001), Fiscal implications of ageing: projections of age-related spending, *OECD Economics Department Working Papers*, No. 305.
- Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism* (Cambridge, Polity Press).
- Estes, C.L. (2001) *Social Policy and Aging: A Critical Perspective* (London, Sage).
- Freeman, C. and Louca, F. (2001) *As Time Goes By: From the Industrial Revolutions to the Information Revolution* (Oxford, Oxford University Press).
- Fries, J.F. (1980) Aging, natural death and the compression of morbidity, *New England Journal of Medicine*, 303, pp. 130-135.
- Fries, J.F. and the Health Project Consortium (1993) Reducing health care costs by reducing the need and demand for medical services, *New England Journal of Medicine*, 329, pp. 321-325.
- Gordon, D.M. (1980) Stages of accumulation and long economic cycles, in: T.K. Hopkins and I. Wallerstein (Eds), *Processes of the World-System* (London, Sage).
- Guillemard, A-M. (1989) The trend towards early labour force withdrawal and the reorganisation of the life course: a cross-national analysis, in: P. Johnson, C. Conrad and D. Thomson (Eds), *Workers Versus Pensioners: Intergenerational Justice in an Ageing World* (Manchester, Manchester University Press).
- Hannah, L. (1986) *Inventing Retirement: The Development of Occupational Pensions in Britain* (Cambridge, Cambridge University Press).
- Hansen, A.H. (1939) Economic progress and declining population growth, *American Economic Review*, 29, pp. 1-15.
- Jackson, W.A. (1992) Population ageing and intergenerational conflict: a post-Keynesian view, *Journal of Economic Studies*, 19, pp. 26-37.
- Jackson, W.A. (1994) The economics of ageing and the political economy of old age, *International Review of Applied Economics*, 8, pp. 31-45.
- Jackson, W.A. (1998) *The Political Economy of Population Ageing* (Cheltenham, Edward Elgar).
- Jackson, W.A. (2001) Age, health and medical expenditure, in: J. B. Davis (Ed.), *The Social Economics of Health Care* (London, Routledge).

- Jacobs, K., Kohli, M. and Rein, M. (1991) The evolution of early exit: a comparative analysis of labour force participation patterns, in: M. Kohli, M. Rein, A-M. Guillemand and H. van Gunsteren (Eds), *Time for Retirement* (Cambridge, Cambridge University Press).
- Jessop, B. (1994) The transition to post-Fordism and the Schumpeterian Workfare State, in: R. Burrows and B. Loader (Eds), *Towards a Post-Fordist Welfare State?* (London, Routledge).
- Jessop, B. (2002) *The Future of the Capitalist State* (Cambridge: Polity Press).
- Johnson, P. and Falkingham, J. (1992) *Ageing and Economic Welfare* (London, Sage).
- Kohli, M. (1986) The world we forgot: an historical review of the life course, in: V.W. Marshall (Ed.), *Later Life: The Social Psychology of Ageing* (London, Sage).
- Kotz, D.M. (1990) A comparative analysis of the theory of regulation and the social structures of accumulation theory, *Science and Society*, 54, pp. 5-28.
- Laczko, F. and Phillipson, C. (1991) *Changing Work and Retirement* (Milton Keynes, Open University Press).
- Laslett, P. (1977) *Family Life and Illicit Love in Earlier Generations: Essays in Historical Sociology* (Cambridge, Cambridge University Press).
- Livi-Bacci, M. (2001) *A Concise History of World Population*, 3rd edn (Oxford, Blackwell).
- Midwinter, E. (1997) *Pensioned Off: Retirement and Income Examined* (Buckingham, Open University Press).
- Minkler, M. and Robertson, A. (1991) The ideology of age/race wars: deconstructing a social problem, *Ageing and Society*, 11, pp. 1-23.
- Myles, J. (1989) *Old Age in the Welfare State: The Political Economy of Public Pensions* (Lawrence KS, University of Kansas Press).
- Myles, J. (1990) States, labor markets and life cycles, in: R. Friedland and S. Robertson (Eds), *Beyond the Marketplace: Rethinking Economy and Society* (New York, Aldine de Gruyter).
- Nolan, P. (1994) Fordism and post-Fordism, in: P. Arestis and M.C. Sawyer (Eds), *The Elgar Companion to Radical Political Economy* (Aldershot, Edward Elgar).
- O'Connor, J. (1973) *The Fiscal Crisis of the State* (New York, St Martin's Press).
- OECD (1998) *Maintaining Prosperity in an Ageing Society* (Paris, OECD).
- OECD (2000) *Reforms for an Ageing Society: Social Issues* (Paris, OECD).

- Pacolet, J., Bouten, R., Lanoye, H. and Versieck, K. (2000) *Social Protection for Dependency in Old Age: A Study of the Fifteen EU Member States and Norway* (Aldershot, Ashgate).
- Palley, T.I. (1998) The economics of social security: an old Keynesian perspective, *Journal of Post Keynesian Economics*, 21, pp. 93-110.
- Parker, S. (1982) *Work and Retirement* (London, George Allen and Unwin).
- Phillipson, C. (1982) *Capitalism and the Construction of Old Age* (London, Macmillan).
- Phillipson, C. (1998) *Reconstructing Old Age: New Agendas in Social Theory and Practice* (London, Sage).
- Pierson, C. (1998) *Beyond the Welfare State: The New Political Economy of Welfare*, 2nd edn (Cambridge, Polity Press).
- Piore, M. and Sabel, C.F. (1984) *The Second Industrial Divide: Possibilities for Prosperity* (New York, Basic Books).
- Quadagno, J. (1989) Generational equity and the politics of the welfare state, *Politics and Society*, 17, pp. 353-376.
- Reddaway, W.B. (1939) *The Economics of a Declining Population* (London, George Allen and Unwin).
- Rein, M. and Jacobs, K. (1993) Ageing and employment trends: a comparative analysis for OECD countries, in: P. Johnson and K. F. Zimmermann (Eds), *Labour Markets in an Ageing Europe* (Cambridge, Cambridge University Press).
- Schneider, E.L. and Brody, J.A. (1983) Aging, natural death and the compression of morbidity: another view, *New England Journal of Medicine*, 309, pp. 854-856.
- Schuller, T. and Walker, A. (1990) *The Time of Our Life: Education, Employment and Retirement in the Third Age*, IPPR Employment Paper No. 2 (London, IPPR).
- Schulz, J.H. (2002) The evolving concept of 'retirement': looking forward to the year 2050, *International Social Security Review*, 55(1), pp. 85-105.
- Thomson, D. (1989) The welfare state and generation conflict: winners and losers, in: P. Johnson, C. Conrad and D. Thomson (Eds), *Workers Versus Pensioners: Intergenerational Justice in an Ageing World* (Manchester, Manchester University Press).
- Tylecote, A. (1991) *The Long Wave in the World Economy: The Present Crisis in Historical Perspective* (London, Routledge).
- United Nations (2002) *World Population Ageing 1950-2050* (New York, United Nations).

- Verbrugge, L.M. (1984) Longer life but worsening health? Trends in health and mortality of middle-aged and older persons, *Milbank Memorial Fund Quarterly*, 62, pp. 473-519.
- Vincent, J. (1996) Who's afraid of an ageing population? Nationalism, the free market and the construction of old age as an issue, *Critical Social Policy*, 16, pp. 3-26.
- Walker, A. (1981) Towards a political economy of old age, *Ageing and Society*, 1, pp. 73-94.
- Walker, A. (1990) The economic 'burden' of ageing and the prospect of intergenerational conflict, *Ageing and Society*, 10, pp. 377-396.
- Walker, A. (1996) Intergenerational conflict and the provision of welfare, in: A. Walker (Ed.), *The New Generational Contract: Intergenerational Relations, Old Age and Welfare* (London, UCL Press).
- Walker, A. and Maltby, T. (1997) *Ageing Europe* (Buckingham, Open University Press).
- Warr, P. (1994) Research into work performance of older employees, *Geneva Papers on Risk and Insurance*, 19, pp. 472-480.
- World Bank (1994) *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth* (Washington DC, Oxford University Press).
- Wray, L.R. (1989) A Keynesian presentation of the relations among government deficits, investment, saving, and growth, *Journal of Economic Issues*, 23, pp. 977-1002.