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**ACTUARIAL FAIRNESS OR SOCIAL JUSTICE?  
A GENDER PERSPECTIVE ON REDISTRIBUTION IN  
PENSION SYSTEMS**

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### **A gender perspective on redistribution in pension systems**

Concern about how population ageing and early exit from the labour force may threaten the sustainability of public pension schemes has dominated discussion on pension reform, accompanied by claims that transfers in public pension schemes will place an unfair burden on future generations (Auerbach et al. 1994). Hence a common policy aim has been to curb the cost of state pensions and promote private provision, although the mode of implementing this has varied across OECD countries (Rein and Schmahl 2004; Lloyd-Sherlock and Johnson 1996). Generally reforms have tightened the link between pension entitlements and contributions, increasing what has been termed ‘actuarial fairness’ but such reforms affect men and women differently.

A gender perspective – in which the relationship of gender roles to employment, earnings and pension acquisition is addressed - has been lacking in debate on pension reform. Women comprise the majority of older people. Yet the ‘policy stereotype’ used in pension planning is an individual employed continuously from age 21 to 65, full time on average earnings (PPI 2004). Simulation models based on this policy stereotype overestimate the pension entitlements women will acquire.

The priority accorded to actuarial fairness at the expense of social fairness (Luckhaus and Moffat 1996) is called into question by a gender perspective. Gender denotes not merely the categories of male and female but the social roles and relationships that shape patterns of paid and unpaid work during the lifecycle. In developed societies, the typically masculine pattern of continuous unfettered full time employment contrasts with a typically feminine one of interrupted and partial attachment to the labour market, with periods of family caring. Differentiation in men’s and women’s roles varies among societies, depending on whether a male breadwinner-female homemaker model or a more egalitarian arrangement is the norm (Lewis 1992). Of course, within any society men and women do not all fall neatly into gender-typical patterns and the full time continuous employment pattern is becoming less common among men (Sarfati 2002).

In this paper, I argue that redistribution in pension systems towards those who provide care for children and other family members is justified in terms of equity and social quality. The paper is concerned with pension income to which individuals have unconditional legal entitlement (including spouse and survivors’ pensions), since income provided at the discretion of family members or through means-tested social assistance programmes implies poverty, dependence and loss of dignity (Sen, 1984). First, the gender gap in pensions, and how this relates to the varying public-private mix in different countries, is considered. This is followed by comparison of the impact of motherhood on women’s employment and earnings across countries. Ways of redistributing towards carers in EU state pension schemes are next outlined and contrasted with the reverse redistribution due to private pensions. The claim that privatisation, and other reforms increasing actuarial fairness, are necessary to preserve intergenerational equity is questioned. Finally, policy aims that tend to conflict – increasing women’s employment while also maintaining their reproductive roles – are considered in relation to pension provision.

### **The gender gap in pension income**

Older women bear a disproportionate share of poverty throughout the OECD, having lower personal incomes than older men, due mainly to smaller pensions (Dooghe and Appleton 1995; Walker and Maltby 1997; Eurostat 2001). However, women's pension income as a proportion of men's varies across countries - 66 per cent in Italy, 60 per cent in Britain, 56 per cent in France and 42 per cent in Germany (Walker and Maltby 1997). This cross-country variation results from differences in both women's employment rates and the design of pension systems.

Measuring and comparing the gender gap in pension income is problematic. Personal income of married individuals is rarely analysed; instead equal sharing of income within couples is assumed. As gender inequality of income is widest among those who are married (Ginn and Arber 1999; Arber and Ginn 2004), this assumption obscures overall differences between men's and women's pension income, frustrating international comparisons of gender inequality and how this relates to the design of pension systems. However, some indications can be obtained from data on the pension incomes of non-married older people.

Pension income from private and state pensions in ten countries was analysed by Makinen (2002) using Luxembourg Income Study data. Among non-married individuals aged over 70, women's average pension income as a proportion of men's was lowest - 69 per cent - in Britain, between 73 and 78 per cent in the US, Germany, France, Finland and Sweden, but nearly 100 per cent in Denmark (Table 1, column 3). In Britain and the US, where private pensions are relatively important, women's state pension income was 92 per cent of men's but the gender gap was much wider in private pension income. Thus British non-married women aged over 70 received only 40 per cent of the private pension income of their male counterparts. In Germany and Sweden, the gender gap in state pension income was quite large, reflecting the earnings-related structure of the social insurance schemes. A high degree of gender equality of later life income is seen in Denmark. This is due mainly to the redistributive effect of the residence-based citizen's pension, since only 4 per cent of these women's total pension income was from private pensions.

Table 1 about here

To illustrate the gender inequality resulting from the highly privatised pension system in Britain, median incomes of men and women aged 65+ are shown in Figure 1 and the proportions reliant on means tested social assistance in Figure 2.

Figures 1 and 2 about here

The next section considers how women's lower pensions stem from their caring roles.

### **Motherhood – effects on employment and earnings**

The caring commitments entailed in motherhood (or in having frail parents) constrain women's employment, earnings and ability to contribute to pension schemes in most countries (Ginn et al. 2001; Ginn 2003). For example, among British women aged 24-44, 76 per cent of those without children were employed full time compared with only 26 per cent of mothers (Harkness and Waldfogel 1999). A 'family gap' in employment can be seen among women in most OECD countries, with mothers of

two or more children having lower employment rates and shorter hours than childless women (see Table 2). However, in the Nordic countries, with an egalitarian ethos and well-developed services for childcare and eldercare, the family gap is small and women's employment rate is higher than in the rest of the EU. Since obtaining a substantial pension depends on full time employment, Figure 3 compares women's rates of full time employment in 1990 and 2000. Although some countries show an increase, there is no consistent upward trend.

Table 2 and Figure 3 about here

Family caring also magnifies the gender pay gap, partly due to the low wages associated with women's part time jobs. For example, employed British mothers of two children earned 24 per cent less than similar childless women (Harkness and Waldfogel 1999). The forgone earnings of a British married mid-skilled mother of two as a result of childcare constraints on employment have been estimated by Davies et al. (2000) at about half the earnings of a similar childless woman. Motherhood dramatically reduces British women's likelihood of full time employment, and hence in their earnings and ability to contribute to private pension schemes, irrespective of their level of education (Ginn and Arber 2002). For lone mothers (divorced, never married or widows) the effect of motherhood on employment and earnings is even greater than for married mothers, due to greater difficulty in paying for childcare. Mothers' earnings loss relative to childless women extends throughout the working life, since gaps in employment and part time work tend to reduce occupational status (Dex 1987, 1990).

Legislation on equal pay and prohibition of sex discrimination in employment have had welcome but limited effects. Gender differences in hourly pay, occupational status and career trajectories persist in most OECD countries. Whereas men's earnings tend to rise with age, women's earnings decline from age 30, reflecting their interrupted employment and associated labour market segmentation. This flat age profile of earnings reduces pensions where these are based on final salary or on the last few years of paid work. Inequalities such as these limit the prospects of gender convergence in the capacity to build independent contributory pension entitlements.

Moving beyond equal treatment requires policies to reconcile family caring and employment, including legislation improving parents' rights at work, the provision of affordable, quality childcare and eldercare services, and equal sharing of domestic and caring work between women and men. Until this 'femtopia' is reached, the pension penalty due to family caring can be reduced by redistributive features in state pension schemes.

### **Redistribution towards women in state pension schemes**

EC law on sex equality in pensions has brought benefits to women, notably by abolishing discrimination against those who are married (Sohrab 1994; Luckhaus 1997) and equal treatment has also extended some benefits to men. However, the effects are limited to paid workers. To improve gender equality, a more radical approach is needed in which compensatory provisions in state pensions help those with caring responsibilities to obtain entitlements. Three types of compensatory rules are distinguished by Luckhaus (1997). These are survivor benefits, originally available only to widows in recognition of their past years of financial dependency;

measures that loosen the link between contributions and pension amount, for example through a 'best years' formula'; and third, specific protection to cover periods of caring.

#### *Derived pensions*

Historically, women have generally relied on state and private pension entitlements derived from their husband's contribution record. However, this route to social protection is becoming increasingly 'clumsy and obsolete' (Schokkaert and van Parijs 2003: 279), due to changes in patterns of family formation, especially the loosening link between marriage and motherhood (Ginn 2003). In Britain, for example, a quarter of women born in 1972 are predicted to be still childless by age 45, compared with only 11 per cent of women born in 1943 (FPSC 2000). Equally, the expectation that women who do raise children will be married has declined. For example, in Britain cohabitation has dramatically increased and the proportion of women aged 18-49 who were married fell from three quarters in 1979 to only half in 2001, while those who were single (never married) doubled from 18 per cent to over a third and those who were divorced and separated nearly doubled from 7 to 13 per cent (ONS 2002). Among women aged 16-59 with dependent children, only two thirds were married in 2001 (ONS 2002). Births outside marriage, due to divorce, cohabitation and unpartnered pregnancy, rose from 7 per cent in the early 1970s to 38 per cent in 1998, with over 60 per cent of these births registered by cohabiting couples (ONS 1999).

The decoupling of marriage and motherhood makes derived benefits not only ill-targeted but inequitable because substantial cross-subsidies are involved, as pointed out by Cuvillier (1979) and developed further by Jepsen and Meulders (2002). Derived pension rights apply irrespective of whether the beneficiary's employment opportunities have been constrained by raising children or caring for other family members. Thus the derived pensions of childless married women are subsidised by other scheme contributors, including non-married mothers, a financially-disadvantaged group. This applies in both state pension schemes and defined benefit private occupational schemes. It is doubtful whether this particular form of redistribution to women remains justifiable, given the social changes of the 20<sup>th</sup> century. Instead, it would be simpler and fairer to individualise pensions - phasing out derived benefits and replacing them with improved pension protection for those with caring commitments.

#### *Relaxing the contributions requirement*

Residence-based citizen's pensions break the link between contributions and pensions completely. In Denmark and the Netherlands, a citizen's pension is payable to all individuals fulfilling residence requirements, at age 67 in Denmark and 65 in the Netherlands. Flat-rate pensions, as in Britain and Ireland, while retaining a contributory requirement, largely remove the effect of the gender gap in earnings, thus redistributing towards the low paid, including part timers.

In half of the EU countries with earnings related pension schemes, the relevant earnings are calculated as an average over the working life (Belgium, Germany, Italy, Luxembourg, Sweden, Britain); in these countries periods of no/low pay would reduce the pension (Leitner 2001). The remainder use average earnings during last or later years (Finland, Greece, Spain) or the average in the best years (Austria, France, Portugal). Since women's earnings may not be highest towards the end of the working life, a 'best years' formula is more helpful to them than use of last years.

### *Specific protection for carers*

Most EU state pension schemes recognise family caring for pension entitlement purposes, although this is more common for childcare than for informal care of frail adults, as shown by Leitner (2001) (see Table 3b).

Table 3 about here

Two of the flat rate schemes (Britain and Ireland) have since the 1970s provided for those with caring responsibilities by reducing the number of qualifying years required for a full basic pension (Table 3a). In earnings related schemes, carer credits (or social insurance entitlements allowed in respect of caring years) are a common mechanism for improving women's ability to build a full state pension. The value of the credit depends on the notional contribution rate applied for the period covered, which may be a fraction of national average earnings or of the individual's recent earnings.

While carer-friendly features help women to acquire independent state pension entitlements, other rules, such as earnings or hours thresholds for access and a minimum-years threshold for eligibility, have disadvantaged women. Reforms to tighten the contribution-benefits link have included extending required contributory years and introducing notional defined contribution schemes. Where citizen's or basic pensions have been reduced to below the threshold for means tested benefits, as in Britain, this renders them ineffective in providing income security for carers.

However, the difficulties women experience in obtaining adequate entitlements in state pension schemes are dwarfed by their disadvantage in private schemes, as outlined below.

### **Reverse redistribution in private pensions**

Women are less likely to acquire any private pension than men and those who do generally receive smaller amounts in retirement (Ginn and Arber 1993; Ginn et al. 2001). Thus in Britain over 70 per cent of older men but only 43 per cent of older women have any income from private (ie occupational or personal) pensions, including widows' pensions (ONS 2001). Among full time employees, two thirds of both men and women contributed to a private pension in 2000, but among women part timers only one third did so. The proportions among all working age adults were lower, especially for women.

Private pensions are costly for the public purse. In Britain, spending on tax relief for private pension amounts to about £14bn per annum, equivalent to over 40 per cent of state spending on the basic NI pension (Sinfield 2002). Spending this amount of money to improve the basic pension could lift almost all British pensioners out of poverty. Tax relief is highly regressive, with half the benefit received by the top 10 per cent of taxpayers and a quarter by the top 2.5 per cent (Agulnik and Legrand 1998), perverse form of redistribution; roughly three quarters of the top 10 per cent of earners are men.

Increasing the private share of pension provision reinforces gender inequality of later life income in two ways: By redistributing substantial public resources towards men

and by reducing the state pensions that, for the majority of women, are their only source of pension income.

Recently it has been argued (Hyde et al. 2003) that pension privatization is not necessarily driven by the aim of welfare retrenchment, to the detriment of vulnerable social groups. These authors show that ideological orientation is important in shaping pension reforms and that the neo-liberal (or *Regulated Market*) model of privatisation, exemplified by Britain, is only one of several alternative models of pension privatisation. Other models include the *Social Partners* model, expressing a social reformist ideology (France) and the *Social Market* model, expressing reluctant individualism (Finland). Similarly, Rein and Schmahl (2004) identify distinct pathways of expanding private provision – contracting out (Britain), carving-out (Germany) and mandating collective contracts (Netherlands). However, despite diversity in reform pathways and in the nature of private pension schemes - accessible to all or selective, defined benefit or defined contribution, collectively negotiated or not, benefitting from employer contributions or not – private pensions do not redistribute to women as carers, only as widows of scheme members. All private schemes are earnings-related and most are now defined contribution, applying actuarially fair principles that inevitably leave women at a disadvantage. It is difficult to see how carer protection could be achieved in private pensions and considerable state intervention would be required.

In private voluntary pension schemes, the same size of pension fund buys an annuity for a woman that is about 10 per cent less than a man's, due to actuarial calculations reflecting women's greater average longevity. This practice may become unlawful if a recent EU Directive on gender equality in the provision of goods and services is agreed, yet this is uncertain as the issue is a contentious one. Some writers argue that (if women were otherwise equal to men) they should receive smaller state pensions for the same contributions due to their longer life expectancy (Schokkaert and van Parijs 2003). There are several reasons to resist this hypothetical argument: First, life expectancy statistics are only a guide to the risk of mortality and many women die younger than men. Is it equitable to discriminate against individual women on the basis of a difference between women and men as groups that is outside their control? Second, as pointed out by Myles (2003), married and cohabiting women who outlive their partners pay a heavy price, providing care during their partner's last illness and living on in the knowledge that when their own health fails they will not benefit from this privileged source of care and are very likely to rely on paid carers in a communal institution (Arber and Ginn 1991). Third, the assumption that longer life is a benefit should be questioned since older people do not necessarily prioritise quantity over quality. There is a high prevalence of disability and chronic illness among those aged over 75, especially women. For example, among unskilled women aged 75-9, over half had moderate or greater disability compared with only a fifth of equivalent men, due partly to selective survival of men (Arber and Ginn 1991).

### **Towards a gender-fair pension system**

A pension system in which each component ensures roughly equal entitlements between carers and non-carers is an ambitious aim, as long as gender differences persist in the domestic division of labour, employment and pay. The aim is achieved in a citizen's pension (which also redistributes to low paid non-carers). A flat rate pension with carer credits similarly redistributes to the low paid but restricts

compensation for gaps in employment to those defined as carers. An earnings related scheme with carer credits leaves low earners with lower pensions, unless a formula is applied to boost the replacement rate of the low paid. A 'few best years' formula could equalise entitlements between carers and non-carers but would not redistribute towards those with lifelong low pay. Leaving aside the question of redistribution between classes, a combination of the above design features, if implemented in a sufficiently generous manner, would do much to reduce the pension penalty of caring.

The cost of redistributive measures would be offset by lower spending on pensioner poverty relief. For example, in Britain the cost of means tested benefits is 1 per cent of GDP, or a fifth of the cost of state pension transfers, but current policy of reducing the value of state pensions mean the cost of means testing will rise by 2050 to 2.6 per cent of GDP, three quarters of the amount spent on state pensions (GAD 2003). Savings could also be made by abolishing or reducing tax relief on private pension contributions.

It is unlikely that anything near to equal entitlements between carers and non-carers could be achieved in private pensions. Moreover, publicly-subsidised expansion of private pensions is likely to create the political conditions required to reduce state pensions (as has already occurred in Britain). This is of course a major pensions policy aim across the OECD but it threatens to undermine the redistributive role of state pensions on which women depend.

### **Is pension privatisation necessary?**

For over two decades, expansion of private pensions at the expense of public has been vigorously advocated, amidst claims that public pensions are a drain on deficit-ridden economies, create untenable tax burdens for working age individuals (Longman 1987; Johnson *et al.* 1989; Kotlikoff 1992), limit national savings needed for capital investment (Feldstein 1974, 1982; Morgan 1984) and are less efficient than the market for providing future pensioners' retirement incomes (World Bank 1994). Further, it is claimed that population ageing changes the relative advantage between public Pay-As-You-Go and private funded pension schemes, with the latter less damaging to intergenerational equity.

Undoubtedly public pension schemes are challenged by population ageing and some combination of higher contributions and longer working for the same pension will be required. Despite this, claims that such schemes face a financial crisis are debatable (Street and Ginn 2001), as is the argument that a shift to private funded pensions is required (Minns 2001). First, projections are uncertain because it is decreasing fertility, rather than increasing longevity, that is the major reason for population ageing (Ermisch 1990). The birth rate could stabilize or increase with state support for childcare and more family-friendly employment practices. For example, in Sweden, where such policies operate, the birth rate has remained higher than in Britain. Second, in some countries (for example the US, Canada, Ireland, Australia and New Zealand), overall dependency ratios in the foreseeable future are slightly lower than in the past, when the baby boom flooded national demographic structures (Bos *et al.* 1994).

Third, any age-based dependency or support ratio is misleading since the proportion of the population employed, paying taxes and contributing to pension schemes is

more important for pension sustainability than age structure *per se*. Employment rates of women, of those aged 55-64 and of those over state pension age are all increasing, with scope for further increases, especially in the midlife age group (Taylor 2002). The support ratio has declined through the 20<sup>th</sup> century, yet public pension schemes did not collapse. In Britain, the support ratio fell from 14 in 1900 to about 3 in 1990, yet the effect has been compensated by rising employment of women and increasing productivity. On present trends a worker in 2041 will be the equivalent of more than two workers today (Mullan 2000). Similarly, Kune (2003) notes that real per capita output in western countries doubled between 1960 and 1995, concluding that pension schemes are sustainable with slightly higher pension contributions (paid out of higher incomes) and longer working.

Funded pension schemes are not immune to the effects of demographic change (Mabbett 1997; Merrill Lynch 2000). Falling annuity rates as insurers adjust to increasing longevity, a bulge generation liquidising assets, collapsing stock market bubbles and insolvency among companies can all contribute to smaller private pensions than predicted – or in the worst cases, complete loss of pensions. All these factors have contributed to the private pensions crisis in Britain since 2002. The state, using tax revenue, pays for these market failures in one way or another, for example by providing increased poverty relief for pensioners or underwriting private pension losses. Thus the assumption that privatising pensions avoids demands on the working generation is questionable. Switching partially or wholly to funded private pensions also brings the problem of double taxation, in which the working generation has to pay for the pensions of the older generation as well as for their own private pensions (Fornero 2003). As Hills (1995) notes, changing the generational contract in this way disadvantages the transitional generation, perversely creating the intergenerational inequity it was supposed to prevent.

Generational accounting – which has been used to justify increasing actuarial fairness in pension schemes - can only provide a crude measure of equity between generations since equity depends on more than state welfare (Hills 1995: 61). Such accounting ignores non-monetary contributions of many kinds that vary between generations. It disregards the social contributions pensioners made in the past, including the built environment, the foundation of healthy economies and a legacy of democratic institutions. It overlooks the productive contributions older citizens continue to make to civic life, social institutions and families, because they are not monetized (Street and Quadagno 1993; Myles and Street 1995; Bakker 1998; Attias-Donfut and Arber 2000). Generational accounting also neglects the myriad of vital supportive roles for kin performed by unpaid family carers that contributes to the welfare and even the survival of society. As Schokkaert and van Parijs (2003: 252) observe: ‘As a theory of justice this approach is a non-starter’.

### **Contributing to society’s survival or to pensions – no contest?**

The stark reality for most women is that, unless redistribution is designed into the pension system, they cannot both raise children and enjoy an adequate pension in later life. Men rarely face this choice.

Despite the need for women's greater participation in the labour market, it is important that mothers can make their own decisions about the right time for them to return to employment, leaving their children with others for part or all of the day. The

reproduction of society is about more than bearing children. It requires nurturing and socialisation of each generation of workers, on whom national productivity depends. As Himmelweit (1998) has argued, the paid economy depends on the unpaid work of women, since it requires a healthy, educated workforce. 'If insufficient time and resources are devoted to [unpaid care], productivity will suffer as human resources deteriorate and the social fabric is inadequately maintained' (ibid: 7). The practical tasks and less tangible emotional work done in caring for children or for frail relatives promotes a form of welfare that is hard to measure yet is vital to the continuation of a civilised society (Fast et al. 1999). If the role of mothers in caring for their children is 'a socially-relevant duty' (Schokkaert and van Parijs 2003: 275) then failure to protect their pension entitlements during periods of caring is clearly unjust.

Attias-Donfut and Arber (2000:15) highlight the way in which the gender contract, in assigning responsibility for the daily and generational reproduction of society to women, is the basis of material inequalities between women and men:

It is women who undertake the largest part of domestic tasks, the education of their children and the care of others. In undertaking this role, often in combination with paid work, they allow men more time to pursue their careers. The unpaid work of women brings a double contribution to welfare systems: On the one hand it increases the availability of men for paid work, and on the other hand it relieves the state of part of its obligation towards children, the elderly and the sick. More fundamentally, the physical reproduction of society depends upon women upholding the gender and generational contracts, since women are the guarantors of procreation.

Beck (1992) has commented that an economically rational society would be a childless one, but a socially rational society could not be. The reasons why more women are choosing childlessness, delaying starting a family and having fewer children may be connected with both the neo-liberal emphasis on the (paid) work ethic and increasing awareness among women of the earnings and pension costs of children. If women behave in accordance with economic rationality, maximising their earnings through full time continuous employment, their availability to care for children, husbands and ageing parents may lessen and fertility rates may continue to decline.

Low fertility is a major reason for the current decline in the working age population and it has been suggested that generations that have incurred lower costs through smaller average families should – and can afford to – pay more into pension schemes (Sinn 2000). However, as Schokkaert and van Parijs (2003) point out, individuals cannot be held responsible for average behaviour. The alternative of compensating individual mothers (and other carers) through credited pension entitlements – subsidised by social security contributions of non-carers - seems to meet this objection.

A policy dilemma arises because sustainability of any kind of pension scheme is improved by a high rate of women's employment, especially full time, while at the same time maintaining fertility, at least at the replacement rate. While an elite of partnered mothers in well-paid jobs can afford the comprehensive private childcare needed to maintain full time employment, the majority of mothers need state-

supported childcare as well as family-friendly working conditions if they are to continue in full time employment. Such services and adjustments are not cheap, yet may offer the best solution.

## **Conclusions**

In the debate on pension reform, the concepts and arguments employed have been gender-blind, ignoring the investment women make through their caring work for both older and younger generations at the expense of their paid work and pensions.

The impact of caring on employment and earnings is substantial where state care services are lacking and where working conditions are not adapted to reconcile paid work with family responsibilities. For the majority of women, who have gaps in employment and periods of low pay, flat rate or citizens pensions set at a generous level are most important, although redistributive features in state second tier defined benefit pensions can also help prevent poverty in later life. Private pensions, however, translate low lifetime earnings into low pensions. While state schemes may provide some protection for periods of unpaid caring, private pensions do not.

Increasing actuarial fairness in pensions, implying a closer relationship between pensions and contributions, will reinforce the existing injustice in which the price of performing unpaid caring roles is low pensions and poverty in later life. Although most countries provide poverty relief, means tested social assistance that requires older people to parade their poverty is no substitute for the dignity and security of an unconditional pension. Actuarial fairness is at odds with social justice.

A gender-sensitive analysis of pension systems is relevant not only to women. As labour markets are further deregulated with growth of contingent work, insecure and part time employment, the features of pension systems which tend to benefit women become more important for men as well, especially those who are low paid.

If economic rationality prevailed and the prospect of earnings and pension losses were to deter women from childbearing or providing adequate care for their children, there would be adverse effects on pension systems, the economy and the quality of social life. Ginn et al (2001: 234-5) comment that;

Societies have choices to make concerning women's (and men's) unpaid work of caring for others. Is such work to be regarded as a purely private matter, or recognized as a vital contribution to the welfare and ultimately the survival of society? If caring is acknowledged as work, policies are needed to support those who provide care, rewarding their unpaid as well as their paid work. For women, and increasingly for men too, this will mean challenging the fashionable but flawed arguments for pension privatization and reversing the tide of state welfare retrenchment.

While population ageing presents pension schemes of all types with challenges, it should not determine a policy of retrenchment, closing off other options for the distribution of resources. If increased saving is required, a convincing case for directing this into private instead of state pensions is lacking. The residual social protection model in which private pensions play a substantial role, gives rise to

'widening inequality [which] leads to distress and misery for those at or near the bottom and anxiety for those in the middle. Left unchecked it could also undermine the stability and moral authority of the nation'  
(Robert Reich, former US Secretary of Labour, 1997, cited in Buti et al. 1999).

A similar concern has been expressed in Europe, where adequate social protection for all is seen as essential to productivity, mobility and social cohesion: 'social security has a cost but it can cost more economically, socially and politically to be without social security' (Council of Europe 2004: 1).

## References

- Agulnik, P., and Le Grand, J. (1998) 'Tax Relief and Partnership Pensions', *Fiscal Studies*, Vol. 19(4): 403-28.
- Arber, S. and Ginn, J. (1991) *Gender and Later Life: A Sociological Analysis of Resources and Constraints*. London: Sage.
- Arber, S. and Ginn, J. (2004) 'Ageing and gender. Diversity and change', pp. 1-14, *Social Trends No. 34*, London: Office for National Statistics,
- Attias-Donfut, C. and Arber, S. (2000) 'Equity and solidarity across the generations', pp. 1-21 in S. Arber and C. Attias-Donfut, (eds) *The Myth of Generational Conflict: The family and state in ageing societies*. London: Routledge.
- Auerbach, A., Gokhale, J. and Kotlikoff, L. (1994) 'Generational accounting. A meaningful way to evaluate fiscal policy', *Journal of Economic Perspectives*, 8: 73-94).
- Bakker, I. (1998) *Unpaid Work and Macroeconomics: New discussions, new tools for action*. Ottawa: Status of Women Canada, Research Directorate.
- Beck, U. (1992) *Risk Society*, London: Sage.
- Bos, E, Vu, M., Massiah, E. and Bulatao, R. (1994) *World Population Projections 1994-5*, Washington DC: The International Bank for Reconstruction and Development/World Bank.
- Council of Europe (2004) 'Future of social security in Europe', *Report of the Committee on Social, Health and Family Affairs*, Parliamentary Assembly, Strasbourg: Council of Europe.
- Cuvillier, R. (1979) The housewife: an unjustifiable burden on the community, *Journal of Social Policy*, 8(1): 1-26.
- Davies, H., Joshi, H. and Peronaci, R. (2000) 'Forgone income and motherhood: What do recent British data tell us?' *Population Studies*. 54: 293-305.
- Dex, S. (1987) *Women's Occupational Mobility: A lifetime perspective*. Basingstoke: Macmillan.
- Dex, S. (1990) Occupational mobility over women's lifetime, in G. Payne and P. Abbott (eds) *The Social Mobility of Women: Beyond male models*. Basingstoke: Falmer.
- Dooghe, G. and Appleton, N. (1995) *Elderly women in Europe. Choices and Challenges*, London: Anchor Housing.
- Eurostat (2001) *The Life of Women and Men in Europe. A statistical portrait*, Luxembourg: Eurostat.

- Ermisch, J. (1990) *Fewer Babies, Longer Lives*, London:
- Feldstein, M. (1974) Social Security, induced retirement, and aggregate capital accumulation, *Journal of Political Economy*, 82(5): 905-926.
- Feldstein, M. (1982) Social Security and private saving: Reply, *Journal of Political Economy*, 90(4): 630-642.
- Family Policy Study Centre (2000) 'New options and new ways of living', *Families Today* Factsheet 1: 3-4.
- Fast, J., Williamson, D. and Keating, N. (1999) 'The hidden costs of informal elder care' *Journal of Family and Economic Issues*, 20(3): 301-326.
- Fornero, E. (2003) 'From pension design to pension reform', *Journal of European Social Policy*, 13(3): 273-5.
- Ginn, J. (2003) *Gender, Pensions and the Lifecourse*, Bristol: Policy Press
- Ginn, J. & Arber, S. (1993) 'Pension Penalties: The Gendered Division of Occupational Welfare', *Work, Employment and Society*, 7(1): 47-70.
- Ginn, J. and Arber, S. (1999) 'Changing patterns of pension inequality: the shift from state to private sources', *Ageing and Society*, 19(3): 319-342.
- Ginn, J. and Arber, S. (2002) 'Degrees of freedom: Can graduate women avoid the motherhood gap in pensions?' *Sociological Research On-line*, [www.socresonline.org.uk/7/2/](http://www.socresonline.org.uk/7/2/).
- Ginn, J., Street, D. and Arber, S. (2001) *Women, Work and Pensions: International issues and prospects*, Buckingham: Open University.
- Government Actuary Department (2003) *Government Actuary's Quinquennial Review of the National Insurance Fund*, Cm 6008, London: GAD.
- Harkness, S. and J. Waldfogel (1999) *The Family Gap in Pay: Evidence from Seven Industrialised Countries*, CASEpaper 29. London: Centre for Analysis of Social Exclusion.
- Hills, J. (1995) The welfare state and redistribution between generations, in J. Falkingham and J. Hills (eds), *The Dynamic of Welfare. Social policy and the life cycle*. Hemel Hempstead: Harvester Wheatsheaf.
- Himmelweit, S. (1998) 'Accounting for caring', *Radical Statistics* No. 70: 1-8, Winter, London: Radical Statistics Group.
- Himmelweit, S. (1998) 'Accounting for caring', *Radical Statistics* No. 70: 1-8, Winter, London: Radical Statistics Group.

Hyde, M., Dixon, J. and Drover, G. (2003) 'Welfare retrenchment or collective responsibility? The privatisation of public pensions in western Europe', *Social Policy and Society* 2(3): 189-97.

Jepsen, M. and Meulders, D. (2002) 'The individualisation of rights in social protection systems', chapter 3 in H. Sarfati and G. Bonoli (eds) *Labour Markets and Social Protection Reforms in International Perspective*, Aldershot: Ashgate.

Johnson, P., Conrad, C. and Thomson, D. (eds) (1989) *Workers versus Pensioners: Intergenerational conflict in an ageing world*. Manchester: Manchester University Press.

Kotlikoff, L. (1992) *Generational Accounting: Knowing who pays, and when, for what we spend*. New York: Free Press.

Kune, J. (2003) *On Global Aging. Old age income systems in the EU and other major parts of the world*, The Hague: Physica-Verlag.

Leitner, S. (2001) "Sex and gender discrimination within EU pension systems", *Journal of European Social Policy*, 11(2): 99-115.

Lewis, J. (1992) Gender and the development of welfare regimes, *Journal of European Social Policy*, 2(3): 31-48.

Lloyd-Sherlock, P. and Johnson, P. (eds) (1996) *Ageing and Social Policy. Global comparisons*, London: STICERD.

Longman, P. (1987) *Born to Pay: The New Politics of Aging in America*. Boston: Houghton Mifflin Company.

Luckhaus, L. and Moffat, G. (1996) *Serving the Market or People's Needs. The impact of European Union law on pensions in the UK*, Warwick: Warwick University.

Luckhaus, L. (1997) Equal pension rights for men and women: a realistic perspective, *Journal of European Social Policy*, August.

Mabbett, D. (1997) *Pension Funding: Economic imperative or political strategy*, Discussion Paper 97/1. Uxbridge: Brunel University.

Makinen, T. (2002) 'Public or private? International comparison of the structure and level of pension income', paper presented to ISA XV World Congress of Sociology, Brisbane July 7-13.

Merrill Lynch (2000) *Demographics and the Funded Pension System*, London: Merrill Lynch).

Minns, R. (2001) *The Cold War in Welfare: Stock markets versus pensions*, London: Verso.

- Morgan, E. (1984) *Choice in Pensions: the Political Economy of Saving for Retirement*. London: Institute for Economic Affairs.
- Mullan, P. (2000) *The Imaginary Time Bomb: Why an ageing population is not a social problem*. London: I.B. Tauris.
- Myles, J. (2003) 'What justice requires: Pension reform in ageing societies', *Journal of European Social Policy*, 13(3): 264-9.
- Myles, J. and Street, D. (1995) Should the economic life course be redesigned? Old age security in a time of transition, *Canadian Journal on Aging*, 14(2): 335-359.
- OECD (2001) *Employment Outlook*. Paris: OECD.
- OECD (2002) *Employment Outlook*. Paris: OECD.
- ONS (1999) *Population Trends 98*, Winter, London: the Stationery Office.
- ONS (2001) *Living in Britain. Results from the 2000 General Household Survey*, London: The Stationery Office and <http://www.statistics.gov.uk/>
- ONS (2002) *Living in Britain. Results from the 2001 General Household Survey*, London: The Stationery Office and <http://www.statistics.gov.uk/>
- Pensions Policy Institute (2004) *The Underpensioned*, London: PPI.
- Reich, R. (1997) *Financial Times*, 3 March, cited in Buti, M., Franco, D. and Pench, L. (1999) Reconciling the welfare state with sound public finances and high employment, chapter 1 in M. Buti, D. Franco and L. Pench (eds) *The Welfare State in Europe. Challenges and reforms*, Cheltenham: Edward Elgar..
- Rein, M. and Schmahl, W. (2004) *Rethinking the Welfare State. The political economy of pension reform*, Cheltenham: Edward Elgar.
- Sarfati, H. (2002) 'Labour market and social protection policies: Linkages and interactions', chapter 1 in H. Sarfati and G. Bonoli (eds), *Labour Market and Social Protection Reforms in International Perspective*, Aldershot: Ashgate.
- Sen, A. (1984) *Rights and Capabilities in Resources, Values and Development*, Oxford: Blackwell.
- Schokkaert, E. and van Parijs, P. (2003) 'Social justice and the reform of Europe's pension system', *Journal of European Social Policy*, 13(3): 245-63.
- Sinfield, A. (2002) 'The cost and unfairness of pension tax incentives', Memorandum PEN 61, House of Commons Work and Pensions Committee, The Future of UK Pensions, First Report of Session 2002-2003, volume III, HC 92-III, pp. 300-5.
- Sinn, H-W. (2000) 'Why a funded pension system is useful and why it is not useful' *International Tax and Public Finance*, 7 (4/5): 383-410.

Sohrab, J. (1994) 'An overview of the Equality Directive on social security and its implementation in four social security systems', *Journal of European Social Security* 4(4): 163-27.

Street, D. and Ginn, J. (2001) 'The demographic debate: the gendered political economy of pensions', chapter 3 in J. Ginn, D. Street and S. Arber (eds) *Women, Work and Pensions: International issues and prospects*, Buckingham: Open University Press.

Street, D. and Quadagno, J. (1993) The state, the elderly, and the intergenerational contract: Toward a new political economy of aging, in K.W. Schaie and W.A. Achenbaum (eds) *Societal Impact on Aging: Historical perspectives*. New York: Springer.

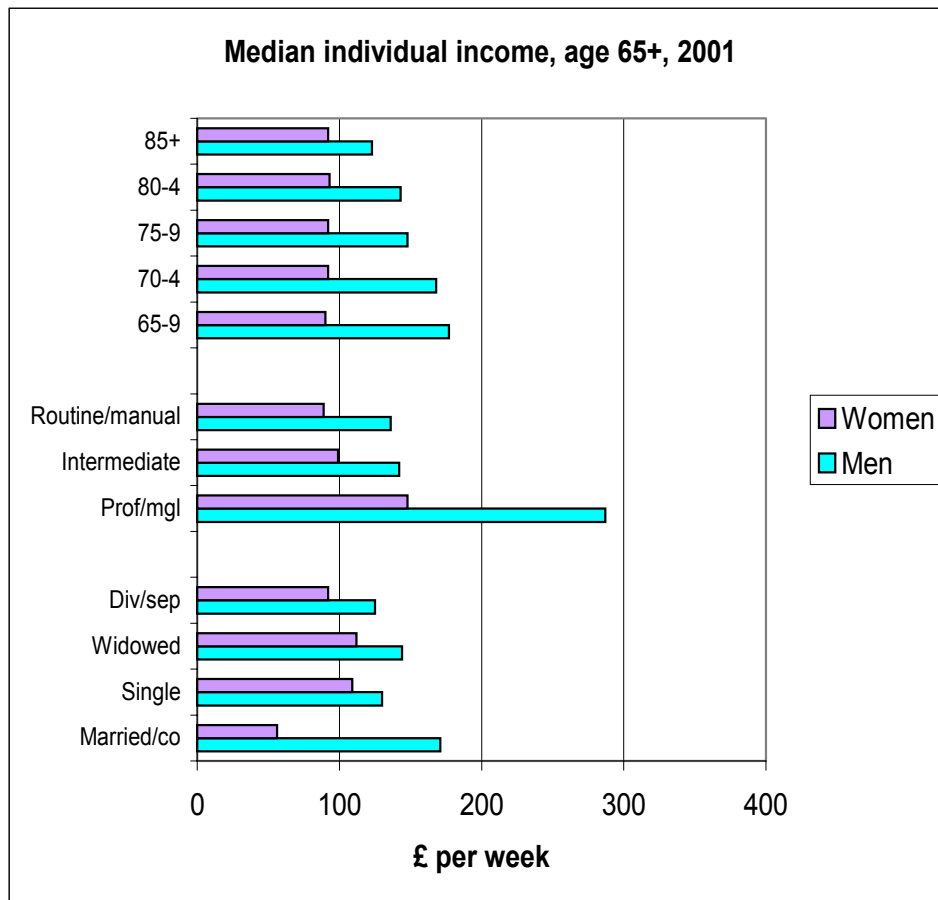
Taylor, P. (2002) *New Policies for Older Workers*, Bristol: Policy Press.

Walker, A. and Maltby, T. (1997) *Ageing Europe*, Buckingham: Open University Press.

Waring, M. (1988) *Counting for Nothing: What men value and what women are worth*. Wellington: Allen and Unwin.

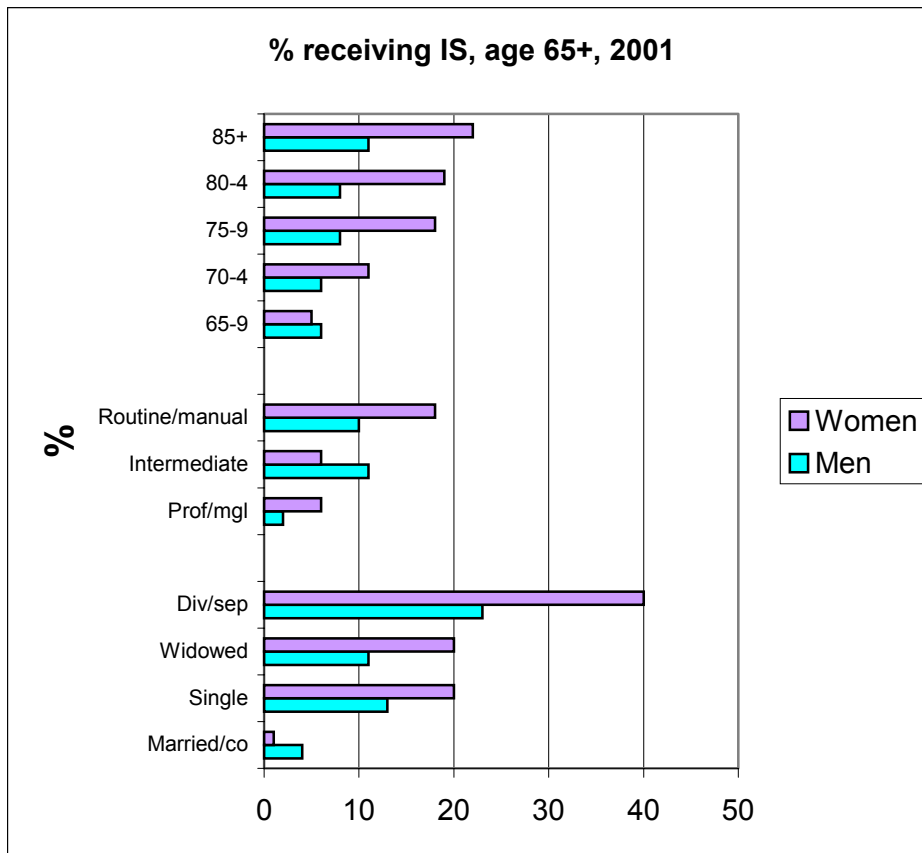
World Bank (1994) *Averting the Old Age Crisis*, New York: Oxford University Press.

**Figure 1 Median individual income of women and men aged 65+, Britain 2001**



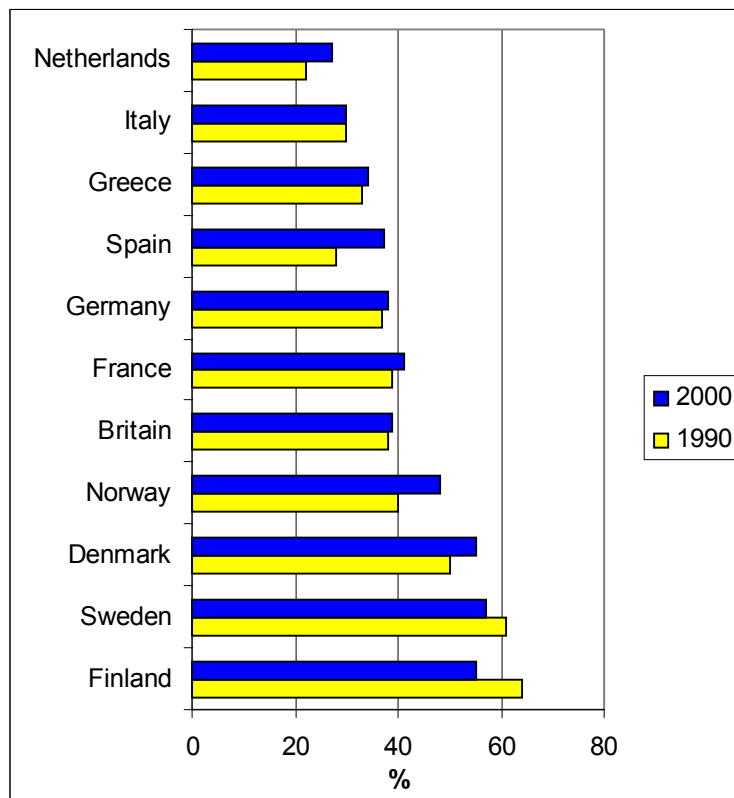
Source: Arber and Ginn 2004, using General Household Survey data

**Figure 2 Percentage of women and men 65+ receiving Income Support. 2001, Britain**



Source: Arber and Ginn 2004, using General Household Survey data

**Figure 3 Percentage employed full time, 1990 and 2000. Women aged 15-64**



Source: Calculated from OECD (2001) Tables A and E

**Table 1 Gender gap in pension income, six OECD countries, mid-1990s.  
Non-married women and men aged 70+**

	Women's average pension as % of men's		
	Public	Private	Total
Britain	92	40	69
US	90	54	78
Germany	77	74	77
France	~	~	74
Finland	~	~	75
Sweden	75	62	73
Denmark	100	91	99

Notes:

National currencies were converted to Finnish marks for comparison among countries

Britain - State Earnings Related Pension Scheme (SERPS) included with 'private'

US - Supplemental Security Income (SSI) included with 'public'

Germany - Public officials' pensions included as 'public'

~ data not available

Source: Calculated from Makinen (2002), Figure 4.2

**Table 2**

**Percentage employed, men and women aged 25 – 54 by maternal status  
of women, 8 OECD countries, 2000**

	Men	% employed		% employed part-time	
		Women		Women	
		No child	2+ children	No child	2+ children
Sweden	86	82	82	15	22
Finland	85	79	74	8	14
France	87	74	59	20	32
Germany	87	77	56	54	60
Netherlands	92	75	63	38	83
UK	88	80	62	24	63
US	89	79	65	10	24
Spain	85	55	43	14	19
Italy	85	53	42	20	34
OECD (28)	88	74	62	19	37

Source: calculated from OECD 2002 *Employment Outlook*, Table 2.4

**Table 3: Allowances for childcare or eldercare in state pension schemes**

<b>a) Flat rate schemes</b>	
Britain	Home Responsibilities Protection for those with children up to 16 (or 18 in full time education) and for those providing substantial care for adults
Ireland	Homemakers Scheme as above
Denmark	Residence-based citizens pension
Netherlands	Residence-based citizens pension
<b>b) Earnings related schemes – carer credits</b>	
Finland	Coverage for recipients of home care allowance
Sweden	4 years coverage for each child
Austria	4 years coverage for each child
Germany	3 years coverage for each child, based on national average earnings; informal carers covered, benefit depending on hours of care provided
France	2 years coverage for each child; bonus for mothers of 3 children
Belgium	2 years coverage for each child, based on individual's last wage
Portugal	2 years coverage for each child
Luxembourg	2 years coverage for each child
Spain	1 year coverage for each child
Italy	6 months coverage for each child; 1 month/year coverage for informal carers
Greece	3-6 months coverage for each child
Denmark (ATP)	None, but pension related to hours not earnings
Britain (SERPS, 1978-2001) (S2P, replacing SERPS)	None State Second Pension, from 2001, includes coverage until the youngest child is aged 6

Source: Adapted from Leitner 2001, Tables 4 and 5.

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