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STRENGTHENING GROWTH AND PUBLIC FINANCES IN AN ERA OF DEMOGRAPHIC CHANGE

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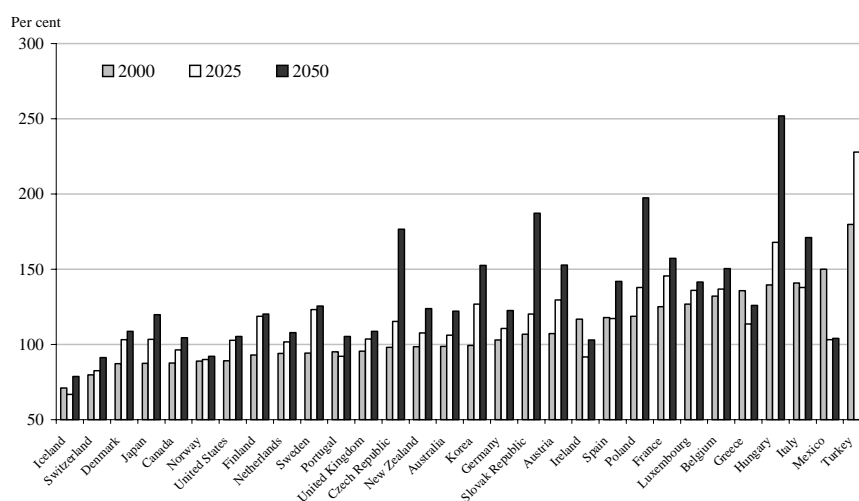
***Ageing will affect all
OECD countries ...***

1. Population ageing¹ is set to affect all OECD countries -- albeit with variations in timing and intensity. Many non-OECD countries, not least China, will experience the same trend. Insofar as ageing reflects people living longer and healthier lives it is a very positive development. And, indeed, increasing longevity is the driving force behind ageing: since the middle of the 19th century, life expectancy at birth has steadily risen at a pace of 2½ years per decade with no indication of slowing down. But ageing is compounded by recent developments: many countries experienced a boom in birth rates after World War II followed, particularly in European countries, by a collapse to below replacement levels. As a result of this development a very large population cohort is about to pass into retirement while cohorts that enter labour markets are relatively small.

***... with negative impacts
on growth and public
budgets***

2. Ageing negatively affects the outlook for both growth and public finances. Under the assumption of no changes in the policies that affect labour force participation, but taking into account that successive cohorts of women will have higher participation rates in countries where these are currently low, labour supply in the average OECD country may increase by some 5 per cent over the period 2000-2025 but could then decline by some 9 per cent until 2050.² Overall dependency is set to rise everywhere as the number of people outside the labour force would outpace those within (Figure 1). The most severely afflicted economies would be those of transition countries, where labour force declines over the period 2025-2050 could be of the order of 30 per cent. On the demographic assumptions used, overall populations could decline in about half of OECD countries between 2025-2050. Nonetheless, outright declines in GDP seem unlikely³ and, more importantly from a welfare perspective, GDP per capita can keep rising at sustained rates, provided appropriate policies are put in place to deal with the fiscal and economic consequences of ageing.

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1. "Ageing" in this note focuses in particular on the age structure of population and is typically used here to refer to changes in old-age dependency ratios.
 2. Calculations are based on a combination of national, Eurostat and UN demographic projections. The impacts of recent policy changes and of cohort effects on female participation are modelled as described in J.-M. Burniaux, R Duval and F. Jaumotte, "Coping with Ageing: A Dynamic Approach to Quantify the Impact of Alternative Policy Options on Future Labour Supply in OECD Countries", *OECD Economics Department Working Papers*, No. 371, 2003.
 3. Labour productivity growth as low as 1 per cent per year would be sufficient to avoid such an outcome.

Figure 1. Projected overall dependency ratios¹

1. Total inactive population relative to total labour force (15 years and over).

OECD projections based on unchanged policies and a combination of national, Eurostat and UN demographic projections. Countries have been ranked from left to right based on the dependency rate in 2000.

Source: J.-M. Burniaux, R. Duval and F. Jaumotte, "Coping with ageing: a dynamic approach to quantify the impact of alternative policy options on future labour supply in OECD countries", OECD Economics Department Working Papers, No. 371, 2003.

***Resources have to flow
from those at work to the
old***

3. The mechanisms for transferring resources from those at work to those without differ across countries. The role of intra-family transfers is significant in some countries and private pension schemes are important in a number of countries. But in most countries, particularly in Europe, public provision of old-age pensions as well as of other transfers and services to those outside the workforce plays a lead role. As a result, in the absence of (further) reform public expenditure under these headings can be expected to rise significantly. Projections coordinated by the OECD and made under fairly conservative assumptions concerning demographic change suggest that in the average OECD country, spending on old-age pensions, various transfers to retired people below pension age, and on health could increase by some 6-7 per cent as a share of GDP over the period to 2050 (Figure 2).⁴ Drastic tax increases necessary to pay for such expenditure hikes could make matters worse by reducing the incentives for market work and for saving.

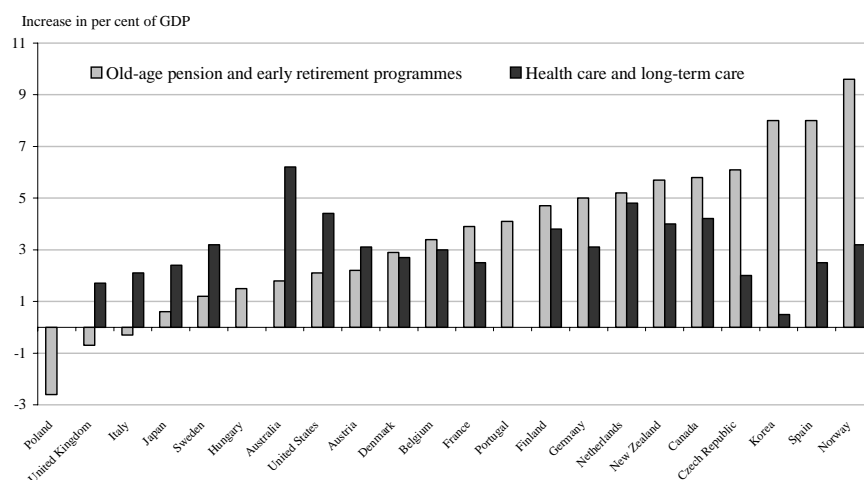
***Technological progress is
good for growth but less
so for budgets ...***

4. There are no easy options for dealing with ageing. Faster technological progress is sometimes seen as the answer and will certainly boost growth and income which is desirable. But it is not something that can be mandated. Governments will have to work on establishing the right policy framework to stimulate technological progress, recognising that while its links to R&D are well established, not least in the OECD Growth Study, the links from policy to R&D are complicated and run through multiple channels. But even if governments prove successful in boosting

4. See "Fiscal implications of ageing: projections of age-related spending" in OECD, *Economic Outlook*, 69, 2001.

technological progress, this may not solve the effect of ageing on public budgets. The gains from technological progress accrue through higher real wages and those who produce services for the old will share in those real wage gains. Moreover, pensions and transfers are usually linked, explicitly or implicitly, to standards of living.⁵ Hence, the **share** of output and aggregate income that goes towards paying for the old is unlikely to be much affected. There will be some gains for public budgets, however. For example, if real interest rates on the public debt do not rise in line with higher productivity growth debt service will become cheaper.

Figure 2. Projected effects of ageing on public spending, 2000-2050¹



1. The projections of public spending implications of ageing were undertaken in 2000-2001. A new set of projections is currently being planned in collaboration between Member governments, the European Commission and the OECD Secretariat. For Austria, France, Germany, Italy and Spain projections concerning health care spending were not part of the original projection but have been elaborated subsequently based on the same macroeconomic assumptions. Countries have been ranked from left to right based on the projected expenditure increases in old-age pension and early retirement programmes. Source: T.-T. Dang, P. Antolin and H. Oxley, "Fiscal implications of ageing: projections of age-related spending", OECD Economics Department Working Papers, No 305, 2001.

... while immigration can provide at most temporary budget relief

5. Immigration is also sometimes seen as an answer to population ageing. And, indeed, well educated young migrants without dependents who immediately enter the workforce of the host country are likely to provide a net positive contribution to public finances and growth. But in practice it is difficult to select immigrants so tightly. And tightly selected immigrants may seek re-unification with their families that may impose a larger burden on public spending. In any case, both they and their family eventually grow old and acquire rights to pensions and health services.⁶ Furthermore, some countries with a compressed wage structure and generous social transfers find that low-skilled immigrants are hard to

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5. The initial pension of a retiree is usually linked to wages but the pension may subsequently be indexed to prices or a weighted average of wages and prices. In this case, faster productivity and wage growth will reduce the ratio between the average pension being paid and the average wage and therefore to some extent reduce the share of pensions in GDP.
 6. Even immigrants who return to their countries of origin acquire rights that they will exercise on the public finances of the host country.

integrate in the labour market and correspondingly costly to public budgets. For these reasons, immigration is unlikely to provide a long-term boost to public finances though there may be a temporary positive effect as long as immigrants are active in the labour market. But for such an effect to be significant, the policy framework would need to ensure that immigrants are well integrated and the scale of immigration would have to be substantial. Currently, net migration flows are fairly small in most OECD countries, with annual net inflows at around or above ½ per cent of the population on a sustained basis in only Canada and Australia while net outflows of that magnitude occur only in Mexico. While these considerations suggest that immigration could be at most part of the response to the public finance implications of ageing, it could still have substantial positive economic effects, as reflected in higher growth. These effects, however, are likely to accrue to a large extent to the immigrants themselves. Nonetheless, there may also be gains to the host country from increasing population diversity.

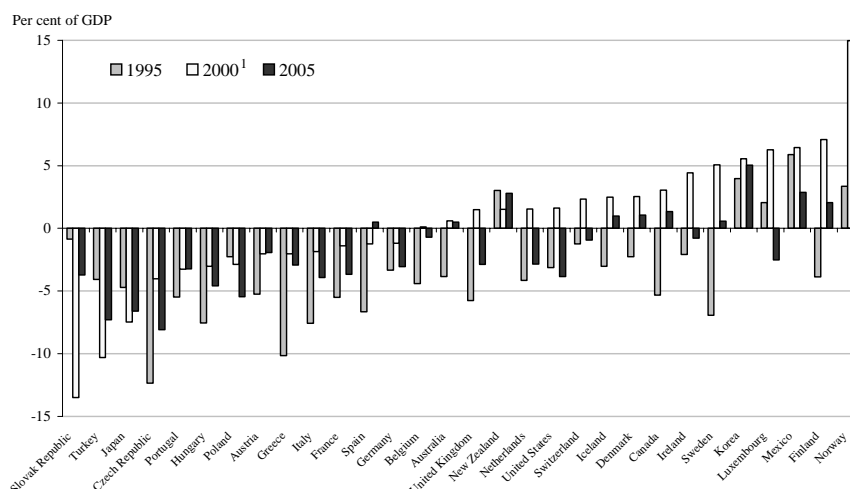
Fertility is also not the answer and is difficult to influence ...

6. An increased population of working age could also be the eventual result of higher fertility. However, the links between policy and fertility are very tenuous at best so higher fertility is not something that can be easily achieved through policy reform. Furthermore, a rise in the number of children could entail lower female labour force participation unless institutions are in place that allow the reconciliation of work and family obligations. And the short-run impact of higher fertility would of course be to raise, rather than to lower, the overall dependency ratio. In the long run, increased fertility would boost not just the young and working-age populations but also the number of older persons.

... whereas debt reduction to prepare for ageing requires discipline

7. A fourth approach to deal with the public budget implications of ageing is to run public sector surpluses so as to reduce public debt. The corresponding drop in debt interest payments will then create “space” in public budgets for higher age-related spending. Between the mid-1990s and 2000, government net lending in the OECD moved from a deficit corresponding to 4 per cent of GDP to broad balance and government debt began to decline (Figure 3). However, it is likely that only about half of the deficit decline was due to underlying improvements with the other half being cyclical or reflecting tax revenues associated with the asset-price bubble. Since then, the combination of economic downturn, the bursting of the asset-price bubble and fiscal expansion has led to a reversal of the previous improvement, with the OECD-wide government deficit back at around 4 per cent of GDP and debt expanding again. While a number of mostly smaller countries have been able to maintain budgetary stances consistent with a continued decline in debt, this has clearly not been the case in the six largest OECD economies. This experience, where many governments were unable or unwilling to sustain debt reductions to prepare for ageing, underlines the demands for policy discipline posed by such a strategy.

Figure 3. General government budget balances



1. Excluding one-off revenues from the sale of mobile telephone licenses for Australia, Austria, Germany, Italy, Netherlands, Portugal, Spain and the United Kingdom.

Countries have been ranked from left to right based on the budget balance in 2000.

Source: OECD Economic Outlook, No. 75, 2004.

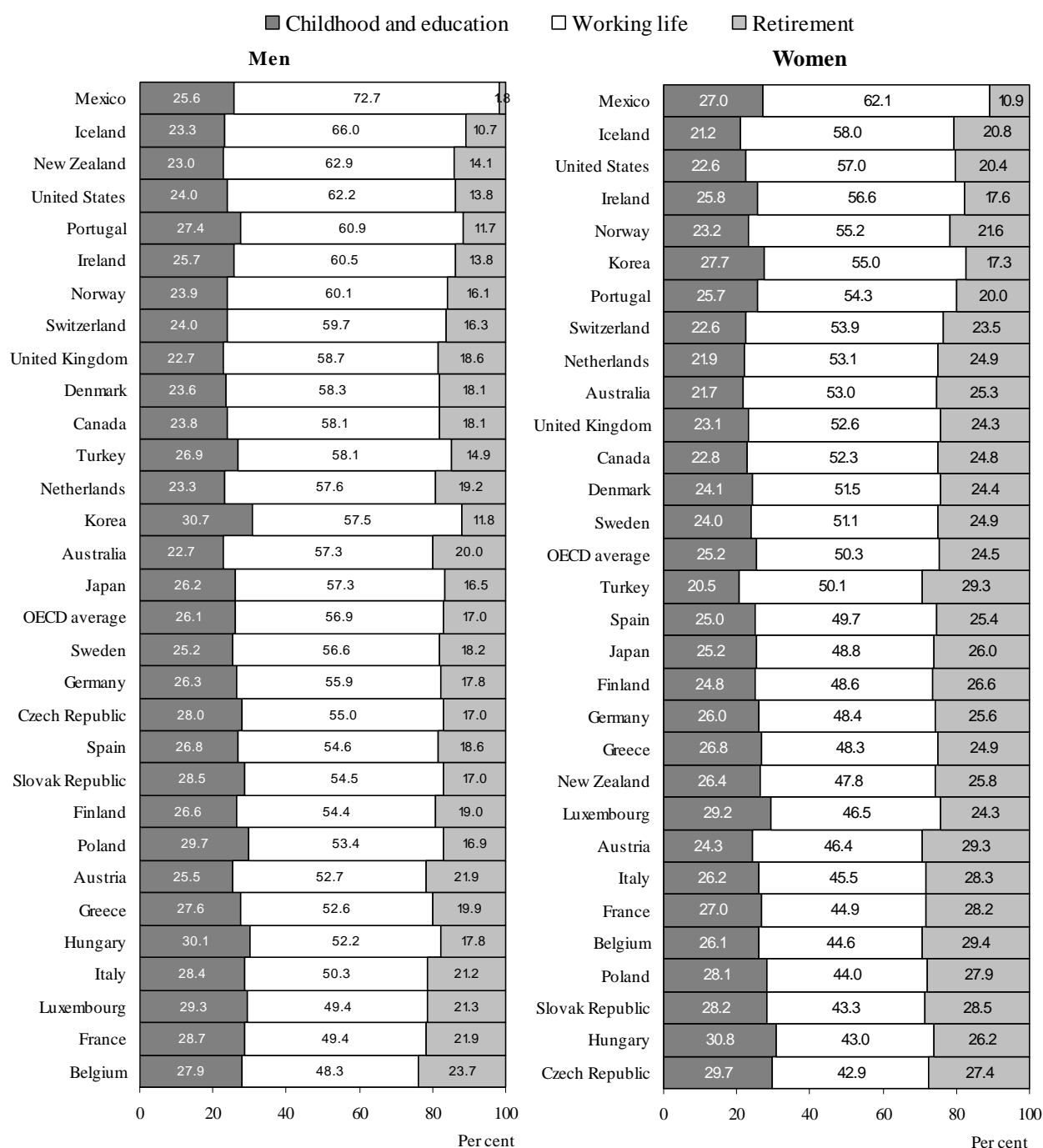
People spend less of their lifetime at work

8. The necessary resource transfer from those at work to those no longer working obviously depends on the ages at which people enter the labour force and permanently retire. Over the past three to four decades, people have tended to enter the workforce at a higher age while retiring at an earlier age -- even if the trend towards ever earlier retirement appeared to come to a halt in the 1990s. The strength of these trends has differed across countries as has the increase in longevity, and people now spend widely different shares of their lifetimes in the labour force (Figure 4).⁷ With increasing longevity and no change in retirement ages, the proportion of life spent working will continue to decline, pointing to the crucial role that changing retirement behaviour will have to play in adapting to ageing.

Policy reform could make people retire later ...

9. Average effective retirement ages differ significantly across countries, for males ranging from below 55 in Hungary and Turkey to above 65 in Japan, Iceland and Mexico. These large differences mainly reflect differences in the incentives that policy gives to people to stay in the labour force -- or to withdraw from it -- as they grow older. These incentives arise not only from public pension systems but also from the possibility of accessing early pathways into retirement through, for example, disability benefits, unemployment benefits or dedicated early retirement schemes. The financial incentives to retire can be summarised in a measure of the implicit tax in terms of foregone pensions and transfers that people pay on their income from working an additional year. Estimates

7. The figure abstracts from temporary periods out of the labour force such as, for example, in the context of child rearing and shows the average distribution of lifetime for those who at some stage are in the labour force, *i.e.* it does not take into account those people who have never entered the labour market. See Burniaux *et al.*, *op.cit.*

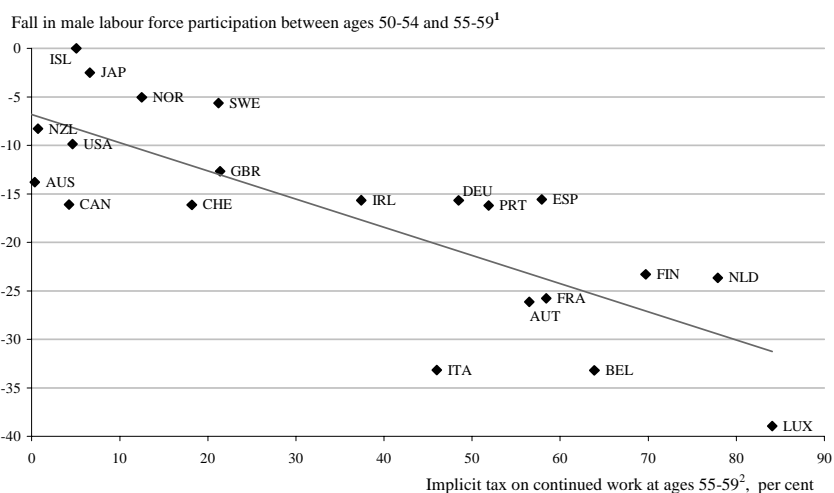
Figure 4. Lifetime allocation of work and non-work across OECD countries, 2000¹

1. Based on average ages of entry and exit to/from the labour market calculated for 2000 as described in the source and life expectancy at birth from United Nations, World Population Prospects: the 2000 revision.

Source: J.-M. Burniaux, R. Duval and F. Jaumotte, "Coping with ageing: a dynamic approach to quantify the impact of alternative policy options on future labour supply in OECD countries", OECD Economics Department Working Papers, No. 371, 2003.

of the implicit tax vary widely across countries, being very high in some European countries even for people in their mid-50s, and their magnitude appears to be reflected in retirement behaviour (Figure 5).⁸ While a number of reforms have been undertaken to reduce the incentives to retire early, the systems are a long way from providing neutral incentives to retire. Hence, early pathways into retirement will have to undergo further reform, eliminating access for people without special needs, and old-age pension schemes will also have to be reviewed. OECD research suggests that reforms which abolished policy-induced incentives to retire early would substantially boost labour-force participation of people in the age group 55-64, with effects of up to 20 percentage points or even above for males in some countries.⁹ More generally, two questions arise. First, whether pension systems should actually skew incentives against retirement, at least up to some age, in recognition that people who work provide a net positive impact on public budgets. Second, whether the notion of a fixed retirement age is consistent with and financially robust in the context of a continued trend toward increased longevity.

Figure 5. Incentives to retire and retirement behaviour



1. Difference in participation rates between the age groups 55-59 and 50-54 as a percentage of the participation rate of those aged 50-54 years.

2. The implicit tax on working an additional year is the foregone transfer/pension income plus the additional pension contributions paid minus any increase in future pensions as a result of delayed retirement, all expressed as a share of income from work. The calculations in all cases take account of the "regular" old-age pension scheme but consider somewhat different early retirement pathways depending on the country in question or, where such schemes do not apply widely, no such pathways.

Source: R. Duval and F. Jaumotte, "The retirement effects of old-age pension and early retirement schemes in OECD countries", OECD Economics Department Working Papers, No 370, 2003.

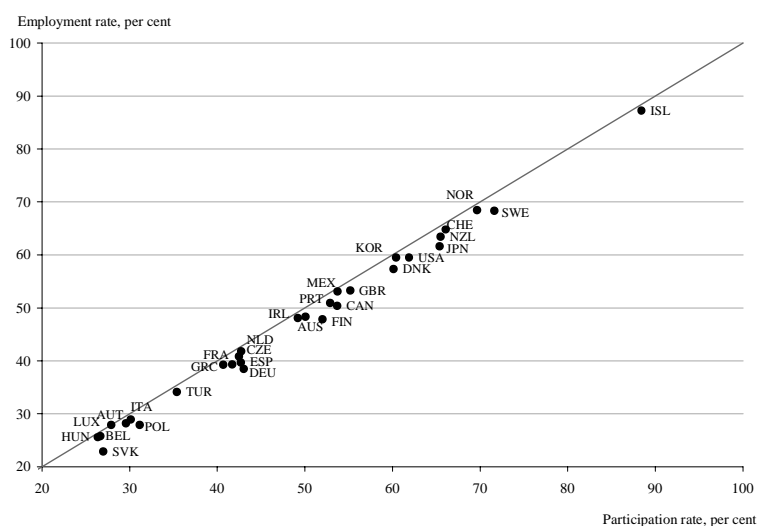
8. The relationship suggested by Figure 5 can be identified also with more elaborate econometric methods. See R. Duval, "The Retirement Effects of Old-Age Pension and Early Retirement Schemes in OECD Countries", *OECD Economics Department Working Papers*, No. 370, 2003.

9. See R. Duval, *op. cit.*

... and may be needed for them to find jobs

10. Successful policy reform to reduce the incentives for early retirement would lead to an added supply of older workers. This, however, is only necessary but not sufficient to reduce the ageing effect on public budgets and growth. They also have to find jobs. Cross-country experience suggests that there are no inherent barriers to the employment of older workers -- some countries manage to combine a high supply of labour from older workers with a high employment rate for this group (Figure 6). Nonetheless, in other countries there could well be barriers that would make it difficult for an added supply of older workers to find jobs. Thus, overly strict job protection and rigid wage structures may make firms hesitant to hire older workers. It may also be the case that a particular emphasis needs to be given to older workers in active labour market policies and the need to stay longer in work also has to be reflected in training throughout careers.¹⁰ Insofar as age discrimination is a barrier to the employment of older workers it may also be necessary to address this issue.

Figure 6. Participation and employment rates of older workers (55-64), 2002¹



1. 2001 for Austria.

Source: OECD Labour Force Statistics.

Reforms could remove barriers to female participation ...

11. Women also face a number of disincentives to supply labour. The non-neutrality of taxation as between the first and second earner in a couple is a prime example. But low female labour supply also reflects that for many women household production is a closer substitute for market work than in the case of males. Hence, female labour supply may be more affected by taxation than that of men. In principle, this might be an argument for lower taxation of women than men, but this is impractical and it has been argued that childcare support may be seen as a kind of second

10. The particular labour market issues facing older workers are currently being addressed in a series of country reviews under the title "Ageing and Employment".

best solution. There is also evidence that transfers that affect family income but not the return to work, such as child benefits, lead to lower female labour supply. Finally, female labour supply can be held back by inflexible working time arrangements -- in particular lack of access to part-time work. OECD research suggests that tax and child-care reform could have very sizeable effects on female participation rates, amounting to a rise of some 10 percentage points in the average OECD country.¹¹ These substantial effects might not fully translate into corresponding improvements on public budgets because some of the reforms, such as increased childcare subsidies or tax cuts, would be costly to budgets. Nonetheless, reforms along these lines could provide some help in addressing the ageing issue. Perhaps more importantly, reforms along these lines could be welfare and growth enhancing and could allow the many non-working women who in surveys reveal a desire for work to be faced with more neutral conditions affecting that choice.

... and speed up the passage of youth through education

12. The past rise in the entry age of young persons on the labour market, mentioned above, is a welcome development insofar as it reflects investment in education that yields a subsequent return in the form of higher productivity at work. However, this may not always be the case. In particular, the combination of compressed wages, generous student support and free tuition in some European countries may not spur effective investment in tertiary education. In principle, reform trends in some English-speaking countries that have introduced tuition fees and income-conditional repayment of student loans may provide better incentives for a faster pass-through of the education system. It is also the case that sometimes high youth unemployment acts as a deterrent to leave the education system, suggesting that policies to lower unemployment will bring an added bonus in terms of a quicker exit from the education system.

Disability and sickness can be reduced

13. High rates of disability and sickness among the population at working age point to a further source of increased labour input. Where disability and sickness appear to a large extent to be work related, the incentives to maintain a safe and healthy work environment may have to be reviewed. But there are also countries where lax administration of the conditions for granting and maintaining eligibility for public transfers boosts the number of people in such schemes. Eliminating unwarranted use of such schemes while maintaining the rights of those who have the need is difficult but has to be attempted. In order to achieve this difficult balance, reforms need to identify disabilities correctly, distinguishing between minor and major disabilities in order that the term "disabled" is no longer equated

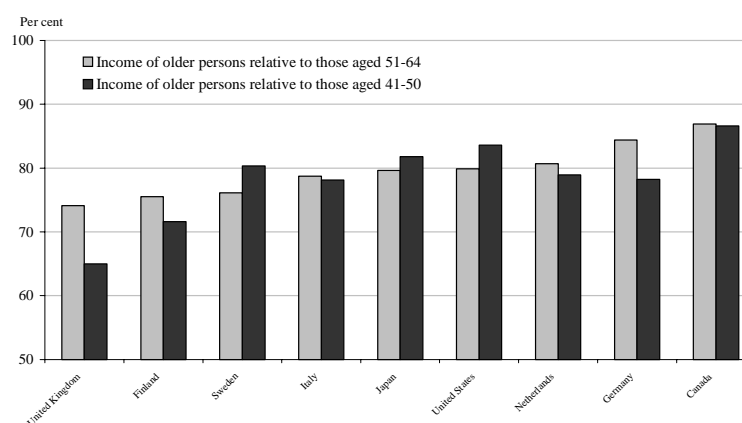
11. The linkages between female labour-force participation and various aspects of the incentives to supply labour are explored in F. Jaumotte, "Female Labour Force Participation: Past Trends and Main Determinants in OECD Countries", *OECD Economics Department Working Papers*, No. 376. As well, evidence on a number of issues concerning female labour supply is discussed in the thematic country review series "Babies and Bosses".

with being unable to work. Labour market policies can play a role in activating the disabled of working age.¹²

Most people can adjust to lower public pensions ...

14. Increases in participation and employment rates may go a considerable way towards putting public budgets on a more sustainable footing in the face of ageing, but it may not be enough. In countries where this is the case, reductions in the generosity of public pensions may have to be considered. Such moves have already been made in the past in a number of countries, but they may have to go further. They may also have to be more transparent to future pensioners than has been the case in the past, where reforms have often concerned technical parameters of pensions systems, such as indexation rules, the calculation of the pensionable wage and the accrual rate. Transparency about the implications of changes in such parameters for the future level of public pensions will give people time to adjust, for example through private pension saving. There is some evidence to suggest that, given sufficient knowledge, people will actually adjust. Thus, across a number of countries with widely different systems for pension provision OECD research found that most people achieved a replacement level of income of some 70-80 per cent (Figure 7).¹³ Nonetheless, low-income groups may be less well placed to adjust and policy would need to ensure that one of the great social policy achievements of the past -- the elimination of old-age poverty -- was not put at peril. Allowing people to adjust through private pension saving may also require reforms to ensure that financial sector framework conditions inspire confidence in the safety and healthiness of such saving.

Figure 7. Retirement income replacement rates¹



1. Mean disposable income of people aged 65 to 74 relative to that of those aged 51 to 64 or 41 to 50. Data refers to the mid-90s. Countries have been ranked from left to right based on the replacement rate relative to those aged 51-64. Source: OECD, *Ageing and Income*, 2001.

12. Early intervention via vocational rehabilitation and training can be critical to reintegration of the disabled into the labour market but countries often devote too few resources to this end; see OECD, *Transforming Disability into Ability: Policies to Promote Work and Income Security for Disabled People*, 2003.
13. See OECD, *Ageing and Income*, 2001.

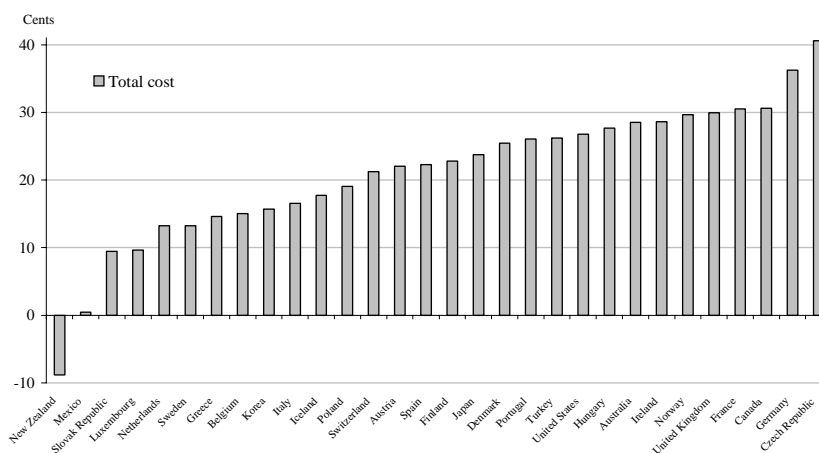
... and higher saving can boost growth for a while ...

15. Where reductions in public pension generosity and increased private pension saving go hand-in-hand, overall saving is likely to increase. If invested domestically, higher saving will boost capital formation and growth. Nonetheless, the return to saving may also decline which may be a reason to explore investment opportunities abroad. However, with most OECD economies and some major non-OECD economies such as China all undergoing ageing, the scope for exploiting investment opportunities abroad may be limited. Hence, the contribution that additional saving can give to growth should not be over-emphasised.

... but tax breaks for pension saving are costly

16. A number of countries have attempted to stimulate private pension saving through tax breaks. Indeed, OECD research suggests that the net tax cost of a dollar invested in a tax-favoured pension scheme ranges from around zero to some 40 cents (Figure 8). The implication is that where private saving gets reallocated from taxed savings vehicles to tax-favoured schemes, government budgets and national saving will deteriorate. Only if tax breaks for private pension saving generate a very substantial amount of new saving will the implications for public budgets be positive. Calculations of the current budgetary cost of private pension saving suggest that it may be in the range 0 to 2 per cent of GDP across OECD countries.

Figure 8. Net tax cost per dollar of contribution to tax-favoured pension schemes¹



1. Discounted effects on tax revenue over the lifetime of an individual of switching from saving in a regular, taxed saving vehicle to a tax favoured pension scheme. Based on the employer-sponsored schemes (except Italy and Korea) and annuity pension income. The outcomes in New Zealand and Mexico are driven by the following factors. In New Zealand, all types of accrued income from pension funds are taxed at 33%, while dividend (and capital gains) accruing to regular investment receive favourable tax treatment. In addition, employers' contributions are taxed at 21%, a rate lower than the marginal income tax rate. Mexico exempts income accruing to regular investment from taxation. Source: OECD Secretariat.

The right framework for pension saving is crucial

17. These considerations raise a number of questions concerning the policy framework for private pension saving. New saving is more likely to be generated where low-income individuals participate in such schemes. However, the returns to low-income individuals from participation in such schemes are typically low, both because private pension income may interact with income testing of public pensions and services and because tax breaks for private pension saving are usually given as allowances that tend to benefit high-income individuals. In addition, the generally high administration costs of private pension schemes may include fixed elements

that are particularly detrimental for low-income individuals. Thus, if private saving is to be significantly raised, and recognising that the return to low-income individuals may be low, some degree of collectivity in the design of schemes may be helpful, with the extreme form of mandatory participation chosen by some countries. Enterprise based schemes may also be more effective than individualised schemes in generating participation by low-income individuals but raise issues of their impact on labour market mobility. A further consideration in designing the policy framework for pension saving is the allocation of risk. There are many types of risk involved, prominently those associated with investment returns and longevity. The individual may not be best placed to carry these risks but may find it difficult to offload them, *inter alia* because annuities markets are prone to market failure. It is also likely that if downside risks materialised on a large scale, governments would be called upon to bail out those involved. Hence, it is important to have a policy framework which ensures that risk can be allocated at a reasonable price to those capable of bearing it.

***Accumulated wealth
could potentially finance
consumption***

18. A related issue is whether the considerable assets accumulated by many older people could play a role in cushioning living standards in the face of a reduction of public pensions. The weak development of annuities markets, and markets for corresponding instruments to turn housing wealth into an income stream that lasts until death, is one reason why many older people refrain from drawing down their wealth and, as a result, leave a bequest to their descendants. This underlines the importance of providing a policy framework that allows such markets to become established and function effectively.

***Reforms may be painful
but ultimately ageing
should be seen as an
achievement***

19. As is clear from the above discussion, there are no simple answers to deal with the issue of population ageing. Most likely, combinations of reforms across a wide range of policies will be required to adapt to the expected demographic change and to make economies as robust as possible to deviations from expected developments. Some of these reforms will be painful. But it should not be forgotten that, ultimately, they represent adjustment to a development that is extremely desirable: that people in much of the world lead longer and healthier lives than ever before.