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OECD Employment Outlook: 2003
Towards More and Better Jobs

Chapter 1

More and Better Jobs? Aggregate Performance During the Past Decade

The share of the working-age population in employment rose in two thirds of all OECD countries during the past decade. However, the OECD average hides a wide diversity of experiences, ranging from dramatic increases in employment rates in a few countries to rising unemployment or greater labour market inactivity in others. Are employment gains registered during the past decade sustainable? How do employment losses recorded in the current economic slowdown compare with previous recessions? Is there evidence that progress in increasing employment has been accompanied by improvements in "job quality", notably as regards earnings inequality, job insecurity and working conditions?

Introduction

The comparative resiliency of the labour market in the current economic slowdown provides some hope that structural reforms may have begun to pay-off in a long-run improvement of employment performance.[1] However, the improvement in aggregate performance that has been observed for the OECD area as a whole during the past decade is modest and masks important differences across member countries. Furthermore, even in those OECD countries where significant improvements in employment performance have been registered, concerns remain about the sustainability of these gains. In particular, it is not yet clear whether structural reforms have produced a durable reduction in unemployment, once cyclical fluctuations and other transitory factors (*e.g.* the Internet bubble of the late 1990s) are accounted for.

Another concern is how broadly recent employment gains have been shared across the working-age population. Distributional concerns focus on groups within the working-age population whose members tend to be found on the margins of the labour market, even when employment is robust overall. Often, the employment to population ratios of women, older workers, low-skilled workers, and persons with partial disabilities or who live in economically depressed regions remain relatively low, with potentially adverse consequences for their living standards and the long-term fiscal viability of important social programmes (see Chapter 2 for a detailed analysis of the employment situation and career prospects of these groups).

Discussions about the structural performance of labour markets also touch upon the broader issue of job "quality." One such debate concerns the relationship between the quantity and quality of employment, including whether some of the policies intended to expand employment may also tend to increase the segmentation of the labour market between "good" career jobs, which are available to workers with skills that are in demand, and low-paid, precarious jobs which are available to those on the margins of the labour market. In some countries, rising incidences of non-standard forms of employment (short-term contracts, temporary jobs, casual employment, etc., see OECD, 2002a) or in-work poverty (OECD, 2001a) provide some support for this concern. But other commentators argue that these jobs may represent valuable stepping stones to moving up the job ladder and, in any case, are better than no job at all.[2] A second debate concerns the possibility that new patterns of work organisation are resulting in a more "intense" pace of work, which may create health problems, make it more difficult to reconcile work with family life, or tend to push older workers into withdrawing from the labour market earlier than otherwise would be the case (Green, 2002; Green and Gallie, 2002).

This chapter documents recent trends in labour market performance in both quantitative and qualitative terms in order to throw some light on these debates. Section 1 establishes the essential baseline by documenting the recent evolution of employment, unemployment and inactivity. Some attention is devoted to current

macroeconomic conditions, but the emphasis is placed on assessing progress in expanding aggregate employment during the past decade and identifying which population groups benefited most from these gains. Section 2 analyses whether employment gains – where they occurred – are structural in nature and, hence, likely to prove sustainable. The final section looks at a number of aspects of job quality, including pay, working conditions and employment security.

Main findings

- Unemployment has risen by approximately 1 percentage point in the OECD area since its recent low in 2000-2001, as global economic activity has slowed, reversing approximately two-thirds of the decline during the second half of the 1990s. However, these averages mask important differences across OECD countries in both the severity of the current slowdown and the trend evolution of unemployment rates during the previous decade. Unemployment rates have trended upward since 1990 in Japan and Central and Eastern European (CEE) countries, but downwards in the European Union, North America and, particularly, Oceania.[3] In the latter three regions, a significant share of the improvement in employment and unemployment that was registered during the 1990s expansion has been maintained through the current slowdown, suggestive of increased labour market resiliency in the face of negative shocks. Nonetheless, the prospects for economic recovery remain uncertain and the slowdown highlights the potential reversibility of the improvements in labour market performance that were registered in a number of OECD countries during the past decade.
- The employment to population ratio rose during 1991-2001 in two-thirds of all OECD countries, consistent with a trend improvement in overall labour market performance. Although the average increase in the employment rate was small (1.1 percentage point), the increase exceeded 2 percentage points in one-half of these countries and exceeded 10 percentage points in Ireland and the Netherlands. However, large reductions in employment rates occurred in the CEE countries, associated with the transition from centrally-planned to market-based economies. Among other OECD countries, significant reductions in employment were registered in Turkey (10.2 percentage points) and Sweden (5.8 percentage points). Changes in both unemployment and, especially, participation rates contributed to changing the employment rate in most countries.
- In countries where the aggregate employment to population ratio rose during 1991-2001, those gains were widely shared across workforce groups. The increase in employment was especially strong for women and often quite strong for older workers, for whom rising participation reinforced the impact of declining unemployment: the secular increase in female participation continued in almost all countries, while improving labour market conditions and cuts in incentives for early retirement resulted in a reversal of the secular decrease in participation among older workers in quite a few countries. By contrast, the employment to population ratios for youths and less educated persons fell over the past decade in a large majority of OECD countries. In the case of youths, this was partly due to a rise in the proportion of young people in school and hence is not necessarily indicative of growing labour market difficulties for youths generally, but declining employment for low-skilled persons probably reflects a further deterioration of labour market opportunities for this group.

- It is difficult to assess the relative importance of cyclical and structural factors in the improvements in labour market performance during the past decade, where they occurred. Nonetheless, the evidence suggests that a considerable share of the progress observed may be structural in nature and, hence, potentially sustainable. OECD estimates of the equilibrium rate of unemployment (*i.e.* the non-accelerating inflation rate of unemployment or NAIRU) indicate a downward trend for the large majority of countries. Direct evidence is also found for increased wage restraint, including the fall in the wage share in a number of European countries and Japan. The more muted rise of real labour costs in many European countries may have helped labour demand. Indeed, the private business sector has accounted for a rising share of employment growth over the 1990s in marked contrast with the experience in the two previous decades. However, Beveridge curves shifted favourably, signalling an improvement in the *matching* of unemployed persons to vacancies, in only a few OECD countries.
- The overall picture with regard to recent trends in job quality is mixed. Recent trends provide some support for concerns that the policies and institutional configurations that facilitated strong employment growth may also have tended to cause overall wage inequality to increase. However, the proportion of workers in low-paid employment has increased significantly in only a few countries and there is little support for the fears sometimes expressed that recent increases in employment are mainly due to a proliferation of low-paying jobs, or that reforms intended to mobilise groups at the margins of the labour market have resulted in lower productivity growth.
- Changes in working conditions, another important dimension of job quality, also give a mixed picture. The share of European workers reporting that they are exposed to health and safety risks at work has fallen, but the proportion reporting that they are working at very high speed or to tight deadlines is on the rise. Those working long hours or at an intense work pace also report a greater number of stress-related health problems and greater difficulty in reconciling work and family life.
- Part-time jobs accounted for half or more of total employment growth over the past decade in one-half of all OECD countries, and for a considerable share of new jobs in quite a few more. Part-time work accounted for a particularly large share of total employment gains for women and youths in most countries – and also for older workers in a smaller number of countries – suggesting that shorter working hours are often useful for reconciling paid employment with other activities, such as parenting, study or a form of phased retirement. Temporary employment also grew in two-thirds of OECD countries, but accounted for half or more of total job gains in only five countries. Although temporary employment generally was less dynamic than part-time employment, its expansion raises particular concerns because the majority of temporary workers would prefer permanent jobs and the spread of temporary jobs may account, in part, for the decline in subjective appraisals of job security.
- Survey evidence shows that perceptions of employment insecurity are on the rise. This is somewhat paradoxical as job tenures have not become shorter and average wage reductions following job loss are relatively small for workers finding another job. Fears of becoming long-term unemployed after dismissal may account for the perception of insecurity, particularly among low-skilled workers.

1. How much has aggregate performance improved?

A. Latest developments and short-term prospects

As a result of the economic slowdown, employment growth in the OECD area almost came to a halt in 2002, after growing 1 percentage point per year on average between 1990 and 2000 (Table 1.1). The latest OECD projections suggest that the hesitant recovery already underway for some time in the United States will solidify, leading the way for a broader recovery throughout the OECD area. As a result, employment growth is projected to resume slowly this year and return to 1.1% in 2004. Although a sluggish recovery appears to be the most likely short-term scenario, the world economic outlook is characterised by an unusual degree of uncertainty, with down-side risks predominating.

Labour force growth has slowed in response to worsening job prospects, but not enough to prevent unemployment from rising. Unemployment increased by 0.5 percentage points (or 3.1 million persons) in the OECD area in 2002, reaching 6.7% (or 36.4 million persons unemployed), and is projected to increase further to 7% in 2003, before easing to 6.8% in 2004 (Table 1.2). Unemployment rose by a relatively large 1 percentage point to 5.8% in the United States in 2002 – only Turkey and Poland registered larger increases – and it is projected to rise further in 2003 before moderating slightly in 2004. The effects of the slowdown have been slower to manifest themselves in EU labour markets, but the descending path of unemployment reversed in 2002 and the EU unemployment rate is projected to rise to about 8.0% in 2003-2004. In Australia and New Zealand, the unemployment rate declined slightly in 2002 and is expected to remain stable or decline slightly through 2003-2004.

Under these projections, the current slowdown will only partially reverse the gains in aggregate employment and unemployment that occurred during the second half of the 1990s (Chart 1.1). Unemployment is projected to rise by approximately 1 percentage point in the OECD area during 2000-2003, reversing approximately two-thirds of its decline during the late-1990s expansion, while the employment to population ratio is projected to surrender 58% of its earlier 1.8 percentage-points rise. However, the overall resilience of OECD labour markets in the current slowdown masks highly diverse experiences across OECD regions in the evolution of employment during both the current slowdown and the previous business cycle. A common business cycle component – with labour market conditions worsening in the early 1990s, improving in the late 1990s and then worsening again after 2000 – is visible in all regions. However, it is superimposed over a worsening trend in labour market performance in the CEE and Asian members of the OECD, but over an improving trend in the European Union, North America and Oceania.

Chart 1.2 compares the responsiveness of employment to cyclical variations in GDP for 1989-93 and 2000-2002, demonstrating that the employment response to the current slowdown appears to have been more muted than was the case during the slowdown of the early 1990s, particularly in EU countries. This finding is consistent with speculation among some observers that structural reforms may have made labour markets more resilient to external shocks, particularly in the European Union (European Commission, 2002). However, it would be premature to draw a strong conclusion on this point, since the current slowdown is recent and relatively shallow in most of the OECD. Another reason for caution is that this finding needs to be reconciled

Table 1.1. **Employment and labour force growth in OECD countries**[a]

Annual percentage change

	Employment						Labour force					
	Level in 2001 (000s)	Average 1990-2000	2001	2002	Projections 2003	Projections 2004	Level in 2001 (000s)	Average 1990-2000	2001	2002	Projections 2003	Projections 2004
North America												
Canada	15 076	1.3	1.1	2.2	2.1	1.7	16 249	1.2	1.5	2.6	1.8	1.3
Mexico	39 386	2.9	–0.3	1.4	2.0	2.7	40 351	2.8	–0.1	1.7	2.0	2.4
United States	136 941	1.4	0.0	–0.3	0.9	1.4	143 783	1.3	0.8	0.8	1.1	1.2
Asia												
Japan	64 121	0.3	–0.5	–1.3	–0.6	–0.2	67 518	0.6	–0.2	–0.9	–0.3	–0.2
Korea	21 362	1.5	1.4	2.4	1.3	1.7	22 181	1.7	1.1	1.7	1.5	1.5
Europe												
Austria	4 077	0.4	0.7	–0.4	–0.4	0.3	4 282	0.4	0.8	0.2	0.2	0.2
Belgium	4 198	0.5	1.4	–0.2	–0.1	0.7	4 498	0.6	1.2	0.4	0.5	0.6
Czech Republic[b]	4 707	–0.4	0.7	1.2	0.1	0.1	5 128	0.3	0.0	0.2	0.0	0.0
Denmark	2 721	0.2	0.2	0.1	0.0	0.5	2 845	0.0	0.1	0.2	0.2	0.2
Finland	2 359	–0.7	1.4	0.2	0.0	0.5	2 597	0.0	0.7	0.1	0.1	0.3
France	24 517	0.6	1.6	0.4	–0.1	0.7	26 838	0.7	0.7	0.7	0.4	0.5
Germany[c]	38 917	0.4	0.4	–0.6	–1.0	0.0	41 991	0.5	0.4	–0.1	–0.4	0.1
Greece	3 921	0.6	–0.3	–0.1	0.6	0.9	4 378	1.0	–1.1	–0.6	0.0	0.4
Hungary[d]	3 803	–0.8	0.5	–0.2	–0.3	–0.2	4 036	–1.2	–0.3	–0.1	–0.2	0.2
Iceland	159	1.3	1.7	–0.2	0.5	1.5	163	1.3	1.7	0.6	0.8	1.2
Ireland	1 741	3.8	2.9	1.4	0.6	1.3	1 812	2.9	2.5	1.7	1.5	1.5
Italy	21 300	–0.1	2.0	1.5	0.5	1.2	23 567	0.1	0.8	0.9	0.5	0.8
Luxembourg	277	3.4	5.6	3.1	0.7	1.7	282	3.5	5.5	3.4	1.4	1.6
Netherlands	7 064	2.1	2.1	0.7	–0.6	0.1	7 210	1.7	1.5	1.2	1.1	1.0
Norway	2 278	1.1	0.4	0.2	0.0	0.3	2 362	0.9	0.5	0.6	0.6	0.4
Poland[d]	14 207	–0.8	–2.2	–3.0	–1.0	1.0	17 376	–0.4	0.4	–0.9	–0.4	0.4
Portugal	5 063	1.0	1.6	0.3	–0.4	1.1	5 279	0.9	1.7	1.3	1.1	0.9
Slovak Republic[e]	2 124	–0.1	1.0	0.2	0.6	0.8	2 632	1.0	1.7	–0.7	–0.5	–0.3
Spain	15 946	1.7	3.7	2.0	1.4	2.1	17 815	1.7	3.1	3.0	2.2	1.8
Sweden	4 239	–0.8	2.0	0.1	–0.3	0.4	4 415	–0.4	1.3	0.1	0.2	0.2
Switzerland	4 154	0.3	1.7	0.6	–0.5	0.6	4 221	0.4	1.6	1.3	0.4	0.4
Turkey	20 367	0.8	–1.0	–0.4	1.1	1.2	22 269	0.6	1.1	1.9	1.0	1.3
United Kingdom	27 505	0.2	0.8	0.7	0.2	0.5	28 976	0.2	0.3	0.8	0.4	0.3
Oceania												
Australia	9 188	1.4	1.1	2.0	1.7	1.8	9 854	1.3	1.5	1.5	1.5	1.5
New Zealand	1 823	1.8	2.5	2.9	1.1	1.0	1 925	1.7	1.8	2.8	1.0	1.2
European Union	163 845	0.5	1.4	0.5	0.0	0.7	176 784	0.5	0.9	0.7	0.5	0.6
OECD Europe[f]	215 642	0.5	0.9	0.2	0.0	0.7	234 970	0.6	0.8	0.7	0.4	0.6
Total OECD[f]	503 539	1.0	0.4	0.1	0.5	1.1	536 832	1.0	0.7	0.7	0.8	0.9

a) The OECD Secretariat's projection methods and underlying statistical concepts and sources are described in detail in "Sources and Methods: OECD Economic Outlook" which can be downloaded from the OECD Internet site (*www.oecd.org/EN/document/0,,EN-document-0-nodirectorate-no-2-26100-0,00.html*).

b) The average growth rate has been calculated for 1993-2000.

c) The average growth rate has been calculated by chaining the data for the whole of Germany to the corresponding data for western Germany prior to 1992.

d) The average growth rate has been calculated for 1992-2000.

e) The average growth rate has been calculated for 1994-2000.

f) The average growth rate for 1990-2000 excluded the Czech Republic, Hungary, Poland and the Slovak Republic.

Source: *OECD Economic Outlook*, No. 73, April 2003.

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Table 1.2. **Unemployment in OECD countries**[a]

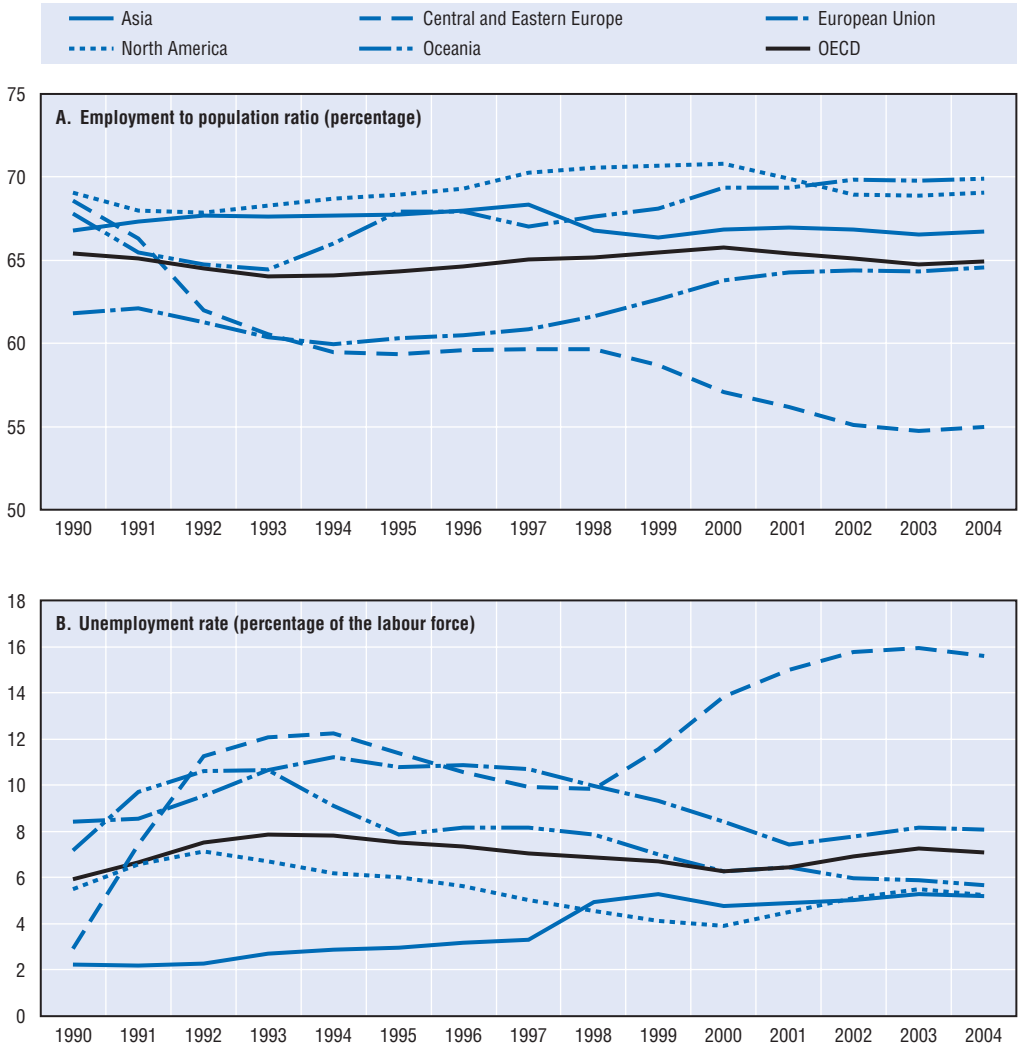
	Percentage of labour force					Millions				
	Average 1990-2000	2001	2002	Projections		Average 1990-2000	2001	2002	Projections	
				2003	2004				2003	2004
North America										
Canada	9.3	7.2	7.7	7.3	7.0	1.4	1.2	1.3	1.2	1.2
Mexico	3.5	2.4	2.7	2.7	2.4	1.3	1.0	1.1	1.1	1.0
United States	5.6	4.8	5.8	6.0	5.8	7.4	6.8	8.4	8.8	8.6
Asia										
Japan	3.2	5.0	5.4	5.7	5.7	2.1	3.4	3.6	3.8	3.8
Korea	3.3	3.7	3.0	3.2	3.0	0.7	0.8	0.7	0.7	0.7
Europe										
Austria	5.1	4.8	5.3	5.9	5.9	0.2	0.2	0.2	0.3	0.3
Belgium	8.3	6.7	7.3	7.8	7.7	0.4	0.3	0.3	0.4	0.4
Czech Republic[b]	5.7	8.2	7.3	7.2	7.2	0.3	0.4	0.4	0.4	0.4
Denmark	6.7	4.3	4.5	4.7	4.4	0.2	0.1	0.1	0.1	0.1
Finland	11.7	9.2	9.1	9.2	9.0	0.3	0.2	0.2	0.2	0.2
France	10.9	8.6	8.9	9.3	9.2	2.8	2.3	2.4	2.5	2.5
Germany[c]	7.5	7.3	7.8	8.3	8.3	3.1	3.1	3.3	3.5	3.5
Greece	9.6	10.4	10.0	9.5	9.1	0.4	0.5	0.4	0.4	0.4
Hungary[d]	9.3	5.8	5.9	6.0	6.4	0.4	0.2	0.2	0.2	0.3
Iceland	3.5	2.3	3.1	3.3	3.0	0.0	0.0	0.0	0.0	0.0
Ireland	11.3	3.9	4.2	5.0	5.2	0.2	0.1	0.1	0.1	0.1
Italy	10.7	9.6	9.1	9.2	8.9	2.4	2.3	2.2	2.2	2.1
Luxembourg	1.9	1.7	2.0	2.7	2.6	0.0	0.0	0.0	0.0	0.0
Netherlands	5.5	2.0	2.5	4.1	5.0	0.4	0.1	0.2	0.3	0.4
Norway	4.7	3.5	4.0	4.5	4.6	0.1	0.1	0.1	0.1	0.1
Poland[d]	13.2	18.2	19.9	20.4	19.9	2.3	3.2	3.4	3.5	3.4
Portugal	5.5	4.1	5.1	6.4	6.3	0.3	0.2	0.3	0.3	0.3
Slovak Republic[e]	14.0	19.3	18.6	17.7	16.8	0.4	0.5	0.5	0.5	0.4
Spain	14.8	10.5	11.4	12.0	11.7	2.3	1.9	2.1	2.2	2.2
Sweden	6.1	4.0	4.0	4.5	4.3	0.3	0.2	0.2	0.2	0.2
Switzerland	2.9	1.6	2.3	3.1	2.9	0.1	0.1	0.1	0.1	0.1
Turkey	7.4	8.5	10.6	10.5	10.6	1.6	1.9	2.4	2.4	2.5
United Kingdom	7.7	5.1	5.2	5.4	5.2	2.2	1.5	1.5	1.6	1.5
Oceania										
Australia	8.4	6.8	6.3	6.1	5.8	0.8	0.7	0.6	0.6	0.6
New Zealand	7.8	5.3	5.2	5.1	5.3	0.1	0.1	0.1	0.1	0.1
European Union	9.0	7.3	7.6	8.0	7.9	15.3	12.9	13.5	14.4	14.3
OECD Europe[f]	8.7	8.2	8.7	9.1	9.0	17.1	19.3	20.6	21.6	21.5
Total OECD[f]	6.4	6.2	6.7	7.0	6.8	30.8	33.3	36.4	38.0	37.5

a) See note to Table 1.1.
b) The average has been calculated for 1993-2000.
c) The average growth rate has been calculated by chaining the data for the whole of Germany to the corresponding data for western Germany prior to 1992.
d) The average has been calculated for 1992-2000.
e) The average has been calculated for 1994-2000.
f) The average for 1990-2000 excluded the Czech Republic, Hungary, Poland and the Slovak Republic.

Source: *OECD Economic Outlook*, No. 73, April 2003.

Chart 1.1. **Strong gains preceded the current slowdown in the EU and Oceania**

Evolution of employment and unemployment in selected OECD areas,[a] 1990-2004[b]



a) Population-weighted values for the areas shown. The regional groupings are defined as follows: Central and Eastern Europe (the Czech Republic, Hungary, Poland and the Slovak Republic), European Union (15 EU member countries as of 2002), Asia (Korea and Japan), North America (Canada, Mexico and the United States), Oceania (Australia and New Zealand).

b) Data for 2003-2004 are projections.

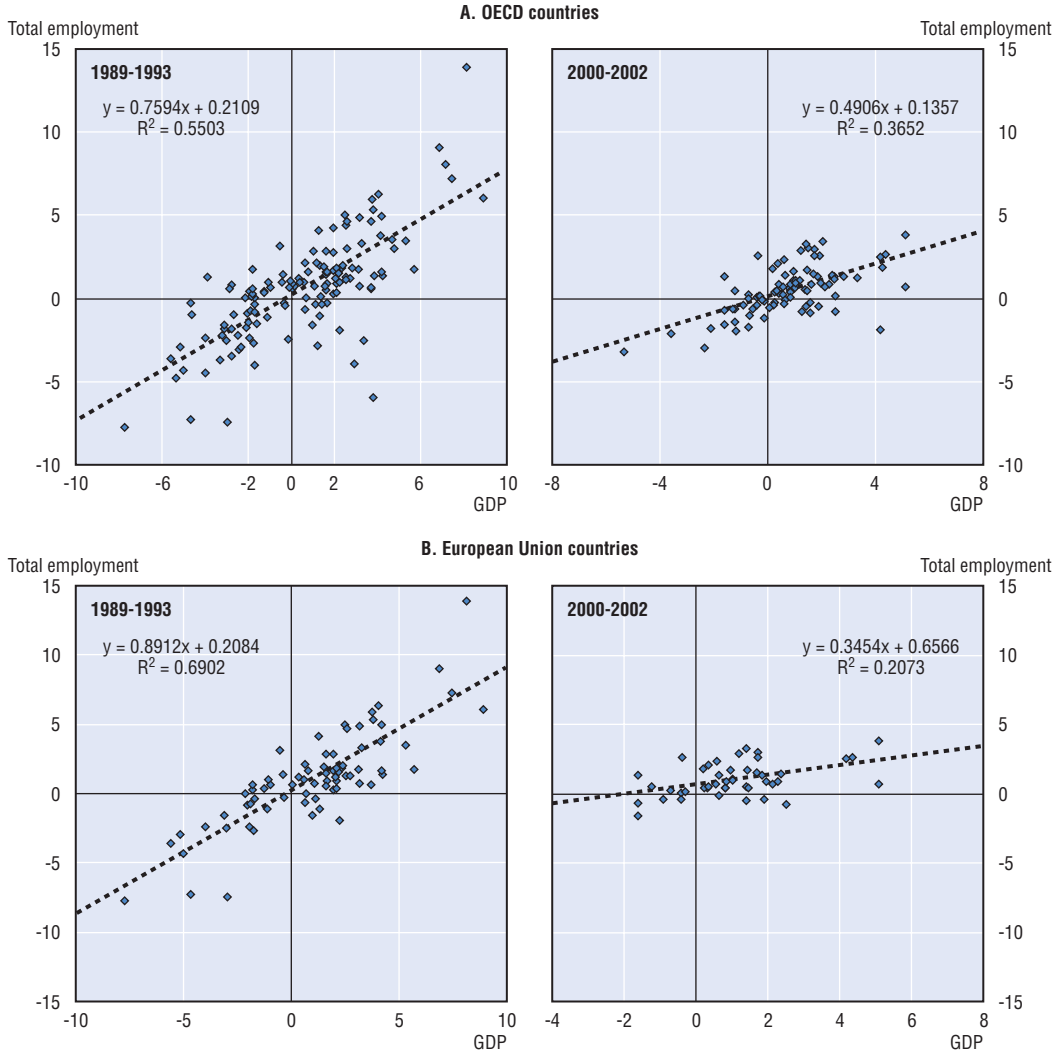
Source: OECD database on Labour Force Statistics (supplemented by *OECD Economic Outlook*, No. 73, April 2003).

with those in other quite recent studies (albeit not recent enough to incorporate data from the current slowdown) concluding that employment has become more, not less, responsive to the economic cycle.[4]

Chart 1.2. **Employment has been more resilient in the current slowdown**

Cyclical variation in employment and GDP: early 1990s compared with the current slowdown, OECD and European Union countries

Percentage deviation of employment and GDP from their respective trends[a, b]



a) Each point in the chart represents a country-year observation of the percentage deviation of employment and GDP from their respective trends.

b) The trends have been established by the Hodrick-Prescott filter imposing identical smoothing factors for total employment and GDP in all countries.

Source: OECD Analytical Database.

B. Progress at raising employment over the past decade

Nearly a decade has passed since the OECD proposed a comprehensive blueprint for labour market reform, the so-called "Jobs Strategy" (OECD, 1994a). Progress in implementing this agenda has been uneven. Nonetheless, the 1990s were a decade of notable policy initiatives, as many countries responded to chronically high unemployment, high inactivity rates among certain groups in the working-age population and other labour market problems by introducing important structural reforms. An assessment of the progress

achieved in raising employment rates and lowering unemployment and better mobilising potential labour supply is thus timely. This sub-section presents such an assessment. The central question posed is the extent to which OECD countries have increased the share of the working-age population that is employed over the course of the past decade, either by lowering unemployment or by increasing participation rates.[5] No attempt is made to identify the contribution of policies to the progress (or lack of progress) in different countries.

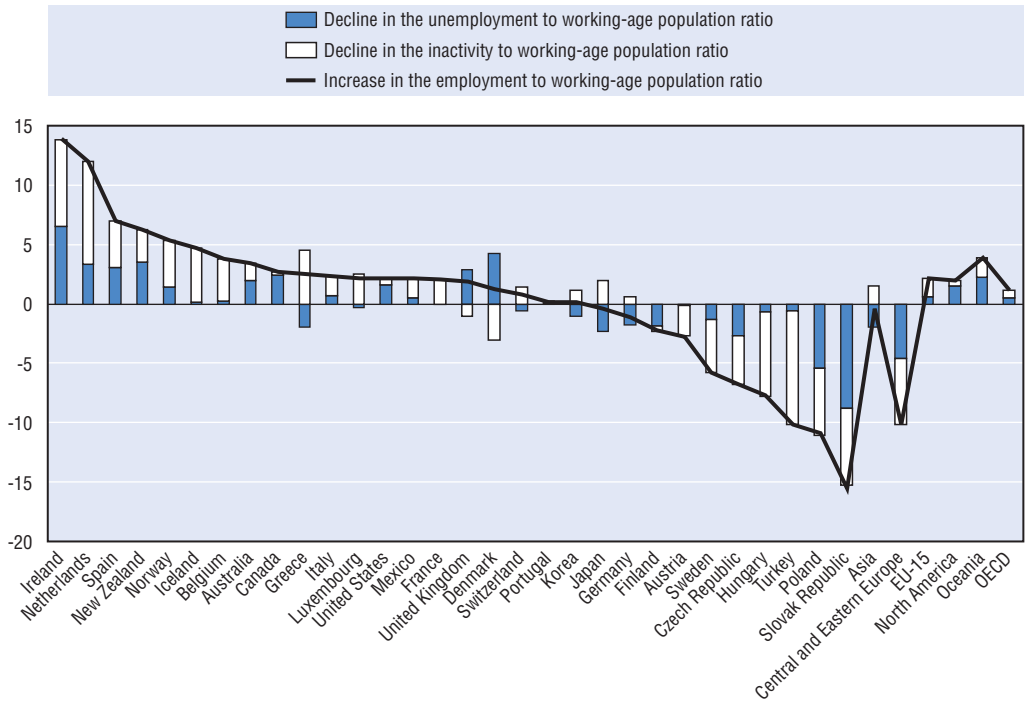
This medium-term analysis emphasises changes in employment performance between 1991 and 2001, the most recent complete business cycle for which labour force data were available at the time this analysis was undertaken.[6] This choice increases the probability that observed changes in employment outcomes are largely structural in nature. Ten years may also represent a sufficiently long period for some of the effects of recent structural reforms to have become evident, although this is unlikely to be the case for those most recently enacted.[7]

Employment improved during the past cycle but this masks major country difference

The employment to population ratio for the OECD area[8] rose by only 1.1 percentage points during 1991-2001 (Chart 1.3). The modest gain in employment for the OECD area as

Chart 1.3. **Reductions in inactivity often contributed most to employment growth**

Contributions of reductions in inactivity and unemployment to employment growth in OECD countries,[a] 1991 2001[b]



OECD: Population-weighted average of all countries shown except the Czech Republic, Hungary, Poland and the Slovak Republic.

a) The increase in the employment to population ratio for persons between the ages of 15 and 64 years is shown as the vertical sum of the decreases in the ratios of unemployment and inactivity to population.

b) 1992-2001 for Hungary and Poland; 1993-2001 for the Czech Republic; 1994-2001 for the Slovak Republic; 1995-2001 for Austria.

Source: OECD database on Labour Force Statistics.

a whole during the past decade left the employment to population ratio at 65.4% for the OECD area as a whole, unemployment at 4.5% (of the working-age population), and the inactivity rate at 30.1% (2001 values). However, these averages hide widely divergent experiences in different OECD countries. Two-thirds of the countries registered an increase in the employment rate, but a few countries registered large decreases (particularly, the CEE countries, Sweden and Turkey).[9] The two countries with the biggest increases were Ireland (13.9 percentage points) and the Netherlands (12 percentage points). Other European countries where the employment rate grew strongly include Spain (which started from a low rate) and Norway (where employment was already high at the beginning of the 1990s). Except for Germany, where the employment rate fell by 1.2 percentage points,[10] the other large West European economies – France, Italy and the United Kingdom – performed quite well with gains around 2 percentage points.

Significant increases in the employment ratio have also been registered outside OECD Europe. In New Zealand, the employment rate rose by 6.2 percentage points, over half of which was due to a strong decline in unemployment. Employment gains were smaller but still substantial in Australia, Canada and the United States, all countries which had relatively high employment rates at the beginning of the 1990s. The employment rate fell by a modest 0.4 percentage points in Japan, where a significant increase in unemployment was largely neutralised by rising participation.

Reductions in unemployment and inactivity contributed to rising employment

The increase in the employment rate achieved by about two-thirds of OECD countries during 1991-2001 usually reflected the combined impact of reductions in both unemployment and inactivity rates (Chart 1.3).[11] However, there is considerable international variation in the relative importance of changes in unemployment or inactivity rates to the overall change in the employment rate. In the European Union, where raising employment rates has become a prominent policy goal, the fall in inactivity (1.8 percentage points) contributed three times as much as the 0.6 percentage-point fall in the unemployment to population ratio to the 2.4 percentage-point rise in the employment rate. Even within the EU area, the numerical contribution of changes in unemployment exceeded those of changes in inactivity rates in four countries (Denmark, Finland, Germany and the United Kingdom), as was also the case in English-speaking countries outside of the EU area, Japan and several CEE countries which experienced steep increases in unemployment.[12]

C. Were the gains widely shared?

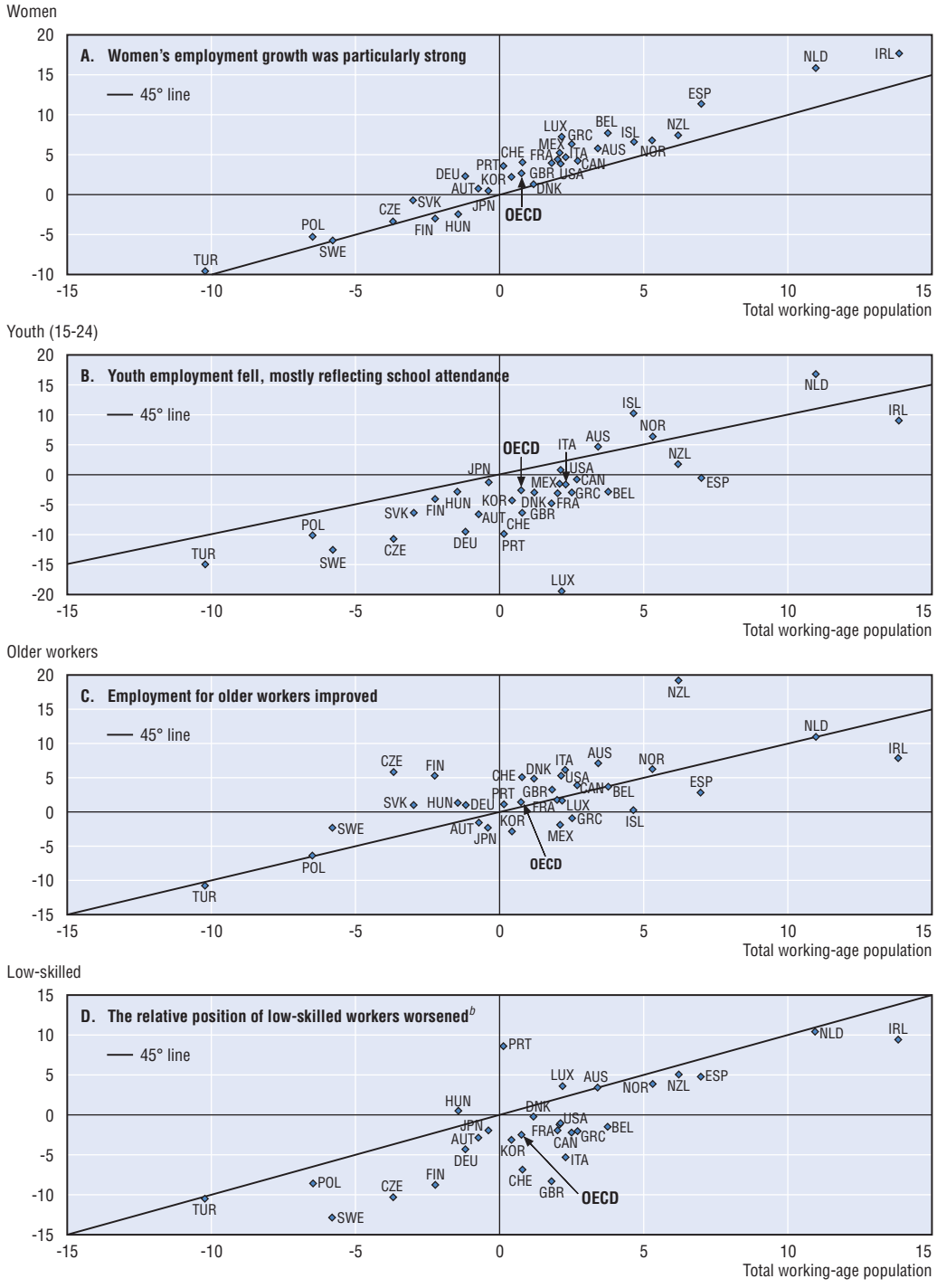
This sub-section looks at the extent to which different workforce groups – particularly groups whose members are often found on the margins of the labour market – have benefited from the increase in aggregate employment over the past ten years. The groups considered are women, youths, older workers and less educated workers; they are not mutually exclusive.[13]

The employment rate of women has tended to improve

In almost all countries, the employment rate rose more (or fell less) during 1991-2001 for women than for men, with this differential averaging 3.7 percentage points (Chart 1.4, Panel A). Employment growth for women outpaced that for men by substantial margins in a number of EU countries, including the three countries with the strongest overall

Chart 1.4. **Employment gains during the past decade were broadly shared**

Percentage-point change in employment/population ratios, 1991 to 2001[a]



OECD: Population-weighted average for the countries shown.

a) 1992-2001 for Hungary and Poland; 1993-2001 for the Czech Republic; 1994-2001 for the Slovak Republic; 1995-2001 for Austria; except that in Panel D; 1991-2000 for the Netherlands; 1994-2001 for the Czech Republic and Greece; 1995-2001 for Korea and Poland; 1996-2001 for Hungary and Iceland; 1997-2001 for Japan and Mexico; 1999-2001 for Luxembourg.

b) Low-skilled corresponds to individuals not having finished upper secondary schooling (ISCED-76).

Source: OECD database on Labour Force Statistics and OECD, *Education at a Glance – OECD Indicators 2002* (for data on low-skilled employment).

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employment performance in the OECD (*i.e.* Ireland, the Netherlands and Spain). Part of the explanation for the strong employment performance of women is that the secular increase in female participation rates continued in most countries, while a secular decrease in male participation may have continued in a considerable number of countries, albeit at a slower pace.[14] As a consequence, the OECD inactivity rate for women fell 2.2 percentage points, while that of men fell by 1.4 percentage points (which largely reflected the cyclical pattern, in which more robust hiring encourages higher participation). Women also tended to benefit more than men in countries where unemployment fell. For the OECD area as a whole, unemployment fell by about 1 percentage point for women, but remained approximately unchanged for men.

Youth employment rates fell, reflecting longer school attendance

The youth employment rate for the OECD area as a whole decreased by almost 3 percentage points during 1991-2001 (Chart 1.4, Panel B). This was in sharp contrast to the overall increase in the employment rate rose by about 1 percentage point. The fall in youth employment is due to a rising rate of inactivity (3.5 percentage points), since unemployment fell strongly for this group in most countries where overall unemployment declined, resulting in an average decline of 0.7 percentage point in the OECD area. These patterns suggest that youths generally have benefited from the improvement in overall labour market conditions and that the tendency for youth employment rates to fall reflects the fact that more youths are staying in school longer. Indeed, the share of youths neither employed nor in education – a better indicator of difficulties in the labour market for this age group than standard unemployment and inactivity rates – has trended downwards during the past two decades (OECD, 2002a).

Employment of older workers increased somewhat…

For the OECD area as a whole, the employment rate for persons aged 55 to 64 years rose by 1.4 percentage points during 1991-2001, slightly outpacing employment growth for the total working-age population (Chart 1.4, Panel C). The rise in older worker employment rates is mostly attributable to the 1.6 percentage-point fall in the inactivity rate for this group, which was larger than the 0.7 figure for the prime-age population and represented a break with the historic trend towards retirement at younger ages.[15] The unemployment rate for the 55-64 age group remained roughly unchanged. The largest increase in employment rates for older workers occurred in New Zealand, where there was a nearly 20 percentage-point reduction in the inactivity rate for persons between the ages of 55 and 64 years, mainly in response to a substantial increase in the retirement age in the national pension system (see Chapter 3).

… but the relative employment position of low-skilled workers continued to deteriorate

Chart 1.4, Panel D shows that the employment rate for persons not having completed upper secondary schooling (hereafter referred to as "low-skilled") fell by 2.4 percentage points, despite the overall rise in employment. The weak employment performance of low-skilled workers reflected a tendency for labour market participation to decline strongly for the low skilled, even where aggregate employment opportunities expanded, consistent with the hypothesis that skill-biased technical change and shifts in international trade patterns reduced the relative demand for low-skilled workers in OECD countries. However, low-skilled workers fared even worse where overall employment was weak, with the

sharpest reductions in the employment rate for low-skilled people occurring in the Czech Republic, Sweden and Turkey.

2. Is the progress sustainable?

This section examines the extent to which *sustainable* progress has been made in improving the overall functioning of labour markets in OECD countries. The assessment begins with a "bottom-line" indicator of structural progress, namely, whether econometric estimates of the "equilibrium" unemployment rate indicate that lower unemployment rates can now be maintained without causing inflation to worsen.[16] Since the OECD's estimates of the NAIRU do, in fact, confirm a tendency for equilibrium unemployment to have fallen during the past decade, attention then turns to whether structural factors can be identified that would account for this apparent progress (and its unevenness across OECD countries). Accordingly, a number of the institutional factors emphasised in research on the determinants of the NAIRU are examined, to check whether they changed in ways that would support an inference that structural progress has occurred.[17] A major theme in this literature is that appropriate policies and institutional arrangements can reduce equilibrium unemployment by improving the *matching* between vacant posts and unemployed individuals.[18] This possibility is analysed here using so-called "Beveridge curves." A second way that structural reforms could have contributed to lowering the NAIRU would be to have improved the *wage-setting environment*, so as to moderate upward pressure on wages and render them more sensitive to market conditions. Accordingly, the evolution of real wages and labour costs over the past decade is analysed. Finally, evidence is presented concerning whether employment growth has become more dynamic in the private business sector.

A. The NAIRU has tended to fall

Table 1.3 presents data on the evolution of equilibrium unemployment rates over the past decade in the 21 countries for which OECD estimates of the NAIRU are available. A broad, but not universal, decreasing trend is evident, with the NAIRU falling in 12 countries, stable in four, and rising in five. Another encouraging development is that progress in lowering the NAIRU tended to be concentrated in countries beginning the 1990s with a relatively high level of equilibrium unemployment. The mean 1991 NAIRU in the 12 countries where it fell over the course of the following decade was 8.4%, compared with 5.3% where the NAIRU was stable and 5.1% where it rose.[19]

Within the Euro area, the fall in the NAIRU was especially large in Ireland and the Netherlands (8 and 3 percentage points, respectively), but was much smaller or nonexistent in France, Germany and Italy. Canada, Denmark and the United Kingdom experienced the largest reductions in equilibrium unemployment among OECD countries outside the Euro area. The fall was also significant, albeit smaller, in Australia and New Zealand. The NAIRU fell slightly in the United States from a relatively low level. Increases in the NAIRU of 1.5 to 2 percentage points were recorded in Finland, Greece, Iceland and Japan.

The estimation of equilibrium unemployment rates raises major conceptual and empirical difficulties (Richardson *et al.*, 2000). Accordingly, the evidence for structural progress would be appreciably stronger if it can be shown that the declines in the estimated NAIRUs coincided with improvements in important determinants of aggregate labour market performance. The following sub-sections investigate whether this is the case.

Table 1.3. **The NAIRU has declined in a majority of countries**

OECD estimates of the structural rate of unemployment[a] in selected countries[b], 1991 and 2001

	1991	2001	1991-2001 change
Falling NAIRU average 1991 = 8.4			
Ireland	14.3	6.4	–7.9
Netherlands	7.1	4.0	–3.1
United Kingdom	8.2	5.5	–2.6
Denmark	7.3	4.9	–2.4
Spain	13.4	11.5	–1.9
Canada	8.8	6.9	–1.9
Belgium	8.8	7.2	–1.6
New Zealand	7.0	5.4	–1.5
Norway	4.9	3.6	–1.4
Portugal	4.7	3.8	–1.0
Australia	6.8	6.2	–0.7
France	9.7	9.3	–0.4
Stable NAIRU average 1991 = 5.3			
United States	5.4	5.1	–0.2
Italy	9.3	9.2	–0.1
Switzerland	1.7	1.8	0.0
Austria	4.8	4.9	0.1
Rising NAIRU average 1991 = 5.1			
Germany	6.7	7.3	0.6
Greece	8.3	9.8	1.5
Japan	2.4	3.9	1.5
Finland	6.8	8.6	1.8
Iceland	1.5	3.5	2.0
Euro zone[c]	**8.6**	**8.3**	**–0.3**
OECD[d]	**6.3**	**6.1**	**–0.2**

a) The structural rate of unemployment is the OECD's estimate of the non-accelerating inflation rate of unemployment (NAIRU), which is estimated using a Kalman-filtering approach that embodies a reduced-form Phillips curve, as described in Richardson *et al.* (2000). The estimated levels of the NAIRU are subject to significant margins of error, but the margin is significantly less than what is obtained using standard univariate filtering techniques, such as the Hodrick-Prescott filter.

b) Countries ordered by 1991-2001 change in the NAIRU.

c) Labour-force weighted average of European countries.

d) Labour-force weighted average of countries shown.

Source: *OECD Economic Outlook*, No. 72, June 2002.

B. Matching of unemployed with jobs shows little improvement

For most countries, the Beveridge curves shifted rightwards until the 1980s, suggesting a growing mismatch between vacancies and those looking for work, as unemployment trended upwards from the lows recorded in the 1960s (see Box 1.1 for an explanation of the Beveridge curve). Chart 1.5 plots national unemployment and vacancy data from 1980 onwards, in order to assess whether OECD countries experienced a turn-around more recently, with their Beveridge Curves moving back to the left.[20] Such a reversal is visible at the beginning or middle of the 1980s for four countries: Canada, the Netherlands, Portugal, and the United States.[21] In New Zealand, Switzerland and Spain, conditions continued to worsen through the 1980s before beginning to improve towards the end of the 1990s. However, no improvement is evident for the majority of the countries shown, nor for the Euro area as a whole. Indeed, the Beveridge curve appears to have continued shifting in an adverse direction in a number of countries, including Austria,

Chart 1.5. **Limited evidence for an improvement in the matching process**

Beveridge curves for the euro area and selected OECD countries, 1980-2001

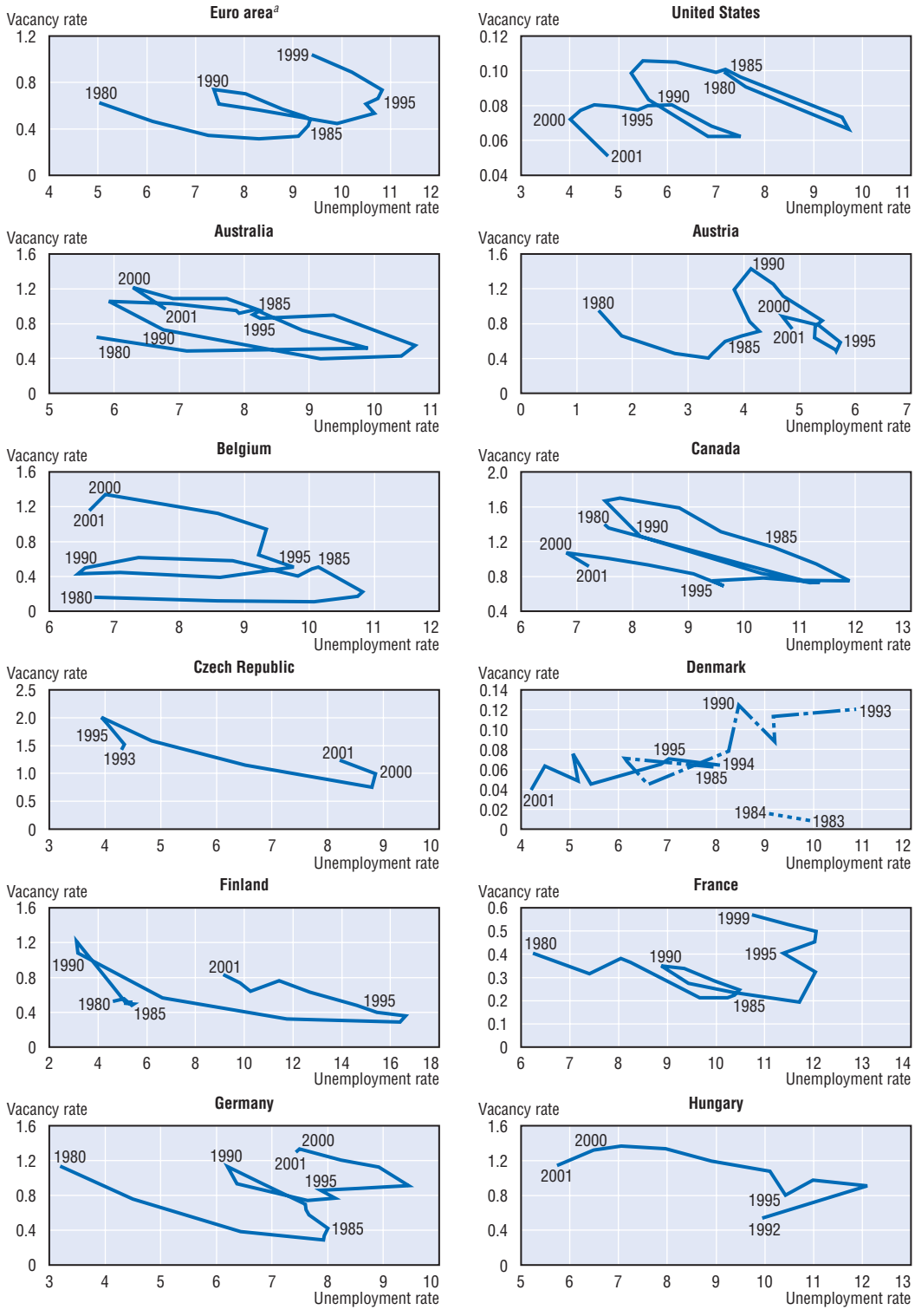

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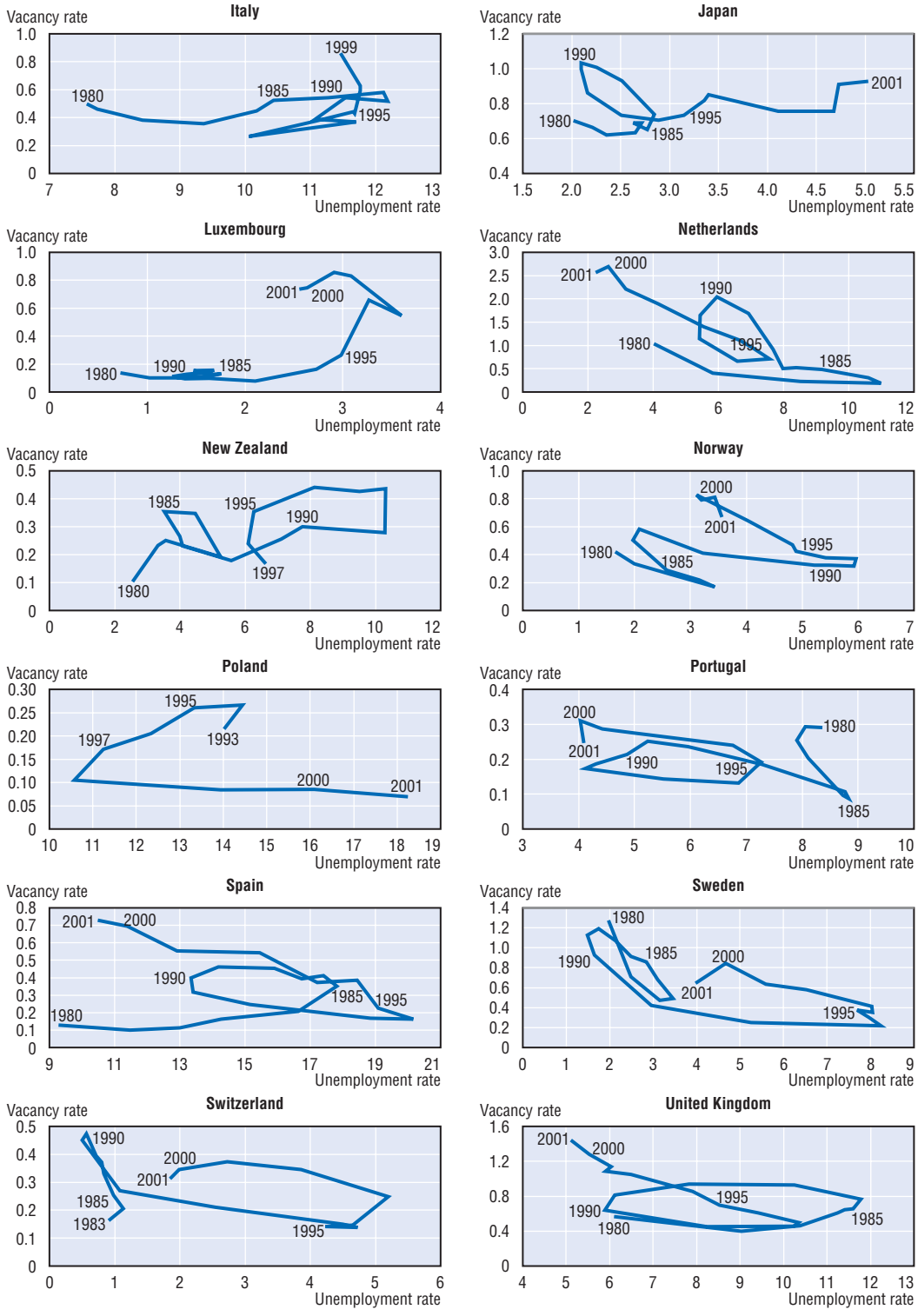
Chart 1.5. **Limited evidence for an improvement in the matching process** *(cont.)*

Beveridge curves for the euro area and selected OECD countries, 1980-2001



a) Population-weighted average of the euro area countries shown.

Source: OECD Analytical Database; Secretariat calculations based on data provided by the National Labour Market Authority for Denmark; by the *Istituto per lo Sviluppo della FOrmazione professionale dei Lavoratori* (ISFOL) for Italy; and Nickell *et al.* (2003) for France.

Box 1.1. **What is the Beveridge curve?**

The reallocation of workers normally takes place with the coexistence of unemployment and vacancies, reflecting the presence of frictions in the labour market and the fact that it takes time to achieve a satisfactory worker-job match. The plot of unemployment and vacancies is known as the Beveridge curve or U-V curve (see Blanchard and Diamond, 1989; and Nickell *et al*., 2003). The position of the Beveridge curve in U-V space influences the long-run equilibrium level of unemployment: a curve that lies far to the left (*i.e*. close to the vertical axis) indicates that unemployed workers are easily matched to vacant jobs, consistent with a low NAIRU, while a curve far to the right indicates severe mismatch and high equilibrium unemployment. However, limitations in the availability and quality of data on vacancies present considerable difficulties for conducting empirical analysis of these patterns.[a]

As *unemployment* and vacancies change with fluctuations in aggregate activity, the position on the curve can indicate where the economy is in the business cycle. Recessions, for example, are generally times of high unemployment and few job vacancies, corresponding to points on the lower right end of the curve, while in expansions the opposite is true, corresponding to points on the higher left end. However, the Beveridge curve is not a straight diagonal line, but rather a loop that is traced out by the counter-clockwise movements of unemployment and vacancies over the business cycle, due to the fact that cyclical movements of unemployment typically lags those of vacancies.

The Beveridge curve can also change its position in response to structural factors. A shift of the curve to the right would indicate an increase in equilibrium unemployment, while a movement to the left implies a fall in the equilibrium unemployment rate. Visual inspection of U-V pairs over the course of the past two decades, as shown in Chart 1.5, provides a first indication of whether the Beveridge curves have shifted. However, more formal statistical analysis is required to verify impressions based on "eye-balling" the data. Following Nickell *et al*. (2003), shifts in the Beveridge curve can be captured by the trend terms in a regression of the form:

$$\ln u_t \quad 0 \quad 1 \ln u_t \; 1 \quad 2 \ln v_t \quad 3t \quad 4t^2 \quad 5t^3$$

where u is the unemployment rate, v is the vacancy rate and t is a time trend. For example, a visual impression that the Beveridge curve has shifted to the left (right) would be confirmed if the regression estimates indicate a declining (increasing) time trend. Although the results are not reported here, this method was used to verify statements in the text distinguishing countries on the basis of movements of the U-V locus over the past two decades.

a) Data on vacancies are not available for a considerable number of OECD countries and raise difficult issues of comparability when available (see also OECD 2001a). In the majority of the countries included in Chart 1.5, the vacancy data are based on the number of unfilled vacancies listed with public employment offices. However, Canada, the United States and Italy measure vacancies by the number of "help-wanted" advertisements that employers place in leading newspapers in a sample of large cities. Data for France refer to a labour shortage index.

Belgium, Germany, Japan, and Norway. Other countries are more difficult to classify, since it is not evident that cyclical and structural movements can be differentiated.

The simple regression method described in Box 1.1 suggests that in a modest number of OECD countries the matching process between the unemployed and vacancies became

more efficient recently, with the timing of this improvement varying considerably across the countries considered. It is also plausible that these improvement represent, at least in part, the fruits of structural reforms (see Box 1.2 for a summary of the ways in which certain policies may be expected to influence the position of the Beveridge curve). By making out-of-work individuals more employable, these reforms help reduce labour shortages and thus decrease unemployment, without creating inflationary pressures.

Box 1.2. **What factors shift the Beveridge curve?**

- The *benefit system* directly affects the readiness of the unemployed to fill vacancies. Its most important aspects are the generosity and duration of benefits, the coverage, the strictness with which the system is operated, and the extent to which unemployed individuals receive adequate counselling and support from public employment services (see Nickell, 1997a; Nickell and Layard, 1997b; Nickell and Van Ours, 2000; Lalive *et al.*, 2002; and Chapter 4.
- *Active labour market policies* (ALMPs) may also facilitate the matching between unemployed and vacancies. The purpose of ALMPs is to provide active assistance to the unemployed which will improve their chances of obtaining work (see Chapter 4). For example, the public employment service can help to bring job seekers together with employers posting suitable vacancies ("job brokerage"). Existing vacancies may require skills different from those that can be provided by the unemployed, necessitating training. Skills mismatch may be a particular problem for the long-term unemployed, whose generic skills may have deteriorated from lack of use and/or specific job skills may not be transferable to prospective employers. A similar mismatch may affect young people leaving school without the skills required of them by the labour market.
- *Employment protection legislation* (EPL), which consists of the regulations determining the level of employment security, including rules for fixed-term contracts, temporary placement agencies and other forms of temporary employment, can affect matching efficiency. Strict EPL makes firms more cautious about filling vacancies which slows the speed at which the unemployed move into work, reducing the efficiency of job matching. Another complication is that some countries have retained strict EPL for regular employees while relaxing rules for temporary contracts. This combination has led to a rapid expansion of temporary jobs in some countries, which generates increased flows of new vacancies and newly unemployed workers, as temporary positions are regularly re-staffed (OECD, 2002a; Boeri *et al.*, 2000; Blanchard and Giavazzi, 2000; Saint-Paul, 1999).
- *Limited geographical mobility* constitutes another barrier to matching job seekers with available jobs (Oswald, 1997). Locational preferences, home ownership or family responsibilities constrain the areas where many workers are prepared to work. This immobility explains the co-existence, often for long periods of time, of labour shortages in some regions of a country and high unemployment rates in others.

C. Wage setting has reflected greater restraint

The previous sub-section presented some evidence that structural reforms may have helped improve the matching between the unemployed and vacancies over the past decade in a few OECD countries, and thereby contribute to a better labour market performance. Another factor that may have lowered equilibrium unemployment rates is increased restraint in wage setting, particularly in countries where real wage growth previously had outpaced productivity growth. The institutional and policy factors that are likely to shift the Beveridge curve are also likely to have an impact on wage-setting behaviour, either directly or indirectly (*i.e.* through their effect on unemployment). Additionally, some features of wage-setting institutions affect wages directly, without having a direct effect on the matching process. These include unionisation, co-ordination in wage bargaining, minimum wages, labour taxation and the vigour of product market competition (see Box 1.3). This sub-section analyses data on real wage growth, productivity and unit labour costs, in order to assess whether diminished wage pressures in countries where the wage share had risen to very high levels have brought down the structural rate of unemployment.[22]

Box 1.3. **What influences wage setting?**

The institutional factors that improve the matching between job seekers and vacancies (Box 1.2) are also likely to influence wages. In addition to these policies, the wage-setting environment has an important role in shaping wage growth and therefore labour market performance.

- *Union bargaining power* is expected to exert upward pressure on wages, raising equilibrium unemployment. (Layard *et al.*, 1991). This effect is likely to be strengthened if monopoly power is present in product markets which leads to a significant price mark-up on production costs (Nicoletti *et al.*, 2001). However, the upward wage pressure exerted by unions may be offset where wage bargaining is *co-ordinated* across sectors or firms. Wage negotiations may be considered to be co-ordinated if the parties take into account the consequences of any wage settlement on the rest of the economy. Co-ordination can be achieved through centralization of bargaining at the national level, but centralization is not a necessary condition. Co-ordination can also be achieved where wages are negotiated at the industry level or enterprise level, through the presence of co-ordinating institutions, such as national trade union congresses and employers' federations, which assist bargainers to act in concert (Ochel, 2000).
- Union power can also raise equilibrium unemployment if it compresses relative wages too much, as can *statutory minimum wages* in cases where they are set too high. For example, a uniform national pay scale may result in high unemployment in regions where productivity lags. Allowing for decentralised wage bargaining might reduce the large regional imbalances that are characteristic of many European countries, since setting wages according to productivity would generate incentives for job creation in lagging regions and for unemployed workers to migrate to high-wage regions (OECD, 1997). Similar problems will arise if wage differentials by skill level are compressed to the point that employers are reluctant to hire the least skilled workers. Special minimum wages for low-productivity workers, such as school leavers, can minimize this latter problem (OECD, 1998a; Dolado *et al.*, 1996).

Box 1.3. **What influences wage setting?** *(cont.)*

- *Taxes on labour* may also raise equilibrium unemployment. The taxes that most matter for employment are those that form a "wedge" between the real product wage (labour costs per employee normalised on the output price) and the real consumption wage (after-tax pay normalised on the consumer price index), namely, payroll taxes, income taxes and consumption taxes. Economic theory indicates that the impact of such a tax wedge depends on the extent to which the tax is shifted onto wages which, in turn, depend on many, potentially offsetting factors (*e.g.* whether there is a minimum wage and the organisation of wage bargaining). The empirical literature studying the impact of labour taxation on equilibrium unemployment has reported mixed results. However, several recent studies suggest that these taxes raise unemployment, with the size of this effect depending on national wage-setting institutions: Daveri and Tabellini (2000) and Nickell *et al.* (2003) find that employment taxes raise equilibrium unemployment, but that this effect is smaller in economies with co-ordinated wage bargaining.[a] Put somewhat differently, labour taxation may have had a particularly harmful effect on unemployment in Belgium, France, Germany, Italy, the Netherlands (before the Wassenaar agreement)[b] and Spain, while taxation had less effect in raising unemployment in the Nordic countries, such as Finland, Norway and Sweden, where wage bargaining was co-ordinated so as to reduce the adverse impact on employment.
- The concept of *real wage resistance* is useful for understanding the impact of wage-bargaining structures on the equilibrium rate of unemployment and its evolution. The idea is that workers may attempt to sustain recent rates of real wage growth, even when the rate consistent with stable employment drops due to a negative shock (*e.g.* a rise in the price of oil, a slowdown of the growth of productivity, a rise in real interest rates, an increase in the tax wedge or a worsening of the terms of trade). In the presence of real wage resistance, real labour costs rise in the aftermath of these shocks because employers are not able to shift any of the burden onto employees by reducing the rate of wage growth. This may be particularly likely to occur in highly unionised environments or where wages are automatically linked with a retail price index. In some theoretical models, real wage resistance only has a *temporary* effect on unemployment, because the initial increase in unemployment eventually pushes wages down enough that labour costs return to their original level. However, Mortensen and Pissarides (1999) show that an increase in payroll taxes can lead to a *permanent* increase in equilibrium unemployment in a general equilibrium model of bilateral search.

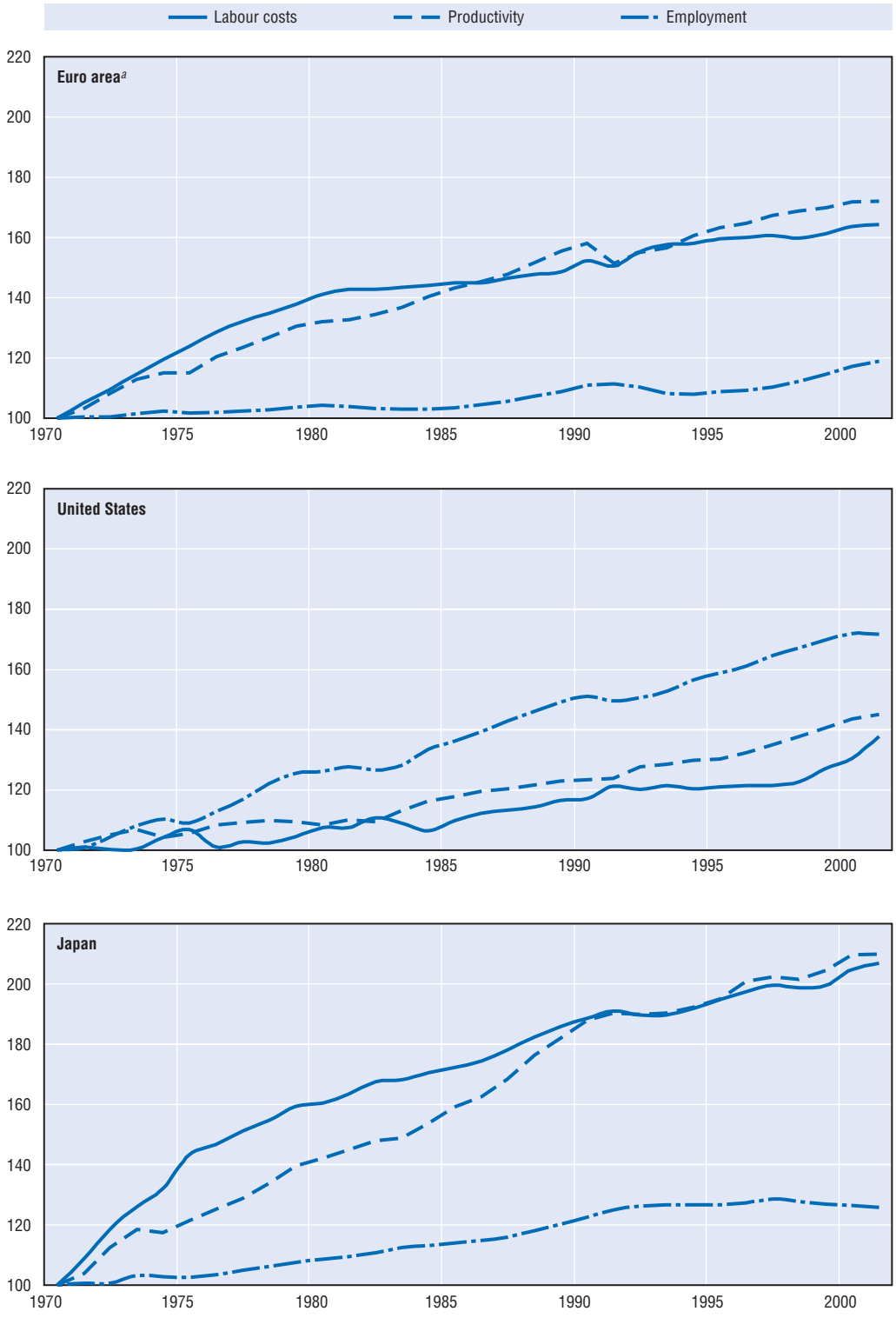
a) The Nickell *et al.* (2003) estimates suggests that a 10 percentage point increase in the employment tax rate leads to around a 1.5 percentage point rise in unemployment in the long run at average levels of co-ordination. These recent findings represent a turnaround from previous research by Nickell and a range of co-authors, where the effects of employment taxes were found to be non-existent or fairly slight (see Bean *et al.*, 1986; Layard *et al.*, 1991; and Nickell and Layard, 1999).

b) Under the tripartite Wassenaar agreement, which was signed in 1982, Dutch unions gave up price indexation of wages and committed themselves to moderate future wage claims in exchange for a series of commitments by the employers' federation and the government, including working-time reductions and improved conditions for part-time workers. Nickell and Van Ours (2000) discuss the so-called "Dutch miracle" after Wassenaar.

Real wage growth in the business sector has been moderate in relation to productivity growth during the 1990s, as reflected in a falling wage share in a majority of countries for which data are available (Annex Table 1.A1.1). The decline in the wage

Chart 1.6. **Productivity has grown more rapidly than real labour costs, favouring employment growth**

Growth in real labour costs, labour productivity and employment, 1970-2001
Index 1970 = 100



a) The European figures have been adjusted to remove the impact of German reunification.

Source: *OECD Economic Outlook*, No. 72, June 2002.

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share between 1990 and 2002 was especially large in Finland and Korea, where it exceeded 10 percentage points, and also sizeable in Australia, France, Ireland, Italy, Sweden. Declines in the wage share were more pronounced in the first half of the 1990s, when high levels of labour market slack reinforced the effect of policy initiatives to restrain wage growth. As labour markets tightened in the second half of the decade, the picture became more mixed, with the wage share rising in nearly as many countries as where it fell. Norway and the United Kingdom experienced particularly sharp increases in the wage share between 1995 and 2002 (11 and 8 percentage points, respectively).

From the standpoint of economic efficiency, real wage restraint is desirable only if real wages have risen faster than productivity in the past, such that excessive wage levels have become a barrier to job creation. The data presented in Annex Table 1.A1.1 show that wage shares rose sharply in many OECD countries during the 1970s (with the notable exception of the United States), but the wage share reversed course and began to fall during the 1980s in many of these countries.[23] However, wages are only one component of *total real labour cost* per employee. If the share of non-wage costs in total compensation should increase, trends in the wage share will overstate the extent of wage restraint. Chart 1.6 shows that total real labour costs outpaced gains in labour productivity during the 1970s in the Euro area and Japan, but that productivity growth caught up with labour costs during the 1980s and even moved ahead of labour costs during the 1990s in the Euro area. By contrast, labour productivity growth outpaced the growth in total labour costs in the United States throughout the past two decades, perhaps contributing to the relatively stronger employment growth in that country, but also to the relative stagnation in compensation levels (Mishel *et al.*, 2003). Labour costs (and wage) growth accelerated markedly in the United States after 1995, in marked contrast to the deceleration observed in the Euro area. The recent shift toward slower growth in real labour costs was also quite pronounced in Japan, Korea and Turkey (see Annex Table 1.A1.2).

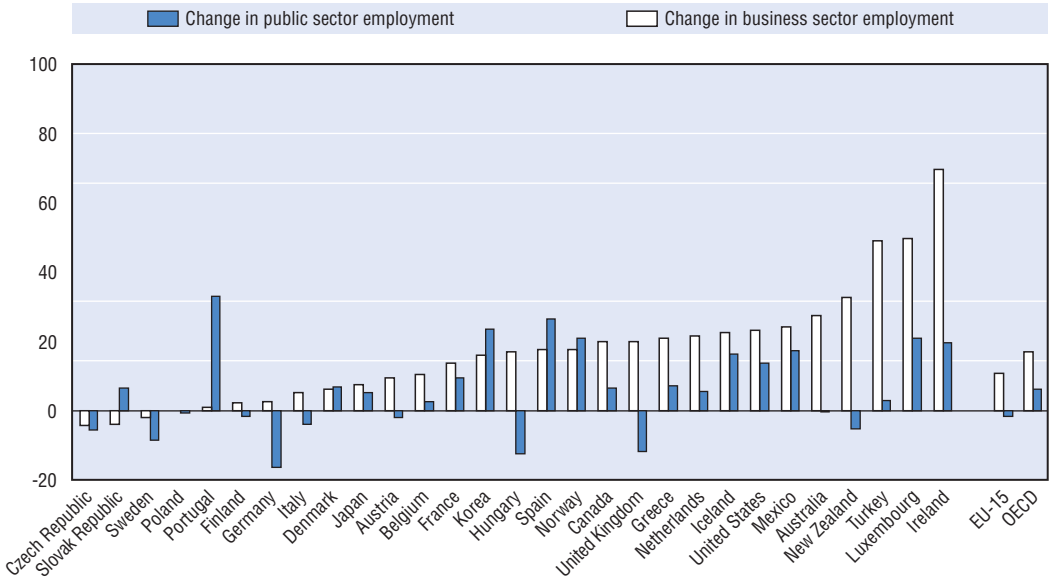
D. Increased dynamism for private sector employment growth

If wage setting has become more responsive to market conditions, this change should be particularly important for facilitating employment growth in the business sector. Indeed, the diagnosis of the causes of high unemployment that was put forward in the *OECD Jobs Study* (OECD, 1994b) emphasised the fact that net job growth in the business sector had been weak, or even negative, in a significant number of OECD countries in the 1970s and 1980s. Chart 1.7 shows that the 1990s were very different, with most of the employment gains having occurred in the private sector in the majority of OECD countries. This was the case in most EU countries, where the contrast with previous decades (particularly the 1970s) is striking.[24] Even as employment growth in the private sector has been more robust over the past decade, significant reductions in public employment have occurred in several European countries, including Germany, Hungary, Sweden and the United Kingdom. Private sector employment growth was also typically stronger than its public sector counterpart outside of Europe, although the break with previous decades tended to be less pronounced.

Chart 1.7. **Business sector employment shows dynamism**

Total employment growth in the public and private sectors, 1991-2001[a, b]

Percentage change



OECD: Population-weighted average of countries shown.

a) Countries in ascending order by growth in business sector employment.

b) 1993-2001 for the Czech Republic and Poland; 1994-2001 for Hungary and the Slovak Republic.

Source: *OECD Economic Outlook*, No. 72, June 2002.

E. Overall assessment of structural progress

The evidence considered in this section is somewhat mixed, but overall suggests that an important share of the improvement in labour market performance over the past decade is structural and, hence, potentially sustainable. The strongest evidence of structural progress is provided by the tendency for estimates of the NAIRU to fall, as well as the concordance of this trend with the evidence that the upward pressure on wages has eased and job growth in the private business sector has become more dynamic. By contrast, the analysis of the Beveridge curves provided less support for structural progress, suggesting that the matching of job seekers to job vacancies has become more efficient in only a few countries (although the problematic nature of job vacancies data should be born in mind when weighing this evidence).

3. More and better jobs?

Has the improvement in employment performance documented above been accompanied by similar progress with improving job quality? No consensus exists on this question. Some analysts have emphasised that the tight labour markets of the late 1990s were good for job quality and were especially beneficial for less advantaged groups in the labour force (Mishel *et al.*, 2003), but others have raised concerns that the job-rich growth achieved in some countries during the 1990s was characterised by a proliferation of "low-quality" jobs (Gregg and Wadsworth, 2000). In order to shed light on this question, this section assembles evidence on diverse aspects of job quality and how they evolved during the past decade: the incidence of low-paid employment and overall earnings inequality;

the incidence of dangerous and high-stress jobs; the incidence of part-time and temporary work; and the extent of employment insecurity.

A. Do new jobs pay well?

The number of high-paid jobs has grown relatively rapidly…

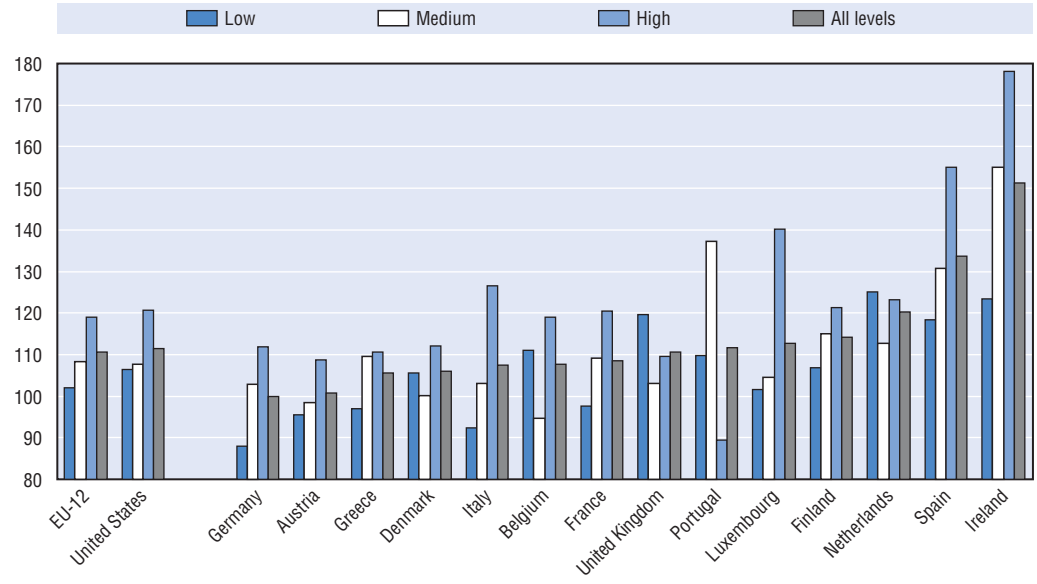
Contrary to the common impression that recent job growth has been concentrated in low-paying service jobs, employment has tended to grow more rapidly in industries and occupations that pay relatively well, than in industries and occupations with average or below-average wages. This pattern holds for both the EU countries as a group and the United States (Chart 1.8).[25] Keating (2003) finds a similar pattern in Australia, where full-time employment grew strongly in the 1990s in the most highly skilled occupations, and fell in the middle and lower skilled occupations.[26] However, several EU countries deviate somewhat from this general pattern. In Portugal, employment growth over the past decade was the strongest for the medium-paid category and employment in the high-paid category fell, while in the Netherlands and the United Kingdom job creation during the past decade has been characterised by relatively strong growth in low-paying jobs.

There is no evident relationship between the strength of overall employment growth in a country and the share of low-paid jobs in employment growth. In particular, job growth

Chart 1.8. **Growth in high-paid jobs has been relatively strong**

Employment growth by wage level[a] in Europe and the United States, 1993-2001[b]

Index (1993 = 100)



a) For each country, jobs (*i.e.* employment in 76 industry/occupation cells) are ranked on the basis of average hourly earnings in 1996 and then placed into three groups of equal size in terms of employment shares. The growth in employment in the same jobs at each level is then calculated.

b) The EU-12 average excludes Austria and Finland; 1995-2001 for Austria; 1997-2001 for Finland; 1993-1999 for the United States.

Source: Secretariat calculations based on the European Union Labour Force Survey and the European Community Household Panel for EU countries and on data from the Current Population Survey (Outgoing Rotation Group file) for the United States.

was relatively strong in high-paying industries and occupations in the United States and the two EU countries with the fastest employment growth, Ireland and Spain. These findings are confirmed by macroeconomic analysis of employment and productivity growth (see Box 1.4).

... but earnings inequality has also tended to increase

Neither the evidence on the sectoral and occupational mix of recent job growth nor the evidence on recent productivity growth confirms fears that structural policies raising employment rates resulted principally in the creation of low-pay/low-productivity jobs. Nonetheless, it is still possible that policies designed to increase labour market "flexibility" – including flexibility in setting relative wages – may have caused earnings inequality to grow along with employment. Recent trends in overall earnings distributions provide some support

Box 1.4. **Employment and productivity growth: a macroeconomic trade-off?**

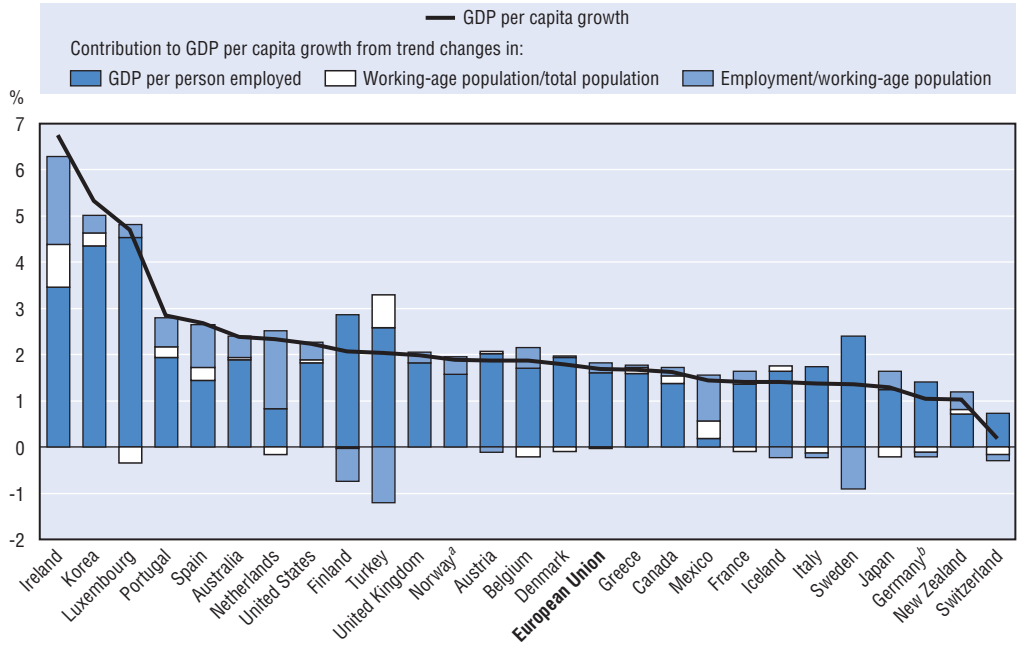
Some of the policy reforms intended to increase employment rates (*e.g.* those advocated in the OECD, 1994a) influence labour supply and demand, and wage bargaining in ways that may tend to lower average wages or increase wage inequality. For example, activation measures for persons on unemployment and other benefits are intended to increase aggregate labour supply. These and other supply-side measures will tend to depress average wages by shifting the economy down the labour demand curve, unless they are accompanied by a compensating rightward shift of the labour demand curve. Since labour force entrants mobilised by these policies will tend to be relatively low skilled, wage inequality may also increase as many in this group will become employed at a wage substantially below the mean wage, at least initially. Complementary reforms intended to assure adequate demand could reinforce these impacts on the wage structure. For example, decentralisation of wage bargaining and trimming back of high minimum wages may tend to lower wages, at least in the lower ranges of the earnings distribution. Similarly, relaxing employment protection legislation and regulations limiting product market competition may encourage expansion of low-productivity/low-pay jobs in services (*e.g.* in retail trade, lodging and food services). However, offsetting effects may also be in play. For example, greater flexibility of labour and product markets could stimulate innovation and productivity growth, creating the economic conditions for increasing wages and living standards (Nicoletti *et al.*, 2001).

Chart 1.9 shows that high employment growth and strong growth in labour productivity were compatible during the past decade, as illustrated by Ireland. Nonetheless, the cross-country correlation between the increase in the employment to population ratio during the 1990s and the increase in labour productivity is weakly negative, suggesting that a weak trade-off may exist between gains in employment and productivity.

There may be even less of a trade-off between raising employment rates and technological progress, as proxied by multi-factor productivity (MFP) growth. The data presented in Annex Table 1.A1.3 show that Australia, Ireland, New Zealand and Norway all experienced simultaneous accelerations in employment growth and MFP in the 1990s. However, MFP growth slowed in a similar number of countries where employment growth accelerated.

Chart 1.9. **Rising employment is compatible with strong productivity growth**

Trend series, average annual percentage change, 1990-2000



a) Mainland only.
b) 1991-2000.

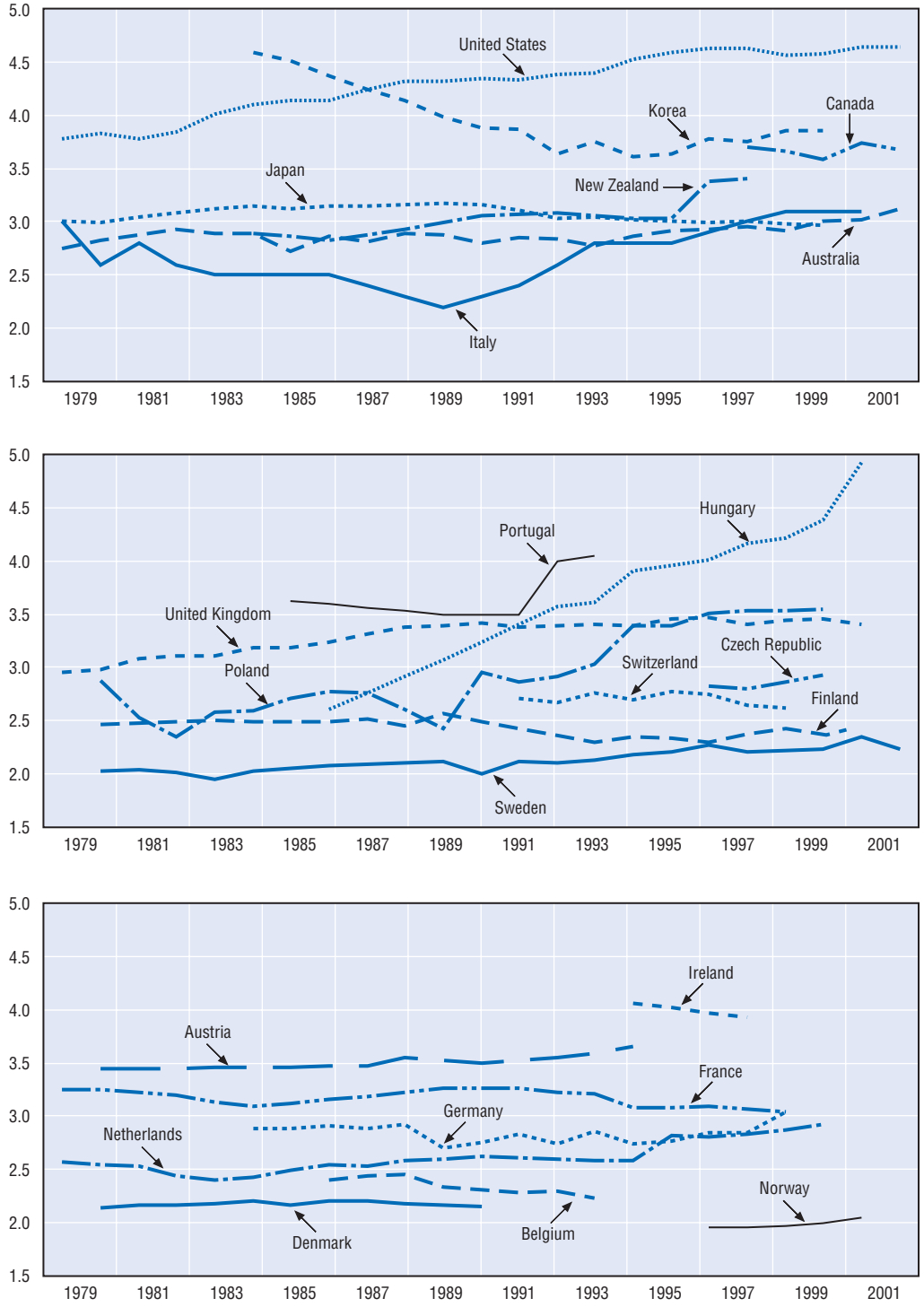
Source: OECD (2003), *The Sources of Economic Growth in OECD countries*, Paris.

for this argument in some countries (Chart 1.10). For example, wage dispersion has increased steadily since the 1980s in the United Kingdom, where wage setting became considerably more decentralised and market driven over the past two decades. Similarly, wage dispersion has increased strongly over the past two decades in the United States, despite starting from an already high level, and more recently (albeit from a lower initial level) in Central European economies. Earnings inequality has also tended to increase in Australia and New Zealand, and in the Netherlands, albeit only since the mid-1990s. On the other hand, wage inequality remained roughly stable, and often quite low, in many EU countries and Japan.

An increase in overall earnings dispersion probably raises greater social concerns if it is associated with an increase in the share of the workforce earning substantially less than does a typical worker. Data on the proportion of workers in low-paid employment (defined as earning less than two-thirds of the median wage) suggest that the incidence of low pay has shown, at most, a weak tendency to rise during the past decade (Annex Chart 1.A1.1). The incidence of low-paid employment increased strongly in the United States and the United Kingdom in the 1980s, but tended to stabilise more recently – even showing some slight reversal during the second half of the 1990s, as wages rose in response to very tight labour markets. The incidence of low pay also rose in the Netherlands and in several Central European economies. For the latter, the rise probably reflected the continuing transition from the compressed wage structures of the central planning era to a market-driven wage structure. The incidence of low-paid employment tended to fall in Japan and Germany, which also experienced rather weak employment growth, while not showing any clear trend in the other OECD countries for which data are available.

Chart 1.10. **Earnings inequality has tended to increase in some countries**

Trends in wage rate dispersion,[a] 1979-2001[b]



a) D9/D1 ratio, defined as the ratio of gross wage rates at the breakpoint between the ninth and the tenth deciles and the breakpoint between the first and second deciles, except that the data for France and Italy refer to net wages.

b) The data have been interpolated for missing years for Austria, Canada, Finland, Hungary, Ireland, New Zealand and Portugal.

Source: OECD database on Earnings.

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To conclude, there is some evidence to support the view that policies and institutions that facilitated strong growth in employment have been accompanied by a tendency for wage inequality to increase. However, it is less clear that the incidence of low-paid employment has risen and it is not the case that the rise in employment has happened mainly in low-paying occupations and industries, or has been detrimental to productivity growth. Furthermore, the welfare implications of increases in wage inequality will be less controversial to the extent that they are associated with increased employment opportunities for low-skill individuals and do not result in a corresponding widening of income inequality.

B. Long hours and headaches: some indicators of working conditions

In the past few years, a renewed interest in working conditions has emerged. This includes concerns that changes in work practices, more flexible work arrangements, atypical contracts and work up-skilling may be degrading certain aspects of the quality of working life (Green *et al*., 2002; and Green, 2002). In order to investigate changes in working conditions over the past decade, this section analyses data from the European Survey of Working Conditions (ESWC) for the 15 EU countries in 1990, 1995 and 2000. In the ESWC, workers are asked about various aspects of their work environment, including the nature of the tasks performed, health problems and the degree of job autonomy. These and similar "subjective" indicators of working conditions provide a portrait of how workers' perceptions of their jobs evolved during the past decade, but differences in responses over time or across workforce groups or countries may not represent real differences in objective conditions.

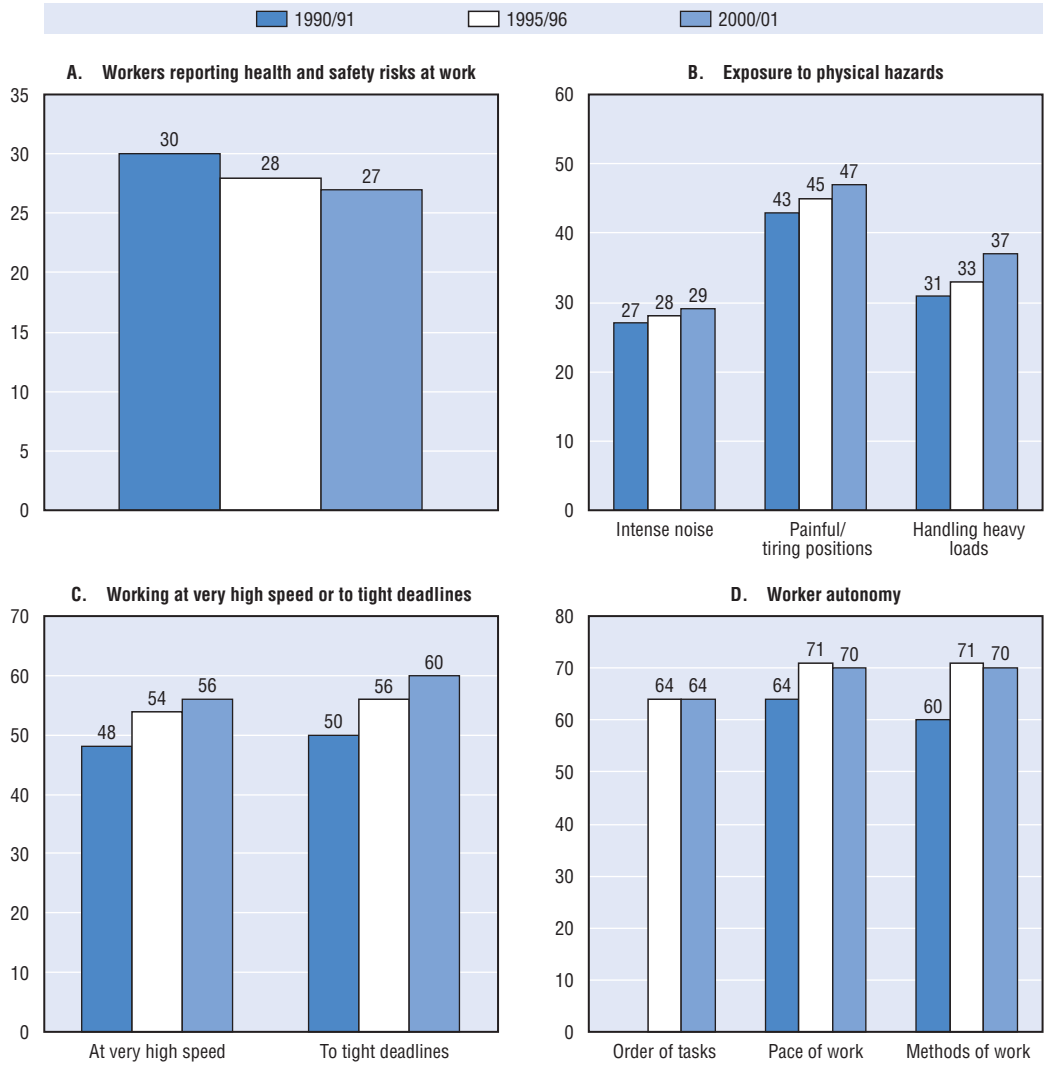
Some work-related health problems such as physical hazards and stress are on the rise…

The ESWC data provide a mixed picture of how health risks at work evolved during the past decade. When asked directly, a declining share of workers reported that their jobs posed a risk to their health or safety: the share reporting exposure to such risks fell about 3 percentage points between 1990 and 2000 (Chart 1.11, Panel A). However, workers' responses to separate and more detailed questions about specific hazardous conditions or health problems related to work suggested a worsening situation (Chart 1.11, Panel B).[27] Similarly, increasing numbers of workers report work-related health problems, both overall and with respect to a number of specific conditions including headaches, backaches, muscular pains in the neck and shoulders, overall fatigue and stress. Finally, 42% of the workers consider their jobs as non-sustainable, stating that they do not think they will be able to or want to do the same job when they are 60 years old.

The nature of the tasks carried out on the job also influences the quality of working life. For example, if a job involves frequent repetition of the same short tasks, working at high speed, respecting tight deadlines or working long hours, high stress levels may result. Again, the ESWC data provide a mixed picture of how these aspects of work have evolved. In 2000, 31% of workers reported performing repetitive movements on a continuous basis, slightly lower than in 1995. In contrast, work intensity appears to have increased during the past decade: in 2000, 56% of respondents said that they worked at "very high speed," up from 48% in 1990, and 60% said that they were working to "tight deadlines," up 10 percentage points (Chart 1.11, Panel C). On a more positive note, workers also reported increased autonomy on their jobs (Chart 1.11, Panel D).

Chart 1.11. **Physical hazards are on the rise**

Selected working conditions in Europe,[a] 1990-2001



a) Population-weighted averages for Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.

Source: European Survey on Working Conditions, waves 1 to 3 (1990/91, 1995/96 and 2000).

… and a growing number of individuals work very long hours in some countries

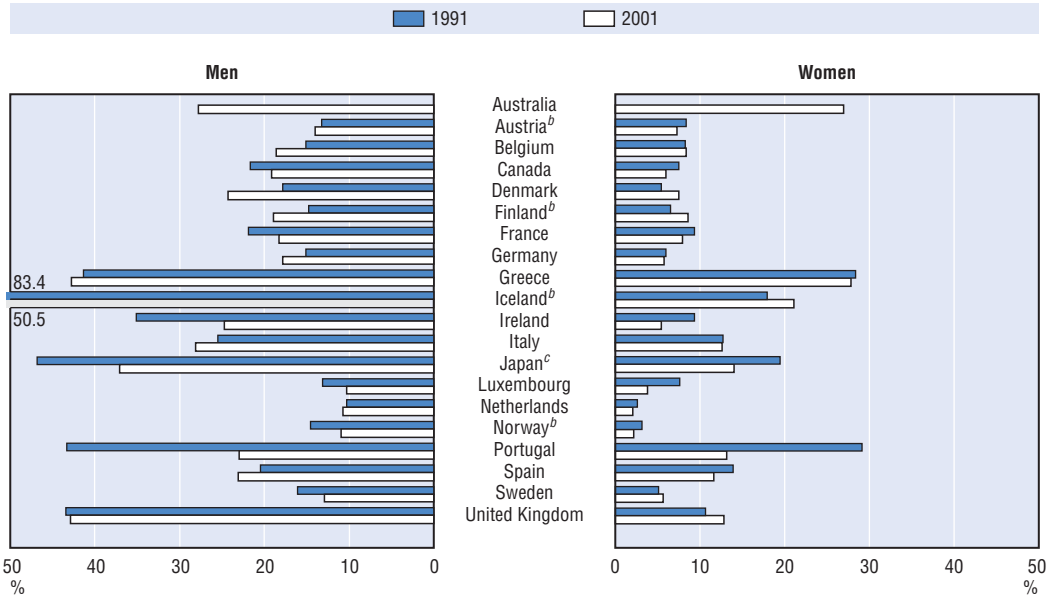
Long hours of work can be onerous and may place a worker's health at risk or interfere with family commitments (see Box 1.5). While there has been a century long trend towards a shorter workweek, this historic trend has slowed in recent decades and appears to have stopped in a few countries (OECD, 1998a). The most typical weekly schedule is around 38 hours, but the proportion of individuals working more than 45 hours per week is quite large, exceeding 40% of working men in Greece, Iceland, and the United Kingdom (Chart 1.12). The share of men working very long hours appears to have increased over the past decade in nearly half of the OECD countries for which data are available. The largest increases in the share of men working 45 or more hours per week occurred in Iceland, Denmark, Finland and

Belgium. Working very long hours is a little less frequent for women than for men. However, the share of women working very long hours also increased over the past decade in some countries including, notably, Denmark, Finland, Iceland and the United Kingdom.

To conclude, although working conditions overall may seem to have improved slightly over the past decade, some hazards or stress-related illnesses are reported to be more common now than they were in 1990. The nature of tasks carried out, another indicator of job quality, also presents a mixed picture, with work intensity on the rise but autonomy also increasing. Overall, there does not seem to be clear evidence of an overall shift towards worse working conditions.

Chart 1.12. **A growing number of people work very long hours in some countries**

Individuals working 45 hours and over per week,[a] 1991 and 2001



a) Usual weekly hours, except actual hours in survey week for Australia and Japan.
b) Data refer to 1995 instead of 1991.
c) Data refer to 49+ hours.

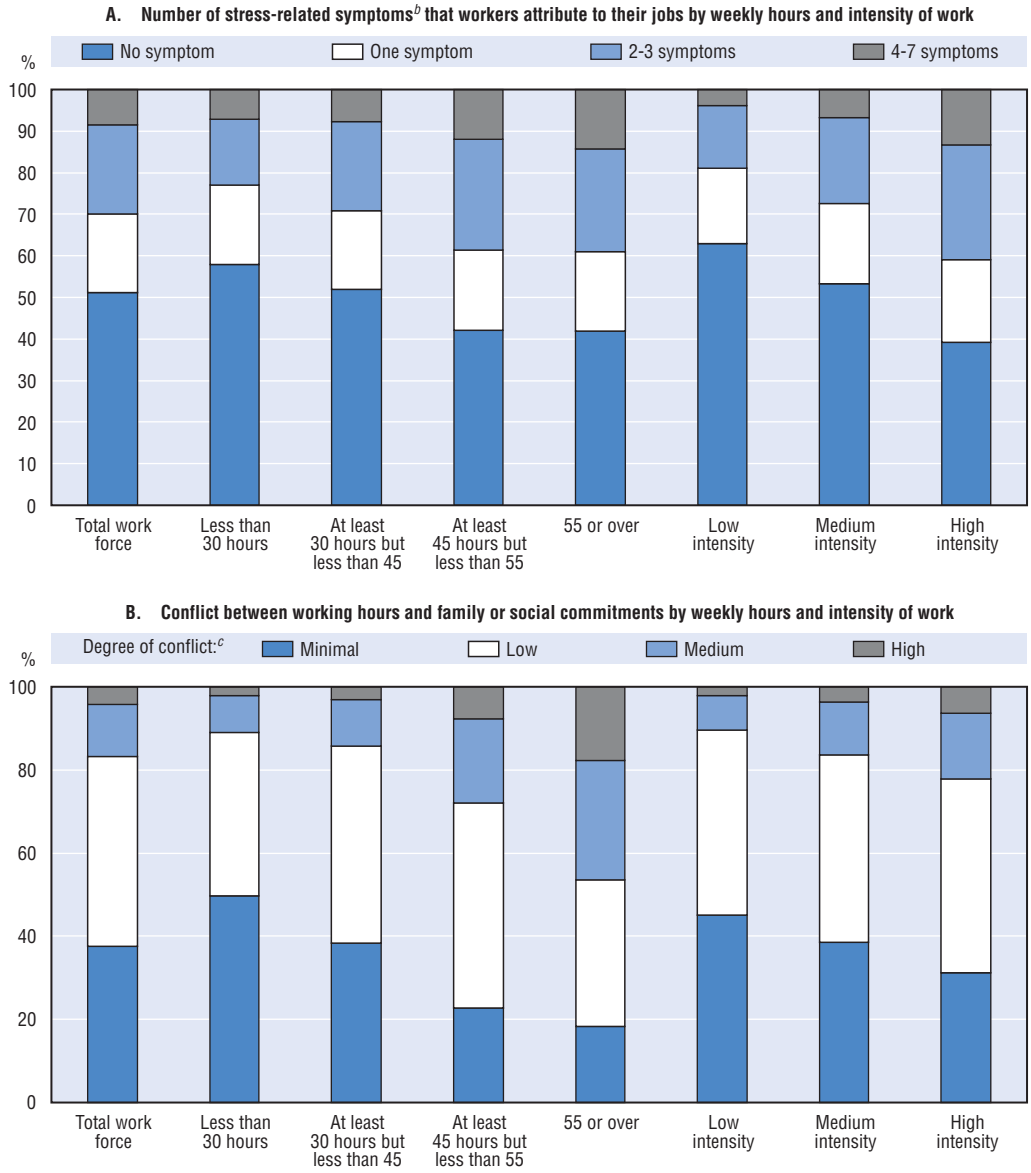
Source: OECD database on Usual Hours Worked.

Box 1.5. **Consequences of long hours on health and life quality**

Chart 1.13 shows the relationship between two stress factors – long work hours and an intense work pace – and two adverse consequences that potentially could result from these working conditions – an increase in the number of stress-related health problems and self-assessed conflict between working hours and family or social obligations. Panel A confirms that both increased working hours and an increasingly intense pace of work are associated with an increase in the number of stress-related health problems that workers experience and identify as being related to their jobs. Similarly, Panel B documents that an intense work pace and long hours are also associated with an increased level of the perceived conflict between work on the one hand and family and social life on the other.

Chart 1.13. **Long hours and intense work disrupt family life and cause stress**

Life quality consequences of long hours and intense work, 2000/2001
Percentage of dependent employees in the identified group[a]



a) Unweighted averages for 15 European countries (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom).

b) Based on workers responses to question 35, which asks them to identify health problems caused by their jobs. Among a larger number of symptoms, seven were selected as being closely associated with stress: headaches, stomach ache, muscular pains in shoulders and neck, stress, overall fatigue, sleeping problems and anxiety.

c) The classification by degree of conflict is based on question 20 which asks workers to assess how well their work hours "fit" with their family or social commitments outside work, with the responses "very well", "fairly well", "not very well" and "not at all well" being interpreted as indicating minimal, low, medium and high conflict, respectively.

Source: Secretariat calculations based on microdata from the Third European Working Conditions Survey 2000/2001, collected by the European Foundation in Dublin.

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C. Growth in part-time and temporary jobs

Part-time work has been an important factor behind employment growth of under-represented groups

Part-time work accounted for a substantial share of overall employment growth in a considerable number of OECD countries (Table 1.4). Rising part-time employment offset declining full-time employment in four countries (Austria, Finland, Italy and Japan). It also accounted for over half of total employment growth in nine other countries. Disaggregation of these data (not shown) reveal that part-time work has been an especially important factor behind employment growth for women, youths and, to a lesser extent, older workers

Table 1.4. **Contribution of part-time[a] and temporary work[b] to employment growth, 1991-2001**

	Share of part-time in total employment 2001	Annual average change as a percentage of total employment		Share of temporary in total employment 2001	Annual average change as a percentage of total employment	
		Full-time	Part-time		Permanent	Temporary
Australia	27.2	1.1	0.9	5.7	. .	. .
Austria	12.4	–0.1	0.2	8.0	–0.1	0.4
Belgium	17.6	0.1	0.3	8.8	0.7	0.5
Canada	18.1	1.4	0.3	12.8	2.2	0.7
Czech Republic	3.2	–0.1	–0.1	9.0	–1.4	0.3
Denmark	14.5	0.8	–0.3	9.4	0.7	–0.2
Finland	10.5	–0.2	0.3	16.4	2.9	0.0
France	13.8	0.6	0.3	14.9	0.7	0.7
Germany	17.6	–0.8	0.6	12.7	–0.5	0.3
Greece	4.8	1.0	–0.2	12.9	2.1	0.1
Hungary	2.8	1.1	0.0	7.5	1.6	0.4
Iceland	20.4	1.5	0.1	9.9	2.4	–0.2
Ireland	18.4	3.0	1.7	4.7	5.1	–0.2
Italy	12.2	–0.2	0.4	9.5	–0.4	0.4
Japan	24.9	–0.4	0.5	12.8	0.4	0.3
Korea	7.5	1.0	0.4	17.0	. .	. .
Luxembourg	13.1	0.4	0.6	4.4	1.7	0.2
Mexico	13.8	3.0	–0.1	19.7	4.2	0.3
Netherlands	33.0	1.3	1.3	14.3	1.5	1.0
New Zealand	22.4	1.7	0.7	. .	. .	. .
Norway	20.1	1.3	0.1	9.3	2.4	–0.6
Poland	11.6	0.1	–0.1	11.9	–4.5	1.9
Portugal	9.2	0.5	0.2	20.3	0.2	0.6
Slovak Republic	1.9	0.3	–0.1	5.0	–0.5	0.3
Spain	7.9	1.2	0.5	31.5	1.8	0.7
Sweden	13.9	1.7	0.4	14.8	1.9	0.4
Switzerland	24.8	0.1	0.4	11.6	0.3	–0.1
Turkey	8.0	0.7	–0.3	15.2	3.4	0.5
United Kingdom	23.0	0.1	0.4	6.7	0.7	0.2
United States	13.0	1.5	0.1	4.0	2.0	–0.1

. . Data not available.

a) Part-time employment refers to persons who usually work less than 30 hours per week in their main job. 1991-2000 for Germany and the Netherlands; 1992-2001 for Poland; 1993-2001 for the Czech Republic; 1994-2001 for the Slovak Republic; 1995-2001 for Austria, Hungary and Mexico.

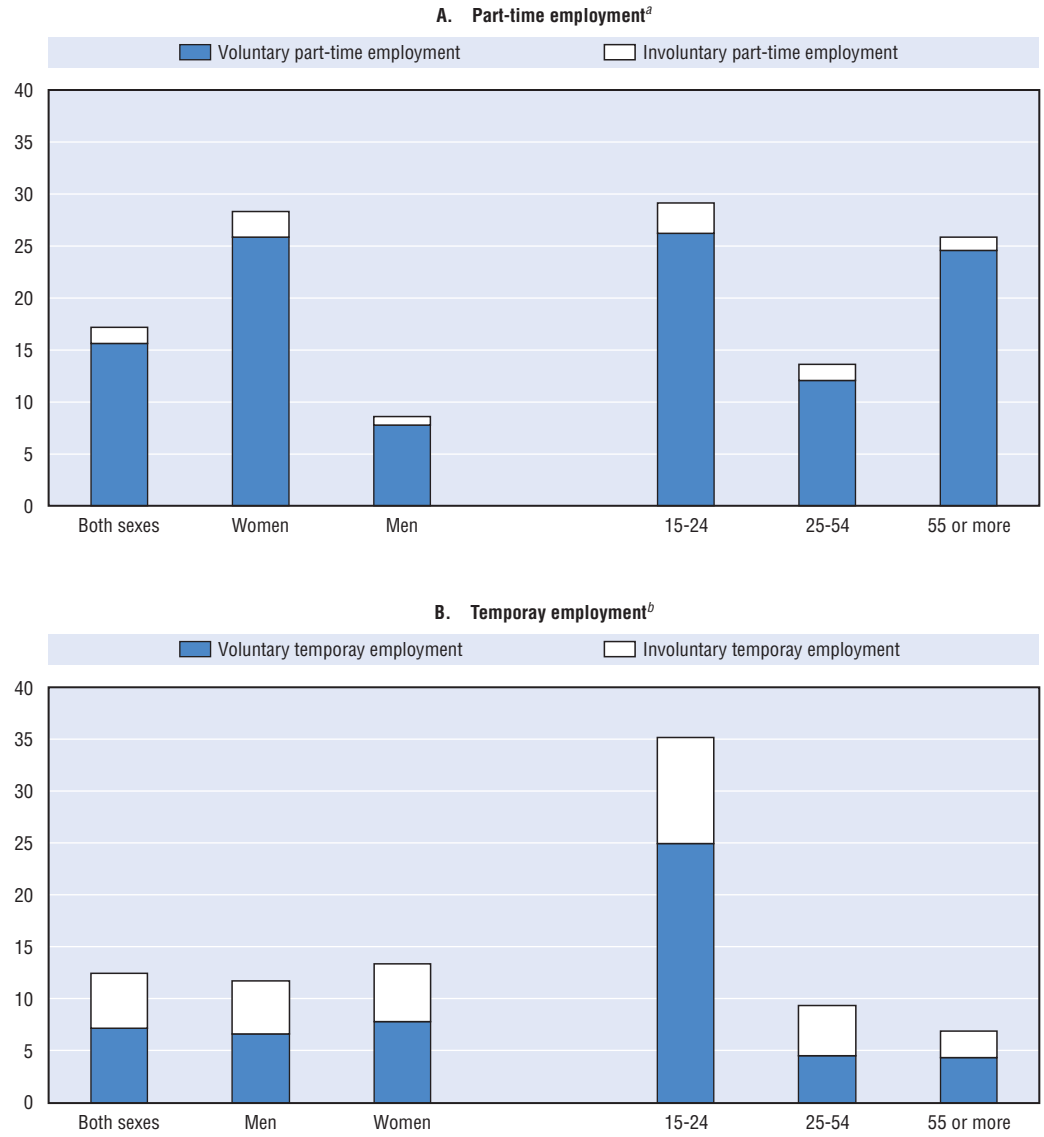
b) 1991-2000 for Germany and Ireland; 1993-2001 for the Czech Republic; 1994-2001 for the Slovak Republic; 1995-2001 for Austria, Mexico and the United States; 1996-2000 for Norway; 1997-2001 for Canada, Finland, Hungary and Sweden; 1998-2001 for Poland; 1997 for Australia; and 2001 for Korea.

Source: OECD databases on Part-time and Temporary Employment.

Chart 1.14, Panel A shows that in the OECD as a whole, about 13% of part-time women and 16% of part-time men would prefer a full-time job, if one was available. This suggests that part-time work most often reflects a preference for a shorter work week and suggests that countries with very little part-time employment could foster increased participation

Chart 1.14. **Part-time is mostly a voluntary choice but temporary workers look for permanent jobs**

Voluntary and involuntary incidence of part-time and temporary employment by gender and age, 2001
Percentages of total employment



a) Population-weighted averages of the following countries: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.

b) Population-weighted averages of the following countries: Austria, Belgium, the Czech Republic, Denmark, Finland, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden and the United Kingdom.

Source: Secretariat estimates based on OECD database on Part-time Employment and the European Union Labour Force Survey, data provided by Eurostat.

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and employment of women with children – and perhaps other groups – by policies that promote the availability of part-time positions or make them more attractive (*e.g.* by providing part-time workers with pay parity and access to fringe benefits and social insurance on a pro-rata basis). The extent to which part-time work can help improve the employment prospects of under-represented groups is discussed in Chapter 3.

… while temporary jobs have been less dynamic

Temporary employment has been a less dynamic component of total employment growth over the past decade than part-time employment, accounting for one-fourth or more of total job gains in only ten of the 24 countries where total employment rose (Table 1.4). In four countries (Austria, France, Italy and Portugal), temporary jobs accounted for more than half of the growth in total employment, probably as a response to liberalisation of the rules governing fixed-term contracts or temporary placement agencies in the context of relatively strict job protection for regular workers. While the share of temporary jobs in total employment rose in a majority of countries, temporary work was not the main contributor to employment growth. Only in 7 out of 27 countries did the contribution of temporary employment surpass that or permanent employment. The temporary share declined modestly in Spain, the country where the expansion of temporary employment had gone the furthest.

Although temporary employment has been less dynamic than part-time employment, its expansion raises particular concerns because more than four out of ten workers in temporary jobs indicate that they would prefer a permanent contract (Chart 1.14, Panel B).[28] Despite many workers not viewing temporary contracts as an intrinsically attractive employment condition, temporary jobs may make it easier for non-employed persons to enter employment by increasing the willingness of employers to hire job searchers whose productivity is difficult to assess (*e.g.* persons with little prior work experience) or whose commitment to a long-term employment relationship is doubted. However, any such gains in easing the entry into employment would need to be offset against the possible disadvantages of temporary jobs in terms of employment retention and access to training (OECD, 2002a, see also Chapter 5).

D. Is employment insecurity on the rise?

Another important feature of jobs is their *stability*. This has both an objective dimensions (*i.e.* how many workers experience job loss and what are the consequences?) and a subjective dimensions (*i.e.* workers' perceptions of how stable their current job is). In this sub-section, data are presented on both of these dimensions of employment insecurity.

Perceptions of insecurity are on the rise in a number of countries…

Table 1.5 analyses changes in workers' perceptions of job security using data from the 1989 and 1997 waves of the International Social Survey Programme.[29] The percentage of employees perceiving that their job was at least somewhat insecure (more precisely, not strongly agreeing that their job was secure) rose in all seven countries with data for both of these years, often quite sharply.[30] While subjective data, such as these, are always difficult to interpret, some recent empirical evidence shows that subjective job-loss expectations have significant predictive power in explaining future job losses, and that higher subjective job-loss probabilities are correlated with an increased expectation of future earnings

declines (Stephens, 2003). Moreover, these perceptions are important in their own right. First, some researchers argue that subjective job security is closely tied to individual well-being (see *e.g.* Bohle *et al.*, 2001). Second, higher levels of perceived insecurity have implications for the macro-economy, being linked to lower levels of consumer expenditure and greater wage restraint.[31] Finally, perceived insecurity can influence the employer-employee relationship, for example, by reducing productivity levels through low satisfaction and motivation at work.[32]

Table 1.5. **Perceptions of insecurity are on the rise**

Perceptions of job insecurity in OECD countries, 1989 and 1997
Percentage of employees not strongly agreeing that "my job is secure"

	Both sexes		Men		Women	
	1989	1997	1989	1997	1989	1997
Austria	47	. .	48	. .	46	. .
Canada	. .	80	. .	75	. .	84
Czech Republic	. .	82	. .	84	. .	79
Denmark	. .	46	. .	45	. .	47
East Germany	. .	94	. .	94	. .	94
France	. .	75	. .	82	. .	69
Hungary	82	88	81	88	83	88
Ireland	77	. .	72	. .	85	. .
Italy	49	70	47	72	50	67
Japan	. .	55	. .	55	. .	55
Netherlands	76	81	74	80	78	83
Norway	67	76	68	80	65	72
Poland	. .	87	. .	87	. .	86
Portugal	. .	65	. .	65	. .	65
Sweden	. .	83	. .	82	. .	84
Switzerland	. .	83	. .	83	. .	82
United Kingdom	83	87	83	88	83	86
United States	73	77	73	81	72	75
West Germany	63	68	61	70	66	66
Germany	. .	76	. .	77	. .	74
OECD	**70**	**78**	**70**	**80**	**71**	**77**

OECD: Unweighted average of the seven countries with data for both years.

Source: Secretariat estimates based on the International Social Survey Programme, 1989 and 1997.

... but objective measures of insecurity are mixed

The most obvious explanation for an increased perception of insecurity would be that the risk of job loss has increased. Although internationally comparable data on the risk of involuntary layoffs are not available, the overall stability of the distribution of job tenures casts doubt on this explanation.[33] Another possibility is that economic consequences may have worsened for workers who lose their job. The remainder of this sub-section presents two measures of the cost of job loss: average wage losses once re-employed and the probability of experiencing a dismissal leading to long-term unemployment.

Unemployment and dismissal cause losses in real wages but these are usually small

Table 1.6 reports results from a simple regression analysis of average wage losses following unemployment and dismissal, once re-employed.[34] The starting point is a standard log-wage equation relating individual earnings to a set of human capital

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variables. This standard model is augmented to include controls for having experienced unemployment or a dismissal. Separate versions of the model are estimated for the two types of events, with dummy variables being used to capture the impacts of unemployment (dismissal) on gross hourly earnings. Two dummy variables are used in each case: one variable taking the value of one if the spell of unemployment ended (or job loss occurred) within 12 months of the earnings observation, and zero otherwise; the second taking the value of one if the spell of unemployment ended (or job loss occurred) more than 12 months before the earnings observation, and zero otherwise. This structure makes it simple to evaluate not only the effect of unemployment (dismissal) on earnings but also whether this effect fades as experience is accumulated on the new job. These models were estimated by OLS using data from the European Community Household Panel (ECHP), which provides detailed labour market histories for representative samples of workers in EU countries. The effect of unemployment (job loss) on earnings is estimated separately by country and for a pooled sample of all EU countries.[35]

Table 1.6. **Wage losses following unemployment and dismissal are usually small**

Average wage losses following an unemployment spell or dismissal by country, 1994-1998

	Percentage change in gross hourly earnings following an unemployment spell[a]		Percentage change in gross hourly earnings following dismissal[b]	
	Within the 12 past months	More than 12 months ago	Within the 12 past months	More than 12 months ago
Austria	. .	. .	–9.0	. .
Belgium	–6.0	–7.0	–5.6	. .
Denmark	. .	. .	–4.0	. .
Finland	. .	–9.0	. .	. .
France	–3.5	–10.9	–5.4	–7.8
Germany	. .	. .	. .	. .
Greece	. .	–4.4	. .	–6.1
Ireland	–4.4	–10.6	. .	–3.6
Italy	–4.3	–3.4	–3.9	. .
Netherlands	–5.3	. .	. .	. .
Portugal	–2.4	–1.8	. .	–5.1
Spain	–6.3	–2.2	–5.3	–3.6
United Kingdom	–3.9	–10.9	. .	. .
ECHP[c]	**–3.7**	**–2.0**	**–4.6**	**–3.5**

. . Not statistically significant at 10% level.

a) OLS coefficients of dummy variables for experiencing, respectively, a spell of unemployment within the 12 past months or a spell of unemployment more than 12 months earlier. The dependent variable is the logarithm of the gross hourly wage and the sample is all wage and salary workers. The explanatory variables also include dummy variables for age, educational attainment, job tenure and time.

b) OLS coefficients of dummy variables for experiencing, respectively, a dismissal within the 12 past months or a dismissal more than 12 months earlier. The dependent variable is the logarithm of the gross hourly wage and the sample is all wage and salary workers. The explanatory variables also include dummy variables for age, educational attainment, job tenure and time.

c) OLS coefficients from a pooled regression which also incorporates country fixed effects.

Source: Secretariat estimates based on the European Community Household Panel, wave 1 to 5 (1994-1998).

The estimation results indicate that average wage losses are quite small (Table 1.6), which is consistent with the literature on insecurity (Farber, 2003). The variation across countries in wage losses following a spell of unemployment during the previous year is quite narrow, with the losses ranging from 4% to just above 6%, with the sole exception of Portugal where the estimated wage loss is only 2.4%. The largest earnings losses following unemployment are observed in the United Kingdom and in Belgium, where hourly wages in the year following unemployment are about 6% less than they would have been in the

absence of an unemployment spell. Average wage losses in the year following dismissal are a little larger overall and somewhat more variable across countries, ranging from about 4% in the Netherlands and Italy to over 9% in Austria. The size of the wage loss diminishes with the passage of time in some countries, but rises in Belgium, France, Ireland and the United Kingdom.

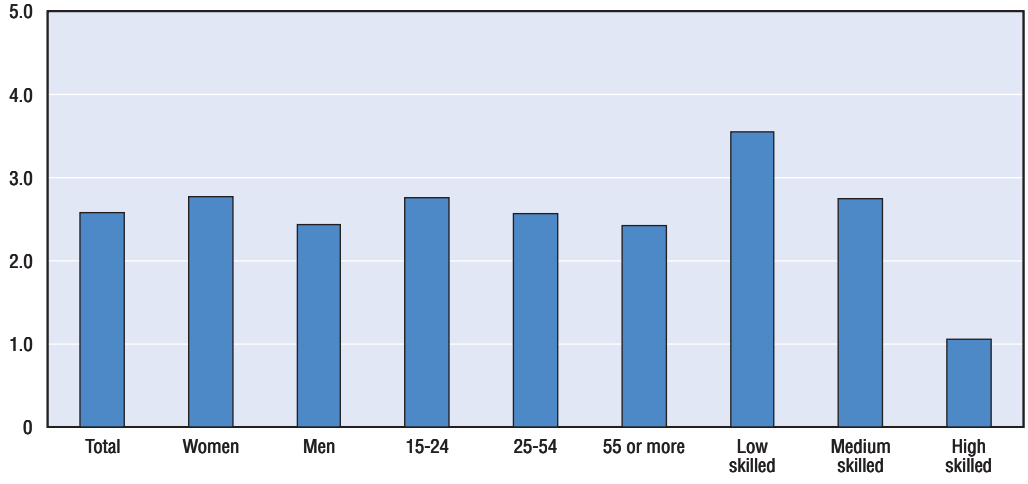
The regression analysis was also carried out separately for different age and gender groups, but very few significant differences emerged and these results are not reported. More interesting differences emerged when changes in gross *monthly* earnings were used to assess the impacts of unemployment and dismissals on earnings. Rankings of countries are not much affected. However, the estimated average percentage losses are significantly larger for monthly than for hourly earnings, because the monthly estimates reflect reductions in both hourly earnings and hours worked.

The low skilled, youths, and women find it difficult to exit unemployment after dismissal

Although the estimated wage losses discussed above do not show marked differences across demographic groups, it is possible that individuals belonging to some groups may find it more difficult to regain employment and, hence, tend to be omitted from the analysis of earnings losses among re-employed persons. Chart 1.15 reports incidence rates of dismissal leading to long-term unemployment for European workers disaggregated by gender, age and educational attainment. This incidence measure sheds some light on demographic differences in the ease of re-employment following dismissal, while also serving as a proxy for the total expected costs of job loss, since it combines the probability of job loss with an indication of the magnitude of the resulting costs.[36] On average for

Chart 1.15. **After dismissal, the low-skilled, youth and women find it more difficult to exit unemployment**

Incidence of long-term unemployment following dismissal by gender, age and educational attainment,[a] 2001
Percentage[b]



a) Low educational attainment corresponds to not having completed upper secondary schooling and high educational attainment to having completed a university or tertiary degree.

b) Population-weighted average for the following countries: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden and the United Kingdom.

Source: Secretariat calculations based on the European Labour Force Survey, data provided by Eurostat.

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22 European countries in 2001, these incidence rates are above the overall average of 2.6% for women (2.8%), youths (2.8%) and, especially, low-educated workers (3.6%). Farber (2003) finds similar patterns among displaced workers in the United States, with youths and low-educated workers having above-average incidences of dismissal, and women, youths and low-educated workers having above-average probabilities of remaining jobless for an extended period of time following dismissal.[37]

Conclusions

This chapter's analysis provides some support for the view that there has been a modest improvement in overall labour market performance in the OECD area during the past decade. It also appears likely that a considerable share of these gains are structural. However, OECD averages hide a wide diversity of experience across countries, ranging from dramatic increases in employment rates in a few countries to rising unemployment in others. Furthermore, progress in increasing employment has not been accompanied by systematic changes in indicators of job quality, which provide a mixed picture including some evidence for upward pressures on earnings inequality, job insecurity and the intensity of work, but also evidence that a strong employment performance need not imply a degradation of job standards or productivity growth. In sum, some progress has been achieved in generating more and better jobs, but plenty of scope for improvement remains.

The chapter's analysis of aggregate labour market performance during the past decade points to three areas where further analysis is required. First, our understanding of the linkages between structural reforms and sustained improvements in performance remains incomplete. Recent experience suggests that the broad policy framework laid-out in the *OECD Jobs Strategy* generally has proven to be effective (OECD, 1999b). However, a comprehensive reappraisal would be timely. Second, a longer-run perspective on labour market reforms and employment performance is required to supplement the medium-term analysis in this chapter. As is discussed in Chapter 2, a key criterion for judging policy choices should be whether they foster the necessary, long-term adaptations to population ageing. Finally, this analysis of aggregate employment performance also needs to be supplemented with a more finely grained analysis of the supply and demand-side factors affecting the participation choices and employment experiences of groups on the margins of the labour market. Strong overall labour demand is a precondition for these groups to fare well in the labour market, but policy makers also need to address the specific barriers to full integration into employment which affect these groups. The rest of this publication addresses some of these barriers, as well as policies to overcome them.

Notes

1. This chapter's analysis of labour market conditions reflects data available as of June 2003.
2. Longitudinal analysis is required to resolve these issues. Research to date, while far from having achieved a definitive resolution, has revealed a complex reality that conforms to neither the most pessimistic nor the most optimistic accounts (OECD, 1996, 1997, 2002a; and Chapter 2 of this publication).
3. In this publication, the terms "European Union" and "EU" refer to the 15 member countries of the European Union as of 2002 and "Oceania" refers to Australia and New Zealand.
4. IMF (2001), European Commission (2001 and 2002) and Pehkonen (2000) investigated possible changes in the responsiveness of employment to growth in the 1990s and concluded that employment became more "cyclical" in the past decade in some EU countries. The IMF study finds

that this is true for Spain, Italy and France, but not for Germany, while the European Commission finds this result applies to the European Union as a whole. A possible explanation for increased responsiveness of employment to output growth is provided by the wider use of fixed-term contracts and other non-standard forms of employment, while the quicker response of unemployment rates to changes in hiring could also reflect a downward trend in the pool of workers having left the labour force due to discouragement effects following job loss (Bentolilla and Bertola, 1990; and Bentolilla and Saint-Paul, 1992, present some theoretical support for this argument). As noted in the text, however, the current economic slowdown appears to confound these expectations.

5. Chapter 2 argues that the increased prominence of increased employment rates as a policy goal is to be welcomed, especially in the context of population ageing.

6. The years 1991 and 2001 correspond to the on-set of a recession (or slowdown) for the OECD area as a whole, but not for all OECD countries (Chart 1.1).

7. The length of time necessary for the full effects of structural reforms to become visible is likely to be long and is rather uncertain (Elmeskov *et al.*, 1998; OECD, 1999b). The analysis of benefit recipiency rates in Chapter 4 also illustrates the potential importance of long lags in behavioural responses to policy changes.

8. Population-weighted average for the OECD, excluding the Czech Republic, Hungary, Poland and the Slovak Republic (due to missing data in the early 1990s).

9. The CEE countries represent a special case, since the transition from centrally-planned economies (in which open unemployment hardly existed) to market-based economies has resulted in a sharp fall in employment that is irrelevant for assessing the efficacy of labour market reforms in other countries. In Sweden, the early 1990s crisis caused a strong reduction in employment that has not been fully recovered yet: the 2001 employment to population ratio was still 5.7 percentage points below its 1991 level. One reason behind this only partial recovery is the strong increase in enrolment in Active Labour Market (ALMP) schemes and education programs. In 1999, a total of 7% of the labour force was in active labour market policy and extraordinary education programmes (OECD, 1999c). The 10 percentage-points fall in the employment rate in Turkey is due to strong labour force withdrawal during a decade of economic turbulence.

10. The poor performance of Germany appears to have been related to the difficulties of absorbing the former Eastern Germany and is associated with large regional differences in employment outcomes. The Finnish economy was also strongly adversely affected by the break-up of the Soviet economic block and the employment rate fell a little more strongly during 1991 to 2001 in Finland than in Germany. However, Finland experienced a far steeper initial drop in employment, followed by a strong recovery.

11. Note that in the decomposition of changes in the total employment/population ratio in Chart 1.3 into the numerical contributions of changes in unemployment and inactivity rates, unemployment is measured as a share of the total working-age population rather than as a share of the labour force. In comparing the numerical contributions of reductions in inactivity and unemployment to increased employment, it should also be borne in mind that the practical significance of the statistical distinction between certain forms of inactivity and unemployment may not be very pronounced. An example is provided by "discouraged workers" (*i.e.* individuals who would like to work, but are not searching for a job because they believe that none are available). However, the analysis reported here is not much affected by alternative treatments of these measurement issues. In particular, an analysis of 1991-2001 trends using an "augmented" unemployment rate – which incorporates discouraged and involuntary part-time workers (with a weight of one-half) – yields similar results to those discussed in the text based on standard employment, unemployment and inactivity rates.

12. Although reductions in unemployment and inactivity rates contributed to a similar degree to increasing employment rates during the 1990s, future increases in employment rates that would be sufficient to stabilise dependency ratios in the context of population ageing or to allow low-employment countries to close the gap with high-employment countries would have to come mostly from reductions in inactivity (see Chapter 2 for a more detailed analysis).

13. This section makes use of scatter plots juxtaposing the percentage-point changes in the employment rates of these four workforce groups with employment rate changes for the total working-age population. Points lying above the 45-degree line indicate above-average employment growth for the marginal group in the associated countries.

14. Since the 1960s, participation rates for men, over the life cycle, have dropped dramatically due to rising educational attainment (*i.e.* later labour market entry) and falling effective ages of

retirement (OECD, 1998b). This secular decline appears to have slowed during the 1990s, as retirement ages have stabilised or even risen in some countries, but the extent of this slowing is difficult to judge since improving cyclical conditions also encouraged greater participation.

15. This probably reflects both the impact of important pension reforms in a number of countries and the fact that improved labour market conditions made it easier and more attractive for older workers to remain in the labour force.

16. Macroeconomists define the equilibrium unemployment rate – often referred to by its acronym "NAIRU" (*i.e.* the non-accelerating inflation rate of unemployment) – as the rate of unemployment consistent with stable inflation and a balance of payments in equilibrium. Estimates of the NAIRU provide a useful point of reference for both short-run stabilisation policy (which aims to reduce fluctuations around the NAIRU) and long-run structural policy (which aims to achieve a low NAIRU).

17. Layard *et al.* (1991) developed a theoretical framework in which equilibrium unemployment is determined by the interplay of a U-V curve (reflecting matching between unemployed job seekers and job vacancies) and a wage curve (reflecting wage pressure). This framework continues to underpin much theoretical and empirical research, as is evidenced by Blanchard and Katz's (1997) survey article. Several empirical studies have adopted this framework (*e.g.* Nickell and Layard, 1997b; Elmeskov *et al.*, 1998; OECD, 1999b; Nicoletti *et al.*, 1999; Belot and Van Ours. (2000); Daveri and Tabellini, 2000; Blanchard and Wolfers, 2002; and Nickell *et al.*, 2003), providing important insights into the factors affecting the level of structural unemployment. Several of these studies conclude that changes over time in a few of the structural factors highlighted by the theoretical framework provide a reasonably satisfactory explanation of the broad evolution of unemployment in OECD countries during the past several decades.

18. For example, improvements in public employment services (Chapter 4) or policies to upgrade workers' skills (Chapter 5) may increase matching efficiency, by facilitating the reintegration of unemployed individuals.

19. The cross-country standard deviation of the NAIRU values in Table 1.3 fell from 3.3 in 1991 to 2.5 in 2001. Chart 1.1 shows that *actual* unemployment rates also converged (aside from the CEE countries).

20. The results discussed here are consistent overall with the evidence presented in Nickell *et al.* (2003), although the analysis has been extended to incorporate two additional years of data.

21. Nickell *et al.* (2003) also classify the United Kingdom as a "successful" country where the Beveridge Curve shifted leftwards from the mid-1980s. As is evident in Chart 1.8, this classification is called into question when data through 2001 (which incorporate recent revisions to the historical series on vacancies), are plotted. However, if alternative data on labour shortages (collected by the Confederation of British Industry) are used instead, a favourable shift of the UK Beveridge curve is confirmed (Nickell, 2002).

22. See Estevão and Nargis (2002) for an exhaustive analysis of the topic using micro-data for France.

23. Real wage shares can be interpreted as the ratio of the real wage to labour productivity.

24. Business-sector employment growth in EU countries had began to recover in the 1980s, but that trend strengthened in the 1990s.

25. In this analysis, jobs are classified by broad wage levels (low, medium, high) as follows (see OECD, 2001a, for more details). First, employment in each country is divided into 13 sectors and into a number of broad occupations, varying from four to seven depending on the sector. In total, 76 separate sector/occupation categories are identified. These categories are then ranked on the basis of average hourly earnings for workers in each category in 1995 and assigned to three groups (low, medium, high paid) of equal size on the basis of employment shares. Employment changes between 1993 and 2001 are then traced out for each group of jobs.

26. Keating also shows that changes in the structure of labour demand in favour of more skilled jobs were the main cause behind the increase in the dispersion of earnings in Australia over the past decade. The Commonwealth government presented similar findings regarding the pattern of employment growth, and showed in the 2001-2002 Safety Net Review report that growth in hours worked has been strongest amongst high-paid occupations and weakest amongst low-paid occupations.

27. For example, the proportions of workers reporting working in painful and tiring positions increased by 4 percentage points, exposure to intense noise rose by 2 percentage points and the share of workers reporting that they lift heavy weights rose by 6 percentage points.

28. Gender differences in involuntary temporary work are muted, but age differences are quite large. Over one-half of prime-age workers in temporary jobs would prefer a permanent job, as compared to 29% of younger workers and 37% of older workers.

29. One limitation of these comparisons for assessing trends is that the two years available relate to somewhat different cyclical positions: 1989 was near a cyclical peak in most of these countries, while 1997 was a mid-expansion year.

30. A similar trend is observed in Australia, where the annual Morgan Poll asks employees whether they think their job is safe. In 1989, 82% believed their job was safe, compared with 77% in 1997 and 75% in 2002.

31. Campbell *et al.* (2001) show that high fear of unemployment is associated with significantly lower wage levels, in Britain.

32. Increased perceptions of insecurity could, instead, increase productivity, if an increased fear of loosing one's job increases work effort. However, the hypothesis of a negative relationship has received more empirical support (see, for example, Buchele and Christiansen, 1999).

33. See OECD (1997) for a somewhat dated analysis. A partial updating of that study confirmed this finding (data not shown).

34. The two groups are distinct, but not mutually exclusive: individuals who are dismissed may or may not experience unemployment before becoming re-employed; while individuals who experience some unemployed when moving between two jobs may or may not have been dismissed.

35. The pooled model contains fixed country effects, while all of the models include individual fixed effects to control for unobserved (and time-invarient) characteristics affecting earnings potential. These earnings regressions were estimated over the 1994-99 period covered by the ECHP. Unfortunately, the short length of the panel does not allow to check for changes over time in the effect of job loss (or unemployment) on earnings.

36. Nickell *et al.* (2002) and Nicoletti *et al.* (2001) argue that a comprehensive measure of insecurity should reflect both the probability of job loss and the resulting costs. The index used here omits wage losses once re-employed. However, it may provide a reasonable proxy for a comprehensive measure of insecurity, if long spells of unemployment following dismissal are be associated with higher wage losses once re-employed (*e.g.* due to greater skill deterioration), in addition to reflecting foregone earnings while jobless.

37. Some partially discrepant evidence should be noted. First, the subjective data on job security indicate lower perceived insecurity for women than for men (Table 1.5), but confirm higher insecurity for youth than for their older counterparts (data not shown). Wage regressions of the type reported in Table 1.6 suggest that women, youth and low-educated workers experience wage losses following dismissal that are similar to (or a little lower than) those experienced by other groups, provided they become re-employed relatively quickly. However, individuals in these groups are less likely to find a new job quickly.

ANNEX 1

Supplementary Evidence

Table 1.A1.1. **Productivity and real wage growth and wage share in OECD countries, 1970-2002**

Percentage growth

	Labour productivity growth in the business sector				Real wage growth in the business sector				Wage share of the business sector[a]				
	1970-80	1980-90	1990-95	1995-02	1970-80	1980-90	1990-95	1995-02	1970	1980	1990	1995	2002
Australia	2.1	1.1	2.1	2.0	–1.1	0.2	0.1	1.3	. .	52.5	49.6	45.2	44.0
Austria	3.1	2.2	1.8	1.9	4.0	1.5	1.1	0.8	49.9	59.6	56.4	56.1	53.9
Belgium	3.1	2.0	1.3	1.1	4.6	0.8	1.8	0.6	51.2	59.5	52.7	53.0	52.5
Canada	1.3	1.2	1.3	1.4	1.6	0.8	0.2	1.5	55.9	59.3	55.8	51.4	52.8
Czech Republic	. .	. .	. .	2.1	. .	. .	. .	2.5	. .	. .	. .	43.3	43.7
Denmark	2.5	1.3	2.8	1.7	1.8	1.2	0.8	1.3	. .	59.6	59.8	54.8	55.0
Finland	3.4	3.2	3.6	2.1	4.0	3.1	–0.4	1.3	50.1	55.4	59.0	48.4	47.0
France	3.1	2.4	1.3	1.1	3.2	0.7	0.0	0.7	59.7	64.7	57.5	54.5	54.6
Germany	2.9	1.2	–0.2	0.8	3.2	0.7	–0.5	–0.1	53.6	59.5	58.7	58.0	54.2
Greece	4.5	–0.2	0.5	3.1	5.5	0.1	–1.9	2.1	. .	. .	. .	. .	. .
Hungary	. .	. .	. .	2.6	. .	. .	. .	1.6	. .	. .	. .	28.4	27.9
Iceland	3.9	1.1	–1.9	2.2	2.6	1.0	–1.3	2.6	80.4	69.1	64.1	67.7	72.7
Ireland	4.1	3.8	1.9	3.4	3.9	1.2	1.4	1.1	. .	63.9	48.1	46.4	41.5
Italy	2.9	1.8	1.7	0.5	3.6	0.9	0.1	–0.2	48.1	50.6	45.9	40.7	39.8
Japan	3.5	2.6	0.5	1.0	3.9	1.3	0.3	0.3	51.4	57.5	54.2	56.9	56.1
Korea	5.0	6.1	4.0	3.5	5.7	5.4	2.4	1.0	. .	41.0	51.6	50.3	40.7
Luxembourg	. .	. .	1.6	0.8	. .	0.7	1.4	1.3	. .	. .	56.2	56.9	60.5
Mexico	. .	–0.2	0.1	1.5	. .	–3.7	4.0	0.0	. .	67.3	44.1	45.7	42.5
Netherlands	3.0	1.4	1.2	0.6	3.3	0.2	0.6	0.7	58.9	61.9	55.1	52.6	54.2
New Zealand	0.5	1.7	0.6	1.0	1.0	0.2	0.0	0.2	. .	55.9	46.0	43.7	41.8
Norway	3.1	0.6	2.9	1.1	–0.1	0.7	1.4	2.4	. .	68.1	68.7	66.1	76.7
Poland	. .	. .	. .	4.9	. .	. .	. .	3.4	. .	. .	. .	43.0	38.7
Portugal	3.0	1.9	0.0	1.5	5.6	–0.6	2.5	1.8	52.6	55.7	47.0	47.4	49.2
Slovak Republic	. .	. .	. .	3.8	. .	. .	. .	2.8	. .	. .	. .	40.7	37.2
Spain	3.7	2.1	2.0	0.7	4.5	0.8	1.8	0.8	45.2	52.8	49.6	48.5	50.9
Sweden	1.7	1.8	3.2	1.5	2.0	0.7	0.5	2.3	66.2	70.1	64.2	53.0	57.9
Switzerland	1.0	0.3	0.0	0.7	1.3	1.2	0.2	1.4	. .	63.8	70.0	68.9	72.6
Turkey	. .	2.9	0.9	1.8	. .	. .	4.1	–5.4	. .	. .	. .	. .	. .
United Kingdom	2.5	2.0	1.9	1.0	2.4	1.4	0.8	2.1	66.6	67.5	61.3	57.9	65.4
United States	1.3	1.3	1.2	1.8	1.0	0.6	0.7	1.6	65.0	63.4	59.3	57.4	57.3
Euro zone[b]	**3.0**	**1.7**	**1.0**	**1.1**	**3.5**	**0.8**	**0.2**	**0.4**	**55.5**	**59.7**	**55.3**	**52.8**	**53.3**
OECD[b]	**2.0**	**1.6**	**1.1**	**1.7**	**2.1**	**0.8**	**0.4**	**1.3**	**58.7**	**60.8**	**56.8**	**55.4**	**55.5**

a) The wage share of the business sector is defined as the business wage rate times total business sector employment over business sector output at factor cost.
b) GDP-weighted average for countries with data for all years shown.

Source: *OECD Economic Outlook*, No. 72, June 2002.

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Table 1.A1.2. **Growth in real labour costs in excess of productivity growth[a] in OECD countries, 1970-2001[b]**

Percentage change (annual)

	Annual average growth in the 1970s	Annual average growth in the 1980s	Annual average growth in 1990-95	Annual average growth in 1995-2001
Australia	0.3	–0.9	–1.1	–0.8
Austria	0.7	–0.8	–0.6	–1.4
Belgium	1.2	–1.5	0.7	–1.0
Canada	0.9	–0.5	–1.1	–0.2
Czech Republic	. .	. .	. .	0.3
Denmark	. .	. .	–1.5	–0.4
Finland	0.8	0.8	–3.4	–1.3
France	0.6	–1.5	–1.0	–0.2
Germany	0.4	–1.1	1.8	–1.0
Greece	1.1	0.8	–2.9	–0.9
Hungary	. .	. .	–4.9	–1.6
Iceland	–0.4	–0.1	–1.6	1.1
Ireland	0.0	–2.3	–0.9	–2.7
Italy	0.7	–0.4	–2.2	–0.9
Japan	0.4	–1.4	–0.5	–0.8
Korea	2.0	–0.5	–2.4	–3.4
Luxembourg	2.3	–1.7	–1.4	–0.5
Mexico	. .	. .	5.6	–1.6
Netherlands	0.9	–1.8	–0.6	–0.1
New Zealand	0.7	–1.2	–0.5	–0.7
Norway	–2.8	–1.3	–2.4	1.2
Poland	. .	. .	. .	–1.6
Portugal	. .	. .	. .	0.4
Slovak Republic	. .	. .	. .	–1.9
Spain	. .	–1.1	–0.2	–0.3
Sweden	. .	. .	–3.1	0.8
Switzerland	. .	. .	0.5	0.1
Turkey	0.4	–1.7	1.5	–4.3
United Kingdom	0.4	0.1	–2.0	0.7
United States	0.0	–0.5	–0.5	–0.3
Euro zone[c]	**0.4**	**–1.7**	**–0.4**	**–0.5**
OECD[c]	**0.0**	**–1.7**	**–1.0**	**–0.5**

. . Data not available.

a) Difference between the growth rate of real labour costs (defined as the ratio of gross nominal compensation per employee to the GDP deflator) and the growth rate of real output per worker.

b) Annual average growth in 1970 refers to 1971-1980 for Ireland; to 1972-1980 for the Netherlands and Turkey; and to 1975-1980 for Korea and Norway.

c) Employment-weighted average.

Source: *OECD Economic Outlook*, No. 72, June 2002.

Table 1.A1.3. **Growth in multi-factor productivity and the employment to population ratio in selected countries, 1980-1990 and 1990-2000**

	1980-1990		1990-2000	
	Multi-factor productivity[a]	Employment to population ratio[b]	Multi-factor productivity[a]	Employment to population ratio[b]
Australia	0.57	2.7	1.31	3.9
Austria	1.82	. .	1.56	–0.4
Belgium	1.72	1.2	1.24	5.2
Canada	0.63	4.3	1.30	2.8
Denmark	1.00	5.3	1.45	0.8
Finland	2.38	2.9	3.16	–3.1
France	1.86	–4.8	1.00	1.0
Germany[c]	1.49	–1.5	0.94	–0.5
Ireland	3.60	–0.3	4.41	13.0
Italy	1.55	–1.6	1.03	1.4
Japan	2.15	2.4	1.02	0.8
Netherlands	2.26	7.5	1.58	9.3
New Zealand	0.20	–5.0	0.76	5.4
Norway	1.19	0.1	1.74	4.9
Spain	2.06	–2.1	0.72	5.5
Sweden	1.03	3.2	1.42	–6.9
United States	0.92	5.0	1.13	3.4

. . Data not available.

a) Annual growth rate in the business sector based on cyclically-adjusted series, 1980s and 1990s. 1983-1990 for Belgium, Denmark and Ireland; 1985-1990 for Austria and New Zealand; 1990-1996 for Ireland and Sweden; 1990-1997 for Austria, Belgium and New Zealand; 1990-1998 for the Netherlands; 1990-1999 for Australia, Denmark, France, Italy, Japan; and 1991-2000 for Germany.

b) Percentage-point change. 1983-1990 for Belgium, Denmark and Ireland; 1986-1990 for New Zealand.

c) Western Germany before 1991.

Source: OECD (2003), The *Sources of Economic Growth in OECD countries*, Paris.

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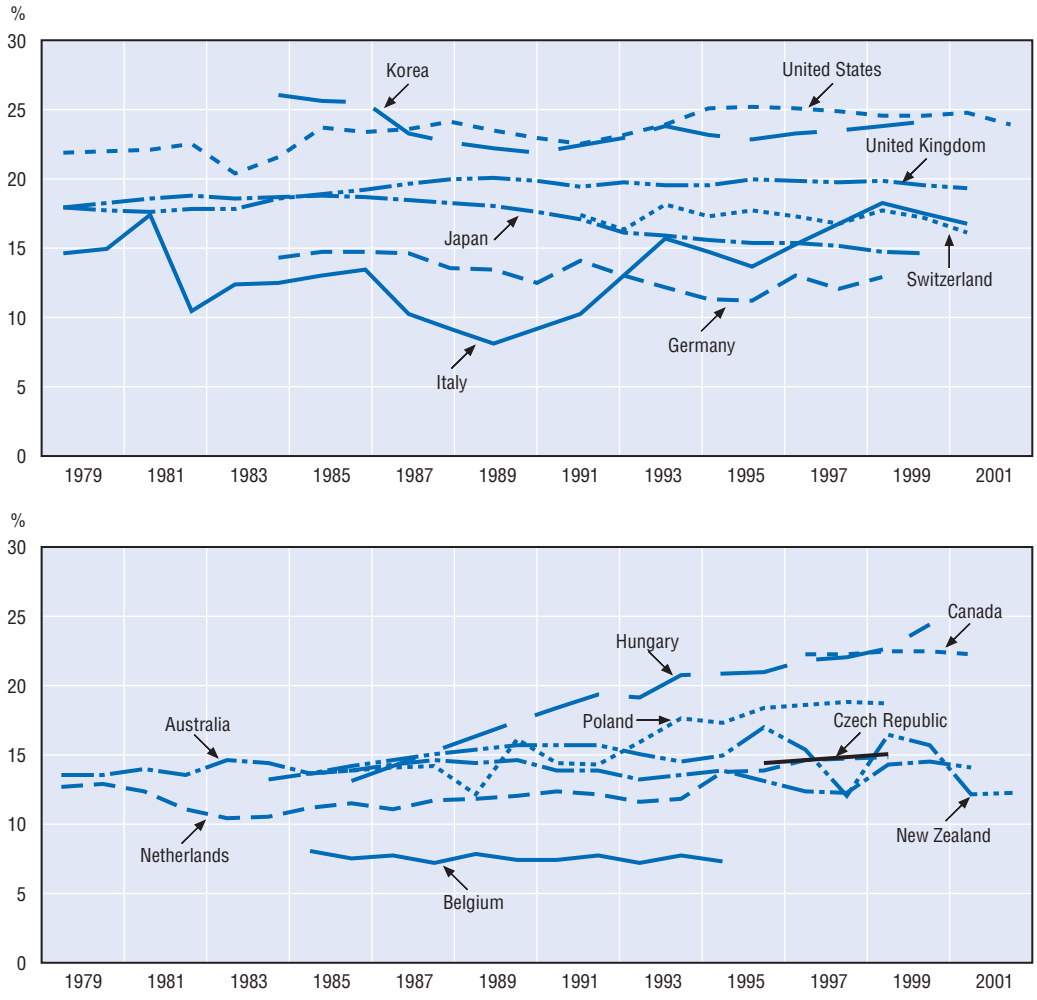
Chart 1.A1.1. **Trends in the incidence of low pay,[a, b] 1979-2001**



a) Percentage of full-time workers receiving less than two-thirds of median gross earnings.
b) Data for Italy refer to net earnings.

Source: OECD database on earnings.

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