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Europe: Is There an Aging Crisis or is it a Public Pension Problem?

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Europe: Is There an Ageing Crisis or is it a Public Pension Problem?

Richard Disney *

Talk of an ageing ‘crisis’ or a ‘demographic timebomb’ in Europe is of course overblown; but such rhetoric sells books and attracts media attention.1 If households have sufficient foresight, and can choose when to retire and how much to save, they should be able to offset greater longevity and falling birth rates in the aggregate. True, households may be myopic, but the heightened concern as to ‘ageing’ may bring home the necessity for making life cycle provision. It is also true that perverse incentives may encourage individuals to retire early or to save less, driving a wedge between private and social optima. In principle, tax and benefit policies can be adjusted to deal with this issue.

The ageing of European Union countries (see Chart 1) has, however, highlighted the underlying difficulties in financing major components of public spending – such as social security (pension) programmes and health care expenditure – while simultaneously achieving the targets of macroeconomic stabilization laid out initially at Maastricht and subsequently in the Amsterdam Treaty. The ageing ‘problem’ in Europe arises from the difficulty in reconciling the freedom of individual countries to develop their own social welfare policies with the requirements of economic cohesion arising from the Single European Market and economic and monetary union.

Public pension spending and EU macroeconomic stability

High social security spending, in particular, is seen as a threat to EU macroeconomic targets for several reasons:

• If these expenditures are not covered by tax receipts, then EU countries will have difficulties in remaining within the ceiling for annual borrowing as a % of GDP, and the inflation target.
• Insofar as unfunded social insurance programmes give individuals ‘rights’ or entitlements that are a claim on future tax receipts, they represent future implicit debt analogous to...

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1 Disney (1996) tried to deflate this idea.
Overt borrowing by governments. Even if such debts are not recognized in the EU debt/GDP ceiling, they are increasingly so recognized by financial markets. Moreover, as governments move towards an accrual basis for their accounting in GFS, rather than a cash basis, accrued liabilities of this type should be incorporated into their balance sheets. The Table, compiled in Disney (2001), provides some estimates for OECD countries of these cumulated accrued liabilities - that is the obligations of these social security programmes to existing pensioners and workers in the hypothetical event that such schemes were closed down tomorrow. These cumulated liabilities, or implicit pension debt, differ from the more commonly provided projected liabilities, which assume that the scheme remains in operation - but projected liabilities can be altered by changes in policy without any need to reform retrospectively. The debts, as a % of GDP, are substantial, and dwarf the explicit debt measure (in the final column) that is subject to a 60% ceiling in the Stability Pact. A major caveat is that such measures are very sensitive to the assumptions made as to earnings profiles, productivity growth etc.²

² For evidence, see Banks, Disney and Smith (2000). The issue of data requirements is discussed more fully in Boeri and Brugiavini (2001).

### Measures of accrued public pension rights as % of GDP, OECD, 1990

<table>
<thead>
<tr>
<th>Country</th>
<th>Total</th>
<th>Present retired</th>
<th>Present workforce</th>
<th>Existing assets</th>
<th>Total</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>105</td>
<td>42</td>
<td>71</td>
<td>8</td>
<td>75</td>
<td>136</td>
</tr>
<tr>
<td>Canada</td>
<td>216</td>
<td>77</td>
<td>139</td>
<td>-</td>
<td>87</td>
<td>69</td>
</tr>
<tr>
<td>Germany</td>
<td>157</td>
<td>55</td>
<td>102</td>
<td>-</td>
<td>138</td>
<td>50</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>185</td>
<td>114</td>
</tr>
<tr>
<td>Ireland</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>55</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>259</td>
<td>94</td>
<td>165</td>
<td>-</td>
<td>157</td>
<td>129</td>
</tr>
<tr>
<td>Japan</td>
<td>145</td>
<td>51</td>
<td>112</td>
<td>18</td>
<td>156</td>
<td>-</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>103</td>
<td>79</td>
</tr>
<tr>
<td>Netherlands</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>93</td>
<td>71</td>
</tr>
<tr>
<td>Portugal</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>93</td>
<td>63</td>
</tr>
<tr>
<td>Spain</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>89</td>
<td>46</td>
</tr>
<tr>
<td>UK</td>
<td>139</td>
<td>58</td>
<td>81</td>
<td>-</td>
<td>68</td>
<td>46</td>
</tr>
<tr>
<td>US</td>
<td>89</td>
<td>42</td>
<td>70</td>
<td>23</td>
<td>-</td>
<td>69</td>
</tr>
</tbody>
</table>

**Notes:**

1) Accrued liabilities constitute the sum of obligations to current pensioners and accrued-to-present rights of workers, less pension scheme assets if any. Thus, in the US calculations, for example, the discounted social security rights of pensioners equal 42% of GDP, and the rights so far accrued of those still in the labour force, 70% of GDP. But the Social Security Trust Fund holds assets equal to 23% of GDP, leaving a net accrued liability of 89% of GDP. Total explicit and implicit debt is therefore 69 + 89 = 158% of GDP.

2) The OECD study discounts accrued rights at 4%, falling to 3% after 2050. It assumes benefits are accrued in line with earnings growth but are price indexed after retirement (in this simulation). Various additional financial obligations (for example, unfunded supplementary schemes for public sector workers) are ignored.

3) The study by Kune assumes 4% discount rates, ignores all complementary schemes (e.g. French supplementary schemes, Spanish and Portugese schemes for public workers) and takes no account of longevity improvements. The maturation of the State Earnings Related Scheme (SERPS) in the UK is ignored.

4) Each study relies of simulation models from published data, coupled with projections of economic assumptions, rather than actual administrative microdata, to calculate liabilities.
If social security spending is financed from hypothecated taxes on payroll, as is typically the case, it is commonly argued that such taxes impose a constraint on employment. This constraint runs counter to the EU’s agreed strategy to boost employment. There is indeed a potential ‘vicious’ circle here: high taxes on labour reduce employment and thereby raise the dependency ratio, so reducing the scope for the very employment growth that could offset the burden of increasing numbers of aged non-participants.

The ‘modernisation of social security’ in the European Union

These pressures have led to a ‘sea change’ in the attitude of the European Union to social provision (Szyzzczak, 2001). Whilst the form of social security provision of member states lies outside EU competence, the potential impacts on macroeconomic sustainability and on the EU’s employment strategy of what may be perceived as ‘unsustainable’ levels of spending on social welfare benefits are now seen to lie directly within its remit. What is now termed the ‘modernisation of social security’ is firmly on the EU agenda.

Accordingly, new forms of ‘soft law’ are used to encourage, and even coerce, member states into line. As part of the Lisbon Process, member states are subject to benchmarking and peer review in a variety of fields concerned with employment and welfare provision. They are set targets for employment strategy, and required to provide data on, for example, projected pension expenditures on a common set of assumptions rather than their own ad hoc estimates (Commission of the European Communities, 2001). The issue of whether the single internal market is compatible with regulation and limitations of competition in the field of provision of welfare benefits has been tested in the European Court of Justice.

Social security reform in individual European countries

Whether independently, or as a result of this concerted pressure, many EU countries have begun to reform their social security programmes (OECD, 1998). Some illustrations are contained in the Box. A common approach is a ‘parametric’ reform process (the terminology is from Chand and Jaeger, 1996; see also Disney, 2000) raising the retirement age and reducing the generosity of indexation of pensions in payment. In addition, several countries have attempted to develop or expand the funded component of their programmes. Two countries (Sweden, and Italy in the 1995 ‘Dini’ reform) have attempted to link future individual pension benefits much more closely to individual contributions and to macroeconomic criteria of sustainability. This last strategy, proponents argue, both addresses the problem of macroeconomic sustainability and also makes contributors willing to pay for pensions, since future pensions are more closely tied to individual contributions. It is designed explicitly to limit intergenerational redistribution arising from the ‘pension promise’, but thereby sacrifices any scope for intragenerational redistribution, such as transfers to non-contributors and to those with low lifetime earnings.

The role of funded pensions

A central issue in the European debate is as to whether social security programmes should con-

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### Some Recent Pension Reforms in Europe

<table>
<thead>
<tr>
<th>Country</th>
<th>Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td>France, Ireland</td>
<td>Establishment of pre-funded component to social security programme</td>
</tr>
<tr>
<td>Germany</td>
<td>Development of second tier of funded pensions</td>
</tr>
<tr>
<td>Italy</td>
<td>‘Parametric’ reform (‘A mato’) raising retirement age and cutting benefits</td>
</tr>
<tr>
<td></td>
<td>Shift to ‘actuarially fair’ benefits based on contributions (‘Dini’). A attempts to develop second tier of funded pensions from existing TMR funds</td>
</tr>
<tr>
<td>Sweden</td>
<td>Shift to Notional Defined Contributions (unfunded individual pension credits) and development of small funded component</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Cutbacks in second tier public provision; greater incentives for private provision; raising pensionable age for women</td>
</tr>
</tbody>
</table>

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3 The issue is discussed extensively in OECD (1995) and Nickell and Layard (1999). See also Alesina and Perotti (1997) and Daveri and Tabellini (2000).
Moving to a (partially) funded scheme involves high costs

Incentives to retire

The concern as to ‘ageing’ arose in part from the possibility that household choices, particularly concerning the retirement decision, are distorted by tax policy. An influential cross-country study edited by Gruber and Wise (1999) shows that there is a positive correlation between the average implicit tax rate on retirement and the degree of early retirement, across countries. The focus here, correctly, is on the impact of marginal tax rates, rather than the average tax burden, on household behaviour.

Care must be taken in this type of analysis, however. First (and Gruber and Wise are careful in this respect), changes in economic behaviour in response to tax changes or other policies (for example, raising retirement age) must be modeled, not assumed. For example, raising state retirement age by five years will not lead everybody to work five years longer – many individuals find other avenues into retirement if there are incentives to do so. Nevertheless, there appears to be cross-country time-series evidence of participation rates responding to changes in retirement ages (Johnson, 2000). Second, there must be explicit high marginal tax rates to induce changes in behaviour. If, for example, receipt of a public pension is not conditioned on a ‘retirement test’ or ‘earnings test’, and deferral of benefits is available at an actuarially fair rate, there is no reason why households cannot work indefinitely, whatever the ‘implicit’ marginal tax rate on continued work. Only now are we seeing enough ‘natural experiments’ in terms of changes in these tests to permit us to evaluate the impact of explicit taxes on the work incentives of the elderly (Baker and Benjamin, 1999; Disney and Smith, 2002). These suggest positive and significant, but fairly small, impacts of taxes on retirement behaviour.

The Accession states

Enlargement of the European Union will bring with it a host of new opportunities and issues. In

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8 The exception being policies that reduce the generosity of indexation of pension benefits post-retirement.

9 The clearest example is in private pension schemes, as in the Netherlands and the UK, which permit early drawing of the pension under certain circumstances. But these rarely preclude the individual from getting another job and not ‘retiring’ from the workforce if they so choose. Conversely, disability programmes (also prevalent in both those countries) generally impose a work test and therefore will have a substantive impact on participation.

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Tain a funded (possibly private) element. Economists have argued excessively as to whether funded and unfunded pension schemes involve different social obligations. Under certain assumptions, there are ‘equivalence conditions’ by which the total burden on society of running a funded pension programme is identical to that of an unfunded programme (see Bohn, 1997). Even if the steady state outcomes are different – for example, if the funded scheme generates a larger capital stock and, therefore, GDP per capita – the net effects on contribution rates in steady state may be rather small.

This issue is however peripheral to the current European-level debate, since it is the link between macroeconomic sustainability and public spending on social security programmes that is the issue here, particularly as there is some tentative evidence that individuals might prefer to save for retirement through a funded scheme, rather than to rely on the government’s future taxable capacity (Boeri, Börsch-Supan and Tabellini, 2001). Where the social cost issue ‘bites’ is during the transition from a fully funded to a partially funded scheme. If existing, accrued, liabilities are not to be reduced (and governments have been very reluctant to cut pensions retrospectively)\(^6\), then the introduction of a funded component requires higher contribution rates. With high payroll taxes already, this is unattractive. European governments are attempting to finesse this problem by finding other ‘funds’ that can be converted into embryonic funded pension programmes, such as the severance payment funds (TFRs) in Italy.

Moreover, private funded programmes can only survive with sizeable tax privileges relative to other forms of saving, which impose an indirect revenue burden on government. Getting the degree of effective subsidy to private programmes right is tricky – a lesson that countries with funded sectors have learnt to their cost, such as New Zealand and the United Kingdom.\(^7\)
Focus

Impact of parametric reforms remains to be seen

Demographic ageing should not be an issue in theory, so long as the household can forecast expected longevity and can utilise the labour market and the capital market to smooth consumption. The problem that arises in a European context is explicitly a problem of public social welfare spending, where macroeconomic and employment targets limit the scope of individual countries to pursue their own, autonomous policies. EU governments are under increasing pressure to reform their public pension programmes so as to reduce current payroll tax rates and prospective pension liabilities.

Many EU governments have begun to implement ‘parametric’ reforms of their pension programmes, such as changes in retirement age, in the generosity of benefits, and in explicit taxes on work on elderly workers, in response to these spending constraints. Economists are just beginning to provide concrete evidence on the behavioural impacts of these policies. Another favoured strategy has been to institute a pre-funded component to pension programmes. Notwithstanding the extensive debate among economists as to the rationale for such a transition, the essential limitation on governments of EU member states lies in finding institutional arrangements that facilitate such a transition at minimal cost to existing taxpayers.

References


Focus


World Bank: www.worldbank.org/pensions