

EMPLOYMENT OPPORTUNITIES FOR OLDER WORKERS: A COMPARISON OF SELECTED OECD COUNTRIES

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Low employment amongst older persons: not an ineluctable fate

In the face of, firstly, a rapidly ageing population and, secondly, the long-term trend towards early exit of older workers from the labour market in a number of countries, there is a need to promote better employment opportunities as well as incentives to work for persons aged 55 to 64 (inclusive).¹ Several European countries, in particular, have to raise employment rates significantly for older people in order to increase future economic growth and to reduce the future risk of labour shortages.

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¹ In common with most comparative studies, this article defines older workers as all workers aged 55 to 64. It will be mentioned explicitly if statistics refer to a different age group.

According to the report by the Employment Taskforce chaired by Wim Kok, the employment situation amongst older workers is a major cause for concern in the European Union: “Only four member states – Sweden, Denmark, Portugal and the United Kingdom – currently exceed the 50 per cent target for the employment of 55-to-64 year olds. At the other end of the scale Belgium, Italy, France, Luxembourg and Austria have employment rates for older workers of less than 33 per cent” (Employment Taskforce 2003, 15).

The need for action is also particularly urgent in Germany, as it, too, has a low employment-to-population ratio of older workers. Only 38.4 per cent of inhabitants between the ages of 55 and 64 were still in employment in 2002, compared with nearly 50 per cent some 30 years ago (Table 1). Germany will serve as the exemplar for those countries that have a rather low success in employing older workers. This article’s comparison with countries that have a better record in this area will focus mainly on specific case studies of countries analysed more thoroughly in two related studies (IW and IAAEG 2003; Funk 2004). Developments abroad prove that it is possible to achieve a higher rate of employment amongst older workers. This is shown not only by countries such as Sweden, Switzerland, the US, Denmark and the UK that are, by international comparison, enduring “success stories”. Other countries, such as The Netherlands, Finland and

Table 1
Employment-to-population ratios of persons aged 55 to 64 in selected highly industrialised countries (in percentages)

	1970	1975	1980	1985	1990	1995	2000	2002	Percentage change since 1990
Successful countries									
Sweden	63.7	64.6	65.7	65.0	69.4	61.9	65.1	68.3	-1.1
Switzerland	-	-	-	-	63.1 ^{d)}	62.0	63.3	64.8	+1.7
US	60.1	54.6	53.8	51.8	54.0	55.1	57.7	59.5	+5.5
Denmark	-	-	50.6 ^{c)}	50.1	53.6	49.3	54.6	57.3	+3.7
United Kingdom	-	-	-	47.0	49.2	47.5	50.5	53.3	+4.1
Catch-up countries									
Ireland	51.9 ^{a)}	48.1	44.8 ^{b)}	40.9	38.6	39.4	45.2	48.0	+9.4
Finland	56.8	51.6	47.1	45.4	42.8	34.4	42.3	47.8	+5.0
Netherlands	45.3 ^{a)}	40.4	36.3	27.3	29.7	29.4	37.9	41.8	+12.1
Base country									
Germany	49.6	41.6	42.2	35.5	36.8	37.4	38.6	38.4	+1.6
^{a)} 1971. – ^{b)} 1981. – ^{c)} 1983. – ^{d)} 1991. The employment-to-population ratio is defined as number of persons between the ages of 55 and 64 (inclusive) in work divided by the number of inhabitants of the same age.									
Source: Funk (2004) based on OECD (2003d) and OECD-LMS (2003).									

Ireland, have also been able to demonstrate that higher levels of employment amongst this age group are possible, despite the fact that previous employment rates for older persons amongst these countries were low. Indeed, at the beginning of the reform process, these countries had employment rates that were, in some cases, roughly comparable to Germany's low rate or even lower; however, in just a few years they have been able to increase the employment rate amongst older workers considerably (Table 1). In comparison to these other countries, Germany appears to be a laggard, as it neither has a high employment rate amongst older persons nor has it been able to increase this rate, to any significant degree, since 1990.

Based mainly on an analysis of the experiences of successful countries, this article identifies the fundamental conditions for a high employment-to-population ratio of older workers that could be applied in those economies that have a worse record in this area. Given the fact that all highly industrialised countries face more or less similar external circumstances in terms of structural changes (de Koning et al. 2004, 31), internal factors must be responsible for the good performance of role model countries and the relatively bad performance of Germany. Therefore, the general lessons that can be drawn from those countries with higher employment rates amongst older persons refer not only to this particular laggard but even more to countries with still lower employment rates of this age group.

According to the diagnosis put forward in this article, it is institutional frameworks – that is, employment legislation, wage bargaining legislation and social as well as qualification policies – that are detrimental to the labour market integration of older workers in laggard countries. In other words, the older workers' plight of low employment is the result of institutional policies that, due to increased international competition and the attendant structural changes within the economy, have attempted, first and foremost, to reduce emerging labour-market problems in a supposedly socially acceptable way by filtering older workers out of the workforce by implementing (*de facto*) early-retirement programmes. Hence, any reasonable therapy will have to address these institutional frameworks, as the lessons learnt from the existing successes of other countries show that it is these frameworks that are of fundamental importance.

The problem of which indicator to use

The employment-to-population ratio, which is used in Table 1, measures the number of employees – both the self-employed and those employed by someone else (though not the unemployed) – as a ratio of those of employable age amongst the whole population or amongst a certain age group. The reasons why it is a particularly informative indicator for comparing the labour-market performance of different countries are twofold.

- On the one hand, it is an especially appropriate indicator because those in gainful employment earn their own income, and, by paying taxes and social-security contributions, finance the outgoings of different social-security programmes. The greater the number of people with a job, firstly, the lower taxes and social-security contributions can be to provide a certain amount of social security, secondly, the better the correct incentives on the demand and supply sides of the labour market can function, and, finally, the lower and the more employment-friendly wages and non-wage labour costs can be.
- On the other hand, the indicator that is often used in these sorts of international comparisons – the unemployment rate amongst older persons – is flawed.² This is because alternative ways of non-employment that play an important role amongst older age groups distort the usefulness of the unemployment statistic as a measure of employment. While in Germany a lengthy spell of unemployment often characterises the start of a withdrawal from the labour market into retirement for older persons, this particular exit path is officially not available within public programmes in other countries; this means that other ways of retiring early are relied upon more heavily, even though the fundamental problems are contingent upon the labour market. Therefore, whether or not persons who are in a similar position in different countries are classified – and, hence, counted – in the statistics as someone who has taken early retirement or as someone who is (long-term) unemployed depends on the country in which he or she lives.³

² Roughly the same applies to the labour force participation rate as the unemployment rate is a component of the former indicator.

³ A comparison of 28 OECD countries shows that a reduction in the employment of people over 50 leads almost exactly to an increase in the inactivity of these persons (OECD 2003d, 82–83). The ways out of the labour market are, however, very different from one another and depend on the specific incentive structures.

To sum up, the various state regulations that govern the way individuals can withdraw from employment before they reach the legal age of retirement mean that the unemployment rate of older persons is, if considered by itself, a problematic statistic because its rate also depends upon the forms of different ways of retiring early. The use of the employment-to-population ratio avoids this problem. It is, in this respect, an indicator particularly suited to international comparisons.⁴

A simple analytical framework to analyse the causes of low employment amongst older persons

In general, a company’s decision to hire is based on the profitability of having additional employees. Real labour costs, on the one hand, and the individual productivity of an additional employee, on the other, determine at a given point in time the extent of employment in companies. Age becomes a factor in this decision when it adversely affects either labour costs or the employee’s productivity in carrying out the necessary tasks involved in doing the job. Therefore, employers’ willingness to hire older workers depends on a number of factors such as the direct wages and additional labour costs they have to pay for older workers relative to younger ones, as well as on their perception of the productivity and adaptability of older people. Different institutional settings for older workers – in terms of the welfare systems, employment protection legislation and labour law – may also affect employers’ decisions.

Additionally, the level of employment or the employment-to-population rates of those aged between 55 and 64 is influenced by the interaction between

⁴ A better indicator, arguably, would be employment-to-population rates adjusted for hours worked. However, appropriate data concerning labour supply are usually not available in terms of hours worked (Burniaux, Duval and Jaumotte 2003, 3). According to a new study that contains employment-to-population rates for persons aged 50 to 64 after adjustment for hours worked in the year 2000, all countries analysed in the current article apart from The Netherlands have a superior performance in this respect than Germany (OECD 2004a, 45).

“push” factors, which have a detrimental effect on the demand-side labour-market opportunities of older persons, and “pull” factors, which lead to a reduction in the incentives for this age group to find employment. For instance, supply-side factors, such as possibilities to take early retirement or “paths” – unemployment, perhaps – that can lead to early retirement can influence older workers’ willingness to seek gainful employment. Table 2 lists important influential factors. The interactions between push and pull factors can be interpreted as important causal mechanisms behind the low levels of employment amongst older workers in the laggard countries.

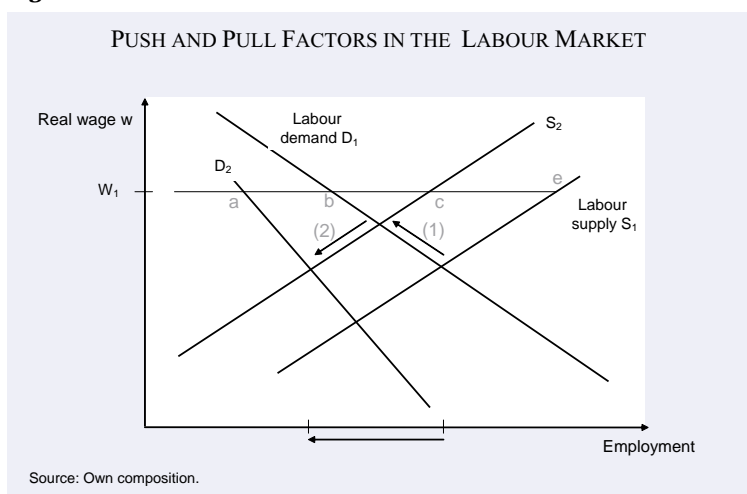
On a graph, the pull factors move the labour-supply curve towards the origin; the push factors shift the labour-demand curve towards the left (Figure 1). Either one leads, if other conditions remain the same, to a deterioration in the employment situation of those aged between 55 and 64 (arrow 1 or arrow 2). In their interaction, the push and pull incentives mutually reinforce one another (overall effect is a leftwards shift by arrow 1 and arrow 2). This is characteristic of countries with low employment rates amongst older age groups; it is especially evident in Germany as well.

On the one hand, older workers often act as preferred reserves of “flexibility” and adaptability at the

Table 2
Important push and pull factors that tend to reduce employment amongst older persons

Push Factors that tend to reduce the labour demand for those aged 55 to 64 by “pushing” them out of employment	Pull Factors that tend to reduce the supply of labour amongst those aged 55 to 64 by “pulling” them into unemployment or non-employment
<ul style="list-style-type: none"> • Employment protection legislation or regulations that have been expanded in collective agreements in order to support older workers 	<ul style="list-style-type: none"> • Longer periods for which unemployment benefits can be claimed for older workers
<ul style="list-style-type: none"> • Social-plan requirements and redundancy payouts that are determined either legally or by collective agreements in order to favour older workers 	<ul style="list-style-type: none"> • Easier withdrawal from labour market for older workers due to alternative pathways into early retirement programmes
<ul style="list-style-type: none"> • Wage rates based on the principle of seniority that are determined in collective agreements and social security payments linked to the labour contract by law 	<ul style="list-style-type: none"> • Relaxed eligibility in disability schemes
<ul style="list-style-type: none"> • Increased qualifications needed to meet current demands of work, above all, due to skill-biased technical change and globalisation 	<ul style="list-style-type: none"> • Implicit tax rates on continued work embedded in early retirement and in old-age pension schemes
<ul style="list-style-type: none"> • Less adaptable workers due to an ageing workforce 	<ul style="list-style-type: none"> • Decrease of labour supply due to demographic changes
Source: Funk (2004).	

Figure 1



firm level, despite – better precisely because of – the existing barriers that result from labour-market regulations, which are supposed to have a protective function for workers (for example, employment protection or redundancy payouts). However, from an employer’s point of view, these regulations raise the cost of older workers compared to younger ones at similar qualification levels. In problem situations, such as a sector-specific structural crisis, rationalisation pressures, decreases in product demand because of cyclical factors, and product and process innovations, all of which act as push factors, firms often react by “releasing” older workers. The reason is that at a given real wage, such push factors decrease the profitability of employing older workers compared to younger ones, even if their productivity is similar. Seniority wages can aggravate the employment problems of older workers. Steep wage increases beyond a certain age may explain why certain firms encourage older workers to enter an early retirement pathway.

On the other hand, older workers can often claim more generous unemployment benefits (either higher payouts and/or for a longer length of time; Werner and Winkler 2004) and/or have the possibility to enter into *de facto* early retirement programmes; both of these make continued employment unattractive because of the implicit taxes that would be “levied” if an older worker either remains in employment or, if he or she has recently been made redundant, were to seek new employment. In other words, due to the fact that pension levels of such factual early retirees are often not reduced accordingly, older people often have few incentives to remain in

work in countries where such pull factors are important.

Additionally, one has to take also into account the feedback effects on human-capital formation caused by institutionalised incentives for an early exit from the labour market. Such policies and the evolving practices influence the expectations of employees as well as employers. As a result of anticipated early exit from the labour market, investments in human capital decrease long before the actual transition into retirement:

the time horizons of both sides are reduced because of the institutional framework in which they operate, and they, therefore, cannot reckon on the market-based amortisation of such investments. Inadequate qualification of older workers due to the gradual erosion of skills that are not permanently freshened up shifts, however, the labour demand for this age group to the left and leads to a less elastic labour demand schedule.

According to the approach suggested here, an important consequence of strong push and pull effects in the direction of a low employment of older workers is an economic performance that lags, on average, behind countries that avoid such problems. This is caused by the inefficient use of existing human resources; this inefficient use is, in the final analysis, the result of institutional distortions. The push and pull mechanisms are either directly or indirectly related to institutional regulations that promote poor developments at the level of the economy as a whole. To be sure, a flawless separation between factors that are caused by the structural change in the economy and those that are caused by institutional push factors is not possible; however, institutional influences would obviously appear to outweigh those related to structural changes in the economy.

- For instance, as a result of insufficient human capital formation amongst older workers, demand for such workers is lowered. Both of these developments can be traced back to disincentives caused by the institutional framework in which employers and employees operate. This problem is not, however, the inevitable consequence of structural changes in the economy, as is sometimes claimed. Rather this is the result of an insufficient institu-

tional adaptation to a new environment; such an adaptation is, in principle, possible as the more successful role models demonstrate.

- Similarly, demographic changes do not necessarily cause the (aggregate) labour demand curve to shift to the origin as a result of missing skills due to ageing if older workers become more adaptable and update their qualifications. Instead, the leftward move in this curve that runs parallel to demographic changes relates much more to the institutional connections between the social security systems and labour contracts. Mainly due to this fact, the rising social security costs of an ageing society increase non-wage labour costs and, as a result, decrease labour demand and employment in general. If real wages are above the market-clearing rates, for example at w_1 in Figure 1 (now symbolising the macroeconomic labour market), then the gap between labour demand and labour supply symbolises unemployment (line b-e). To be sure, a reduction in the supply of labour, for instance by decreasing the length of working lives or by demographic changes (arrow 1: S_1 to S_2) lowers unemployment in the short term at the level of the economy as a whole (line b-c). However, the increases in social-security payments (and, possibly, real wages if unions demand higher wages to compensate for these increased deductions that are made on gross wages) associated with such a measure also reduce the demand for labour (arrow 2: D_1 to D_2). These increases, therefore, cause a new gap to emerge between labour supply and labour demand, for example at w_1 (line a-c) or, possibly, at a higher real wage. If the fact that, in many cases, qualified older workers cannot be replaced by younger workers without considerable search and training costs being incurred by firms is also taken into consideration, unemployment can, as a result, be even higher than it was. This problem will probably increase in salience in the future if no countermeasures are adopted. Moreover, the resulting cost increases in the factor labour strengthen the incentive to substitute labour for capital, as more far reaching rationalisations can, at least to a certain extent, compensate for, or reduce, the rises in unit costs. This leads to a further diminution in the level of employment (Funk et al. 2004, 203; Lesch 2004, 104–05).

The current structural changes do not inevitably go hand in hand with lower levels of employment. This has already been shown by the fact that many

countries comparable to Germany have higher employment rates (Table 1). Rather, policies of the government, the social partners and the companies can counteract, in principle, unwanted push and pull effects caused by disincentives for the employment of older workers. Moreover, as the next, empirical section that compares different countries will illustrate, higher employment levels amongst older persons do not, by any means, necessarily disadvantage younger workers.

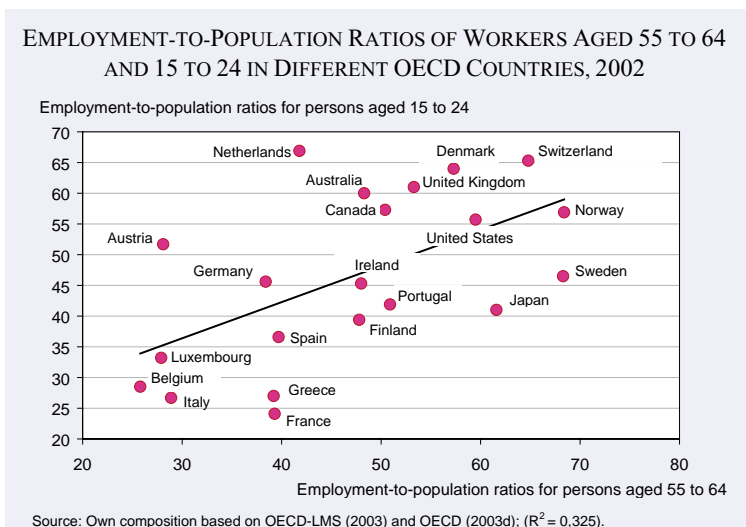
Do higher employment levels amongst older workers disadvantage younger employees?

The majority of suggestions advocating an early exit for older persons from the labour market in order to reduce unemployment assume that the total volume of work within an economy is fixed and is either technologically or economically limited by an inelastic demand for labour (the “lump of labour” approach, which is the main alternative approach to the theory suggested here; see for an evaluation also de Koning et al. 2004, 3–6). That the labour market is in no way characterised by a given volume of work can be shown, however, by an international comparison. Indeed, such a comparison of countries with high and low rates of employment amongst older persons illustrates that the labour market can absorb both older and younger workers at the same time (Figure 2).

The still widespread belief in the “lump of labour” approach which posits that an increase in the employment rate of older workers can only occur at the expense of younger workers is not borne out by the empirical facts. Indeed, it is the opposite that appears to be the case: there is a positive correlation between the employment levels of older persons with those of people aged between 15 and 24 as is shown in Figure 2. In short, those countries that have successful employment policies tend to have high levels of employment across both age groups.

In contrast to the comparison of averages shown in Figure 2, the longitudinal data for Germany shown in Figure 3 exhibit no significant inverse association between the employment levels of older and younger persons. The arrow drawn on Figure 3 demonstrates, however, that, between 1980 and 2002, the employment-to-population ratio of 15-to-24 year olds as well as that for 55-to-64 year olds has decreased considerably. Therefore, in

Figure 2



Germany, as in other countries, older workers do not, over the long term, take jobs away from younger persons. Rather the employment rate of both age groups has fallen considerably between 1980 and 2002 in the country used as the basis of many comparisons in this paper.

These results indicate that empirical developments cannot be interpreted in accordance with the lump of labour theory. They are, however, in line with the institutional approach suggested in this article.

Lessons from selected role model countries

The higher levels of employment amongst older workers in those successful and catching-up countries that are considered here result, above all, from more ade-

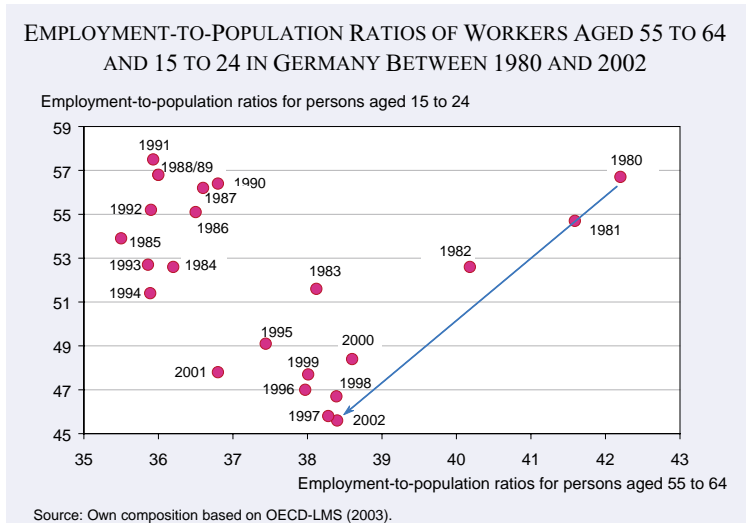
quate labour costs of older workers, greater labour-market flexibilities, pensions systems that are structured to provide more appropriate incentives, and relatively continuous and high investments in qualifications including those of older workers. It should, of course, be noted that the details of the mixture of institutional forms differ from country to country; however, on balance, there are greater incentives for those aged between 55 and 64 to remain in employment in the role model countries than there are in those countries that have difficulties in this area.

Labour costs and labour-market flexibility

Appropriate labour costs and a relatively low level of labour-market regulation obviously play an important role in explaining a satisfactory employment record for older persons in most countries.⁵ Wages and salaries as well as supplementary labour costs that are sufficiently flexible and regulations which have a relatively low level of intensity are important factors conducive to a high employment rate, in general, and high employment amongst older persons, in particular.

Relative wages of older workers are of decisive importance for their employment opportunities.⁶ If wages rise in line with seniority rather than with increases in productivity, wages of older workers can be too high given their mar-

Figure 3



⁵ Isolated de-regulations in product markets will not be discussed at any length here. Product market reforms have, in the medium term, a positive effect or neutral effect on employment when labour market regulation is kept constant (HM Treasury 2004, 55).

⁶ One has to keep in mind that age-earnings profiles do not give the whole picture of relative costs of older workers. Other large components of labour costs in most countries are social-security contributions and specific labour-market regulations directly linked to age. If the social-security contribution rate is a fixed percentage of an employee's salary (which is the case for most countries), the absolute gap in labour costs between older and younger workers will be higher than the gap in wage costs alone. However, the relative gap will be the same. Therefore, this issue is not discussed here (OECD 2004b, 88-89). See for the age-related specific regulations for older workers IW and IAAEG (2003).

Table 3
Relative wages of older male workers aged 60 to 64

Seniority wages of men*	Countries
High	Germany, Switzerland
Medium	Finland, Netherlands, Sweden, US
Low	United Kingdom
* Relative wages of older workers aged 60 to 64 compared to earnings of workers aged 25–29 (=100) in most recent years available; High = earnings larger than 130 per cent, medium = earnings between 110 and 130 per cent, low = earnings lower than 110 per cent. In general, relative wages of female workers are characterised by rather similar patterns at a lower level. No information is available for Denmark and Ireland.	
Source: European Commission (1999); OECD (2003b, 2003c, 2004a, 2004b).	

ginal productivity. The share of older workers in those countries in which seniority wages play an important role should be negatively affected if overall labour costs rise as a result of these higher relative wages of older workers. Unfortunately, empirical information on seniority wages is scarce. The available studies are either rather old (European Commission 1999) or they do not include all countries analysed in this article. However, based on limited observations in 15 OECD countries, recent cross-country regressions demonstrate a significant negative relationship between relative wages for older workers and the effective retirement age (OECD 2004b, 86–87): countries with high relative wages for persons aged 55 to 59 tend to have lower effective retirement ages than countries with less prominent seniority wage systems. As the employment rates of workers aged 55 to 64 and the average exit rates from the labour market in the countries of the European Union are strongly correlated (European Commission 2003a, 166), one may assume that a higher importance of seniority wages leads, on average, to a lower rate of employment amongst older workers.

Table 3 shows some evidence regarding the country sample in this article (albeit no information is available for Denmark and Ireland). As expected, (male) seniority wages ap-

pear to be rather important in Germany (European Commission 2003b, 94) and play hardly any role in the United Kingdom, where at the ages of 60 to 64 salaries are almost the same as for the age group 25 to 29 (OECD 2003c, 80). Finland, The Netherlands, Sweden and the United States occupy a medium position (European Commission 1999, 121; OECD 2003b, 75–80; OECD 2003c, 80; OECD 2004a, 83–85). Unexpectedly, however, in Switzerland older workers are more costly to employers as wages have a comparatively large seniority component, suggesting that wage differentials between the old and the young may not fully reflect productivity differentials. However, Switzerland appears to be able to compensate this disadvantage for the employment chances of older workers with one of the lowest levels of employment protection in Europe.

With regard to labour market flexibility, a clear association between a low level of labour-market regulation of 1.5 or less and a high level of employment both overall and amongst older workers is clearly discernible in the countries examined here (Table 4). Three of the five countries with relatively low levels of labour-market regulation exhibit an above-average record in the integration of older workers in the labour market. Britain, which also has a low level of regulation, has a record in this regard that is roughly comparable to the average. On the other hand, three of the countries that have a highly regulated labour market have records on the integration of older workers into the workforce

Table 4
Labour market regulation and employment performance

	Employment protection legislation*	Employment-to-population ratio in per cent (persons aged 15 to 64) Ø = 70,9	Employment-to-population ratio in per cent (persons aged 55 to 64) Ø = 49,6	Percentage point gap in the employment-to-population ratios Ø = 21,3
US	0.7	73.9	57.7	16.2
United Kingdom	0.9	71.7	49.4	22.3
Ireland	1.1	62.5	43.8	18.7
Switzerland	1.5	78.4	64.7	13.7
Denmark	1.5	76.5	54.2	22.3
Finland	2.1	66.0	39.2	26.8
Netherlands	2.2	71.3	35.3	36.0
Sweden	2.6	72.9	64.0	8.9
Germany	2.6	65.2	38.0	27.2
* The scale of the OECD indicator of employment protection legislation is 0 to 6, from least to most restrictive.				
Source: Funk (2004) based on OECD (1999, 2003d).				

market that are well below average. In two of these three countries the overall level of employment is also well below average. The outlier amongst the group of countries with low levels of labour-market regulation is Ireland, which is in the process of catching up with other countries (employment growth between 1985 and 2002 was 55.9 percent), and, as a result, lags behind other countries in its group both in terms of overall employment and employment amongst older workers. Nevertheless, the difference between the employment-to-population ratio of those aged between 15 and 64 and that for those between 55 and 64 is only slightly below average, and it is not higher than the figures for Denmark and Britain. Furthermore, it is considerably lower than the average for those countries that are relatively highly regulated.

Amongst this latter group of countries, Sweden does not conform to type, as it has an above-average level of employment overall as well as amongst older persons. However, it should be noted that Swedish policies are based, *inter alia*, on a level of taxation that requires workers to remain in employment (i.e. supply labour) until the legal retirement age if they wish to achieve a certain level of income.⁷ The Netherlands demonstrates that just because a country has an employment level slightly above average for 15-to-64 year olds does not automatically mean that it will have a similarly good record for older persons. The Netherlands has the greatest difference between the total employment-to-population ratio and the employment-to-population ratio for older workers; the figure for The Netherlands is 36 percentage points compared to an average of 21.3 percentage points.

This comparison shows that policies which mainly focus on the overall development of employment do not necessarily solve the problems of older workers. This is also a potential explanation of why The Netherlands cannot attain the higher employment-to-population ratios of “good practice” countries such as Sweden, Switzerland, the US and Denmark. Although a liberalisation of labour markets to such an extent as seen, for example, in

Britain and the US, is by no means a necessary condition for the successful integration of older workers in the labour market, more flexible labour markets, nevertheless, still appear to be a prerequisite or at least a functional equivalent to other political measures that would enable laggards like Germany with a low employment rate of older workers to follow in the footsteps of those successful countries.

To sum up, on the one hand, labour costs that are responsive to the possibly lower productivity of older workers are important factors in increasing employment amongst older persons, because, if they do not, the amount of work that firms demand from this section of the labour market will decrease. On the other hand, strict employment-protection policies seem to be an important barrier to the employment of older workers as is also shown in the simple model presented above.

Pension schemes and social transfer

For the actual decision to enter retirement, as is assumed in the theoretical push and pull model, the provisions of the pensions system including the possibilities to retire or “quasi-retire” early are, similarly, of importance. The lower the barriers are for an early exit from the labour market, the lower, on average, the actual age of retirement. Economic policies that aim to reform this area include measures to reduce, across the board, the future level of benefits from old-age pension schemes and quasi-schemes paid to those who retire early; these measures also include steps to strengthen the principle of equivalence as well as efforts to improve the compatibility of individual incentives of actuarial deductions, in the case of early retirement, from old-age pension schemes and quasi-pension schemes. In addition, incentives to take out privately funded pensions have been increased in order, firstly, to decrease, over the long term, state benefits that are financed on a pay-as-you-go basis, and, secondly, to reduce the negative side-effects of these pay-as-you-go systems (see for more thorough surveys of these issues also Council of the European Union 2003 and Duval et al. 2003).

In this respect, the experience of the successful and catching-up countries provides a clear reform agenda. Measures implemented in Switzerland and the US have not only led to higher levels of actuarial equivalence in the entitlements of individuals

⁷ Between 1996 and 2000, Sweden, compared to other countries, imposed, by far and away, the highest total burden on the production factor labour (wage and income tax plus taxes on consumption) of 77 percent, whereas the figure for western Germany was 50 percent (Nickell 2003, 23). High combined rates of income and consumption taxes similar to those in Sweden could not be implemented at the moment in other countries, including Germany, for political economy reasons; moreover, such high rates have considerable adverse effects (Henreckson 2001).

to pension benefits, but have also promoted the length of the working lifetime by changing the characteristics of pension schemes – in the US, the legal age of retirement is also slowly being increased to reach 67 in 2027. Great Britain is characterised, amongst other things, by the restriction of the state pension to minimum levels and a very restrictive interpretation and application both of the opportunities to retire early and of the possibilities to use alternative systems, such as disability pension schemes, for the purposes of, for all intents and purposes, retiring early. The latter is also a characteristic of systems in Switzerland and the US. Both of these countries have strengthened, as Ireland has also done, the capially funded parts of their pension systems, and both countries have, in part at least, changed their systems from defined benefits (that usually relates to the last wage or employment history) to defined-contribution schemes in which the pension benefits depend directly on the amount of money paid in and the rate of return on this investment.

The Danes and the Dutch have successfully increased employment levels amongst older workers, by introducing tax reductions if early retirement, which is in principle possible, is delayed. They have also introduced measures to strengthen the principle of equivalence by implementing stricter rules governing pensions paid to those retiring early. Moreover, in The Netherlands the benefits from a state pension, which for a long time were very generous, have been reduced. The inclusion in calculations of pension entitlements of contribution-free periods for spells of unemployment either does not happen (Sweden, Switzerland, the US) or is applied very restrictively (Denmark, Great Britain).

A particularly interesting innovation that deserves highlighting here is the “notional defined contribution” system that has recently been introduced in Sweden. The basic principle behind this system is to replicate the *modus operandi* of pension schemes funded with private capital within a pay-as-you-go system (Bräuninger 2003, 17). The basic rule is a strict equivalence of contributions and payments. Moreover, this rule is very transparent. Basically, the amount an individual receives as a pension depends only on the annual contributions that have been made by that individual. These contributions are then re-evaluated according to a formula that is the same for every individual and that

depends upon the effective age of retirement and developments in life expectancies. The advantages of such a system are obvious: there are no incentives to retire early in this public pension scheme. Moreover, the pension-policy holders can easily recognise the negative consequences of shortened working lives for their pensions. Furthermore, strengthened property rights promote the acceptance of the system and make political interventions more difficult (Bräuninger 2003, 18).

In those countries with low or very low employment rates amongst 55-to-64 year olds, the exposed flanks in the problem area of pensions are twofold: in particular, still rather extensive possibilities to enter into quasi-early-retirement schemes at an age below the regular retirement age, as well as insufficient deductions in the pensions of those who retire early to offset the fact that these individuals receive the pensions for a longer period of time. These actuarial deductions are often insufficient to persuade people to carry on working. Moreover, the increases (which are too low) in the pensions of those who continue working past the legal retirement age – that is those who extend their working lives beyond the age of 65 (in most cases) – should also be taken into consideration. In the countries considered here, it is, according to a recent study (Fenge et al. 2003, 46–48), only in Switzerland and the US⁸ – as well as to a somewhat lesser degree, in the future, in Finland – that the annual reductions in pensions for those who retire early are compatible with incentives to continue to work. The pensions are reduced by a magnitude of seven percent for each year of early retirement. Such a figure could, more or less, represent a very rough rule-of-thumb for other countries to aim at. This is also true for Great Britain and Sweden where increases and reductions in pensions are, in the vicinity of the legal retirement age, approximately of this magnitude.

Better qualifications for older workers

The incentives to invest in human-capital formation amongst older workers are, finally, also of cardinal importance. With the approach of retirement, investments in labour market-relevant qualifications decrease continuously, because the time peri-

⁸ In the United States (at ages 65 and 67), the incentives in the pension system even provide implicit subsidies to continued work at high ages, that is, the incentives are above actuarial neutrality (Casey et al. 2003, 16).

Table 5

Incidence of training by age and type in selected European countries, 2001*
– Percentage of population –

	Age 25–49				Age 50–64			
	Class-room	Work and work/class-room combined	Other	Total	Class-room	Work and work/class-room combined	Other	Total
Denmark	17.9	3.6	0.6	22.1	8.6	2.5	0.4	11.5
Finland	13.1	8.6	1.8	23.4	4.7	5.6	0.6	10.9
Germany	4.7	2.8	0.4	7.9	0.7	0.9	0.1	1.7
Ireland	4.0	3.5	1.7	9.2	1.4	1.4	1.1	3.8
Netherlands	1.6	9.0	2.2	12.8	0.2	3.4	0.6	4.2
Sweden	11.9	6.1	3.1	21.1	3.7	5.2	3.0	11.8
United Kingdom	7.7	8.5	2.8	18.9	3.2	5.0	1.3	9.5

* The question on training was “Have you received some education or training in the past 4 weeks?”

Source: OECD (2003a) based on European Labour Force Statistics.

od in which the resultant increases in productivity can be exhausted shrinks. Therefore, it is not surprising that the likelihood of participating in further education or training programmes decreases as age increases. Prolonging the remaining time horizon of older workers by better incentives to stay in the labour market and specific training programmes designed to improve the competitiveness of older workers in the labour market attempt to reverse this development. Such measures increase both labour demand and employment, in principle.

Countries with problems in this area, in particular Germany, have a long way to catch up. For instance, in Germany, only 1.7 percent of those workers above the age of fifty answered yes when asked if they had received training in the last four weeks. In Sweden, on the other hand, 11.8 percent responded with a yes; in Denmark, the figure was 11.5 percent, and in Finland, it was 10.9 percent. Moreover, even before this age is reached, Germany's problems in keeping human capital up to date to the same extent as comparable countries are already manifest. All of the successful countries, on the other hand, excel in setting incentives in such a way that the participation of older workers in training schemes is higher than it is in Germany (Table 5; see for additional evidence IW and IAAEG 2003, 43-44).

A constant improvement in qualifications is a factor of central importance in ensuring success, because, in the new world of work, it is no longer possible to rely on static “knowledge reservoirs.” In Switzerland older workers appear to have the same opportunities to embark on further training

that is paid for by employers as younger workers, even if problems persist. Great Britain illustrates that state-promoted investments in the employment skills and in the productivity of older workers needed in the labour market can result in a high participation rate amongst 55-to-64 year olds on both general and more job-oriented training courses. Further evidence suggests that efforts to improve lifelong learning amongst older workers (as is the case in Finland) and attempts to promote further training by providing state subsidies for “learning accounts” (as in The Netherlands) are possible and can be successful. Sweden is also characterised by relatively high participation rates of those aged between 55 and 64 on general and career-specific training programmes; however, this additional training takes place, to a rather strong extent, within the bounds of active labour-market policies and masks not least, therefore, open unemployment.

Conclusions

In order to overcome economic growth problems and to counter future demographic changes, it is imperative, precisely in those countries with low employment levels amongst older persons, that the employment potential and experiences of this age group are, once again, relied more heavily upon. An analysis of the factors that have led to success in employment levels for older workers in the countries that are paragons as well as for those that are catching up provides the following lessons for laggards, such as Germany and several other countries particularly in western Europe, that are expe-

riencing problems in this area: a reversal in the trend in the employment-to-population ratio of older persons is – in contrast to what, for a long time, has been maintained in the political debate – quite possible. However, to achieve this, important changes in the incentive structure are needed. It should be noted that, to a certain degree, different alternatives within the “policy mix” to re-integrate older workers back into the labour market exist. However, if market-based policies are to be pursued to increase the employment-to-population ratio amongst older persons, three strategic starting points have always been of central importance, despite all of the country-specific differences:

- a lower level of labour-market regulation is conducive to higher employment-to-population ratios for all; this is especially true for older workers even if such a strategy alone will not necessarily suffice (in terms of Figure 1 a shift in the labour-demand curve outwards and a movement on that curve towards the market-clearing wage rate);
- pension systems and other *de facto* early retirement programmes need to be changed to make early retirement more difficult and financially less attractive for both employees and employers; increasing the regular retirement age can improve inclusion of older workers further (a shift in the labour-supply curve outwards), and
- higher investments in existing human capital, including investments for those workers especially over the age of forty-five, make a considerable contribution to avoiding the erosion of skills and improving the employability of (future) older workers. Moreover, companies may reorganise working hours and facilitate job rotation to enhance the retention prospects of older workers and their ability to adapt to change. (Such investments shift and rotate the labour-demand curve, which in countries with problems in this area tends to be inelastic for older workers, to the right.)

Additional lessons can be learnt, especially from those countries that are catching up. For instance, in countries that started off with low levels of employment amongst older persons, integrated reform packages that re-structure all of the problem areas noted above in a more employment-friendly way lead to success in the medium term. In contrast, isolated individual measures that are not really integrated with one another and that offer

too low a “dosage” tend to result in stagnation rather than movement towards higher employment levels amongst older persons. In particular, if the employment level amongst older people is very low and it can be shown that deficits exist in all of the areas discussed above, a policy mix that addresses all of these problem areas may well lead most rapidly to the desired increase in employment amongst older persons. In composing such a policy mix, it is of cardinal importance that individual measures mutually reinforce one another in their effects (OECD 2003a, 105-106). At the same time, however, it should be noted that the greater use of one instrument can (at least in part) compensate for the lesser use of another in the effects on employment amongst older persons. That is to say, to a certain extent, instruments are interchangeable and represent functional equivalents.

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