OECD Employment Outlook

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The *OECD Employment Outlook*

Provides an annual assessment of labour market developments and prospects in member countries. Each issue contains an overall analysis of the latest labour market trends and short-term forecasts, and examines key labour market developments. Reference statistics are also included.

This year's edition of the *OECD Employment Outlook* is the joint work of staff of the Directorate for Employment, Labour and Social Affairs, and the Economics Department. It has benefited from contributions from national government delegates. It is published on the responsibility of the Secretary-General of the OECD.

This report is based on draft contributions from a team led by Jean-Marc Burniaux and Paul Swaim. The team included Andrea Bassanini, Romain Duval, Pascal Marianna, Flavio Padrini, Glenda Quintini, Anne Saint-Martin and Ann Vourc'h. Sveinbjörn Blöndal and Raymond Torres edited the report and co-ordinated the Jobs Strategy reassessment project. The assessments of countries' labour market prospects do not necessarily correspond to those of the national authorities concerned.

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STIMULER L'EMPLOI ET LES REVENUS

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Table of Contents

Editorial – Boosting Jobs and Incomes 11

Chapter 1. **Short-term Labour Market Prospects and Introduction to the OECD Jobs Strategy Reassessment** 15

Introduction 16
1. Recent labour market developments and prospects 16
Economic outlook to the year 2007 16
Employment and unemployment 18
Real compensation 20
2. Reassessing the OECD Jobs Strategy 23
Purpose and scope of the reassessment 23
How this issue of the *OECD Employment Outlook* contributes to the reassessment of the 1994 Jobs Strategy 27

Chapter 2. **Labour Market Performance since 1994 and Future Challenges** 29

1. Aggregate labour market performance 30
2. Labour market performance for particular groups 34
3. Trends in income distribution and working conditions since 1994 38
4. The current situation and future challenges 42

Notes 44

Chapter 3. **General Policies to Improve Employment Opportunities for All** 47

1. Macroeconomic policy and labour market performance 49
1.1. Inflation and monetary policy 49
1.2. Fiscal policy 52
1.3. Coordination of macroeconomic and structural policies 53
2. Impact of welfare systems and labour market programmes on participation and employment 56
2.1. Unemployment benefits and the incentive to find a job 56
2.2. The combined impact of social protection benefits and taxes on labour supply and policies to make work pay 63
2.3. Active labour market programmes and strategies for activating the unemployed 68
2.4. Policy issues related to welfare benefits that typically have not been conditional on availability for work 75
3. Impact of wage-setting, taxes and labour- and product-market regulations on labour demand and employment 80
3.1. Wage-setting institutions and policies 80
3.2. Taxation of labour income 88
3.3. Employment protection legislation 95
3.4. Working-time arrangements 100
3.5. Product market regulations 104

4. Lifelong learning and training policies 107
4.1. The policy challenge 108
4.2. Implications for policy 111
Notes 117

Chapter 4. **Policies Targeted at Specific Workforce Groups or Labour Market Segments** 127

1. Promoting employment prospects of under-represented groups 128
1.1. Measures to increase participation of women 128
1.2. Measures to increase participation of older people 131
1.3. Promoting employment prospects of youth 136
1.4. Promoting employment prospects of immigrants 142
2. Assisting workers in disadvantaged regions 147
3. Facilitating transitions from informal work to formal employment 152
Notes 155

Chapter 5. **Social Implications of Policies Aimed at Raising Employment** 157

1. Trends in income inequality and poverty: the link to changes in labour market performance 158
1.1. Income inequality and changes in unemployment and employment 162
1.2. Poverty incidence and persistence over the 1990s: overall and for specific groups 166
1.3. Impact of labour market institutions on household income inequality and poverty 169
1.4. Conclusion 169
2. Implications for job stability and career paths 170
2.1. Temporary jobs: evidence and policy implications 170
2.2. Low-pay incidence: patterns and policy significance 174
Notes 180

Chapter 6. **Understanding Policy Interactions and Complementarities, and their Implication for Reform Strategies** 183

1. Labour market policies and institutions and the macroeconomic environment 184
1.1. The interaction between macroeconomic shocks and labour market policies and institutions 184
1.2. Labour market reforms improve the macroeconomic and public finance performance 186
2. Policy interactions and packages 190
2.1. Existing policy packages and employment performance 190
2.2. Policy interactions 192
3. Political economy of reforms 194
3.1. Distributional and timing effects 194
3.2. The role of policy design in overcoming adverse distributional and timing effects 196
Notes 200

Annex 6.A1. Principal Component Analysis of Policy Packages and Employment Performance 202

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Chapter 7. **Reassessing the Role of Policies and Institutions for Labour Market Performance: A Quantitative Analysis** 207

Introduction and main findings 208
1. The determinants of structural unemployment 209
1.1. Policies, institutions and unemployment: baseline results 210
1.2. Additional determinants of unemployment patterns: minimum wages, active labour market programmes, and housing policy 216
1.3. Interactions between institutions and shocks 218
2. Group-specific employment rates 220
2.1. Prime-age men and women 221
2.2. Older workers 223
2.3. Younger workers 224
2.4. Summing up policy influences on employment rates 225

Notes 227

Annex 7.A1. Baseline Regression Models 230

Bibliography 233

Statistical Annex 245

List of boxes

Chapter 1

1.1. The 1994 OECD Jobs Strategy 24
1.2. OECD Growth Study: the role of education, innovation and entrepreneurship 25
1.3. OECD Study of Trade and Structural Adjustment and its follow up 26

Chapter 3

3.1. Overall reform effort and economic performance 50
3.2. Monetary policy can bring forward the benefits of structural reforms: an illustration for the euro area 54
3.3. EPL lessons from Austria and the Netherlands 99

Chapter 4

4.1. The reform of vocational education and training in Norway 140

Chapter 5

5.1. Non-wage benefits: an important dimension of job quality contributing to traps 171

Chapter 6

6.1. The macroeconomic and public finance impact of labour market reforms: a review of selected studies 188
6.2. The quality of industrial relations and the political feasibility of structural reforms: selected examples of Denmark, Ireland and the Netherlands 197
6.3. Reforming at the margin to pave the way for further policy changes: the EPL reforms in Portugal and Spain 198

6.4. Smoothing political opposition by implementing reform gradually and through balanced approaches: the reform of unemployment insurance in Denmark 198
6.5. Co-ordinated reforms in the United Kingdom and New Zealand in the 1980s and early 1990s 199

Annex 6.A1

6.A1.1. Principal component analysis: methodological issue 203

Chapter 7

7.1. The econometric model 210
7.2. Interactions among policies and institutions in the standard wage-setting/price-setting model. 215
7.3. Disentangling amplification and persistence effects of macroeconomic shocks 219

List of tables

Chapter 1

1.1. Growth of real GDP in OECD countries. 17
1.2. Employment and labour force growth in OECD countries 19
1.3. Unemployment in OECD countries. 21
1.4. Real compensation per employee in the business sector in OECD countries 22

Chapter 2

2.1. Labour market performance in the OECD area, 1994-2004 31

Chapter 3

3.1. Unemployment benefit systems: policy reforms over the 1994-2004 period 58
3.2. Net replacement rates and unemployment insurance benefit duration in 26 OECD countries, 2004 60
3.3. Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: unemployment benefits. 61
3.4. Active labour market programmes (ALMPs): policy reforms over the 1994-2004 period 70
3.5. Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: active labour market programmes (ALMPs) 72
3.6. Employment rates and benefit dependency rates in the working-age population 77
3.7. OECD summary indicators for bargaining centralisation and co-ordination since 1970 81
3.8. Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: union density and bargaining coverage 84

3.9. Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: centralisation and co-ordination of wage bargaining 85
3.10. Ratio of employers' labour costs for minimum wage workers relative to median wage workers in the 21 OECD countries with statutory minima, 1997, 2000, 2004 87
3.11. Labour taxes and social security contributions: policy reforms over the 1994-2004 period 89
3.12. Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: labour tax wedges 93
3.13. Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: employment protection legislation (EPL) 98
3.14. Education and training leave schemes in selected OECD countries 116

Chapter 4

4.1. Determinants of full- and part-time female employment, 1982-2003 131
4.2. Determinants of older worker employment (55-64 age group), 1982-99 133
4.3. Early-retirement, invalidity and old-age pension schemes: policy reforms over the 1994-2004 period 135
4.4. Unemployment rates of the native- and foreign-born populations, 15-64 years old, 2004 144
4.5. Employment rates of native- and foreign-born populations, 15-64 years old, 1994 and 2004 145
4.6. Housing tenure in the early 2000s 152

Chapter 5

5.1. Trends of unemployment and overall income inequality 160
5.2. Trends of unemployment and relative poverty 161
5.3. Real income growth associated with relative poverty thresholds 161
5.4. Trends of unemployment and gross earnings inequality across full-time workers 162
5.5. Trends of unemployment and labour earnings inequality across all households 163
5.6. Trends of unemployment and transfers' redistributive impact 163
5.7. Trends of unemployment and taxes' redistributive impact 164
5.8. Correlations of inequality and relative poverty measures with indicators of labour market performance, 1970-2001 165
5.9. Typology of relative poverty dynamics across OECD countries 166

Chapter 6

6.1. Interactions between policies/institutions and macroeconomic shocks 186
6.2. Medium-term impact of a 1 percentage-point reduction in structural unemployment on potential growth and budget balance 189
6.3. Four different regimes of labour market functioning 191
6.4. Simulated effect of reform complementarities 193

Annex 6.A1

6.A1.1. Explained variance 204

Chapter 7

7.1. Institutions and policies change the cumulated unemployment cost of adverse macroeconomic shocks 221

Annex 7.A1

7.A1.1. Baseline unemployment rate equations, 1982-2003 230
7.A1.2. Baseline employment rate equations, 1982-2003 231

Statistical Annex

A. Standardised unemployment rates in 27 OECD countries 247
B. Employment/population ratios, activity and unemployment rates 248
C. Employment/population ratios, activity and unemployment rates by selected age groups 251
D. Employment/population ratios, activity and unemployment rates by educational attainment, 2004 260
E. Incidence and composition of part-time employment 263
F. Average annual hours actually worked per person in employment 265
G. Incidence of long-term unemployment 267
H. Public expenditure and participant stocks in labour market programmes in OECD countries 270

List of figures

Chapter 2

2.1. Unemployment rates in OECD countries, 1994 and 2004 31
2.2. Employment and participation rates in OECD countries, 1994 and 2004 32
2.3. Labour productivity growth in OECD countries, 1984-2004 33
2.4. Labour utilisation in OECD countries, 1994 and 2004 33
2.5. Relative participation rates for particular groups, 1984-2004 35
2.6. Relative unemployment rates for particular groups, 1984-2004 37
2.7. Regional unemployment disparities in 1993 and 2003 39
2.8. Gross earnings inequality in 1994 and 2003 40
2.9. Household income inequality and relative poverty in 1994 and 2001 41
2.10. Trends in job quality 42
2.11. Baseline projection of population ageing, 1994-2050 43

Chapter 3

3.1. Evolution of inflation rates across OECD countries, 1984-2004 51
3.2. Evolution of government structural budget balances across OECD countries, 1984-2004 52
3.3. Financial returns to work for unemployed, inactive and low-paid individuals, 2002 64
3.4. Composition of active spending in the OECD area, 1985-2002 71
3.5. Trends in benefit recipiency, 1980-99 76
3.6. Trends in wage dispersion since 1970 83
3.7. Evolution of tax wedges for different earnings levels and family types 90
3.8. Evolution of value-added taxes, 1994-2003 92

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3.9. Overall summary index of EPL strictness and its three main components, 2003 96
3.10. Changes in EPL strictness since the late 1980s 97
3.11. Work situation of couple families with a child under 6, 1985-2002 103
3.12. Evolution and dispersion in regulatory environments, 1980-2003 105
3.13. Country groupings based on confidence intervals for the PMR indicators, 2003 106
3.14. Sources of changes in the OECD average PMR indicator, 1998-2003 106
3.15. Impact of prior training on the probabilities of unemployment and participation 109
3.16. Differences in training for selected groups 110
3.17. Impact of training on the employment prospects of different labour market groups 111

Chapter 4

4.1. Work incentives for women 129
4.2. Older worker participation and overall unemployment in OECD countries, 2004 132
4.3. Implicit tax embedded in early-retirement schemes on continuing work from age 60 to age 65, 1993-2003 134
4.4. Youth employment rates relative to those of adults, 1994 and 2004 137
4.5. Share of youth leaving school without a qualification in OECD countries, 2003 138
4.6. Share of young adults and teenagers neither in education nor in employment, 1996 and 2003 139
4.7. Differences between the PISA reading scores of natives and those of children of immigrants, youth aged 15 years, 2003 146
4.8. Regional dispersion in labour market performance within OECD countries, 2003 148
4.9. Regional unemployment dispersion and the overall unemployment rate, 2003 149
4.10. Internal migration rates, 2003 151

Chapter 5

5.1. Indicators of income inequality and relative poverty, 2001 159
5.2. Relative poverty risk profile by age group, 1994-2001 167
5.3. Relative poverty risks by working status, 1994-2001 168
5.4. Changes in the incidence of temporary employment and unemployment/employment rates, 1994-2004 172
5.5. One-year transition rates to non-employment of temporary and permanent workers, 1998-2001 averages 173
5.6. Temporary employment and the job loss rate 174
5.7. Evolution of the incidence of low-paid work since the mid-1990s 175
5.8. Changes in the incidence of low pay and unemployment/employment rates, 1994-2004 176
5.9. Risk of low-pay/no-pay traps 177

5.10. Share of low-educated workers receiving low pay or no pay for selected countries, early 2000s 179

Chapter 6

6.1. Unemployment, growth and public finances 186

Annex 6.A1

6.A1.1. A synthetic picture of heterogeneity in the policy settings and performance of labour markets 204

Chapter 7

7.1. Correlations between the unemployment rate and selected institutions and policies 211
7.2. Unemployment benefits, tax wedges, product market competition and the structure of collective bargaining significantly affect unemployment 212
7.3. The evolution of unemployment is well explained by policy reforms 214
7.4. Active labour market programmes can significantly modify the impact of unemployment benefits on the unemployment rate 217
7.5. The unemployment effects of macroeconomic shocks are shaped by existing policies and institutions. 220
7.6. The impact of policies and institutions on employment rates vary across demographic groups. 222
7.7. Unemployment benefits, tax wedges and several group-specific policies have an unambiguous effect on the aggregate employment rate 226

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Editorial

Boosting Jobs and Incomes

In the early 1990s, many OECD countries were struggling with high and persistent unemployment. In order to assist them, the OECD released its wide-ranging Jobs Strategy. This had a major impact on the policy debate. While it had its critics, the record shows that those countries which implemented its recommendations outperformed those who did not.

But time passes and challenges evolve. While some countries still need to cut unemployment, especially in continental Europe, new questions loom. How can OECD labour markets cope with population ageing and globalisation? What has been learned from implementing the Jobs Strategy recommendations in terms of what works and what does not? The OECD has recently carried out a comprehensive reassessment of the Jobs Strategy. The empirical results are presented in this issue of the *Employment Outlook*, and the policy recommendations are summarised in a companion volume.*

Many of the policy recommendations are unchanged from the original Jobs Strategy: they have stood the test of time and relevance. But the reassessment has also yielded new insights and policy lessons. We would like to highlight seven of them.

First, new evidence shows that so-called "activation/mutual obligations" approaches can co-exist with relatively generous unemployment benefits while providing strong incentives for the unemployed to find work. What is needed is a judicious mix of incentives. This includes effective re-employment services to help the unemployed find a new job, as well as adequate monitoring of the job-search efforts of the unemployed to ensure that they are actively looking for work, backed up by the threat of graduated benefit sanctions.

As many countries have managed to cut their unemployment rolls by applying such approaches, a new problem has emerged. Large numbers of people of working age are now drawing other non-employment benefits, *e.g.* sickness/disability, lone-parent and early retirement benefits. Some countries are experimenting with different activation approaches to help many of these people to find work. It will be a priority for the future to monitor these efforts closely to determine what works and why.

Second, it is vital to remove existing barriers to labour force participation among women, older workers and under-represented groups more broadly. As regards women, several family-friendly policies have shown their worth. They include flexible working patterns, appropriate tax incentives, adequate but not overly long paid parental leave, good-quality, affordable child care and more sharing of caring responsibilities between men and women. Concerning older workers, remaining disincentives to continued work embedded in old-age pension systems and various pathways into early retirement need to be removed.

Third, it is time to grasp the nettle of employment security *versus* flexibility. Too often, countries have opted to ease the conditions governing temporary jobs while leaving those governing permanent jobs unchanged. While this may deliver some short-term job gains,

* See OECD (2006), "Boosting Jobs and Incomes: policy lessons from reassessing the OECD Jobs Strategy", free policy report, available on-line at *www.oecd.org/els/employmentoutlook/policylessons*, Paris.

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it leads to growing duality in labour markets and hinders investment in training, and thereby productivity growth. Fortunately, there are better alternatives to hand. One such is so-called "flexicurity", but there are others such as the Austrian individual savings accounts. These have the merit of guaranteeing much greater predictability to employers concerning the costs of hiring and firing while providing essential income security to workers who are laid off.

Fourth, policies to expand labour demand are crucial. This involves pricing back into employment the lower-skilled who are excluded by tax, social contribution or institutional arrangements. Also, and quite unambiguously, policies to stimulate product market competition will open up many new jobs, especially in services. This holds in particular for continental Europe and Japan.

Fifth, effective lifelong learning has great potential to help workers adjust to changing skill demands and aspire to better-paid jobs. There is much to be done in schools, as the PISA (Programme for International Student Assessment) results show. But learning must continue during working life. Here there are many obstacles to overcome. One task is to ensure that training markets function better. Another is to ensure that there are sufficient financial incentives for firms and workers to invest more in on-the-job training. Co-financing can help a lot here. And it is also important to reduce the time constraints which impede the take up of training, *e.g.* by well-designed training leave schemes.

Sixth, macroeconomic policy plays a crucial role. Stability-oriented macroeconomic policy reduces cyclical output fluctuations, thereby minimising the risk that any temporary decline in employment may have more permanent effects. Macroeconomic policies can also interact positively with structural reforms in order to bring forward the gains in terms of higher output and employment. In this way, they can strengthen the political support for difficult structural reforms.

Finally, experience shows that there is no single golden road to better labour market performance. There is more than one model of success to hand from which to take inspiration to fit specific national circumstances and history. However, this does not imply that anything goes. The successful performers share some common features, not least an emphasis on macroeconomic stability, adequate incentives for all labour market participants and strong product market competition.

It is now vital for the lagging countries to take heart and implement the necessary reforms. The costs of inaction are too high in terms of continued unsatisfactory labour market performance. The successes achieved by some OECD countries show what can be done if there is sufficient political will to reform.

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Paris, 23 May 2006

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Chapter 1

Short-term Labour Market Prospects and Introduction to the OECD Jobs Strategy Reassessment

Is the employment situation improving in OECD countries? Despite geopolitical tensions, large current account imbalances and soaring oil prices, economic growth is showing resilience in the OECD area and sustained moderate employment growth is projected to continue through 2007. As a result, unemployment rates should continue to ease, gradually reversing the rise in unemployment that accompanied the world economic slowdown earlier this decade. Despite improving business cycle conditions, approximately one-third of the working-age population is still either unemployed or inactive, on average, in the OECD area. This highlights the importance of a comprehensive employment strategy, such as that proposed in the 1994 OECD Jobs Strategy. Why does this strategy need to be updated in light of subsequent policy successes and failures and upcoming challenges?

Introduction

Although the world economic outlook is subject to many uncertainties, economic conditions are projected to continue to improve in the OECD area during the next two years and unemployment rates to continue to fall in most OECD countries. Nonetheless, it is projected that more than 34 million persons will still be unemployed in 2007. Section 1 of this chapter surveys recent economic developments and prospects, with particular emphasis on labour markets. Section 2 of the chapter then explains the rationale for re-assessing the 1994 OECD Jobs Strategy, as well as how this issue of the *OECD Employment Outlook* contributes to that reassessment.

1. Recent labour market developments and prospects

Economic growth in the OECD area is showing considerable resilience in an environment characterised by geopolitical tensions, large current account imbalances and high and volatile energy prices. Growth rates slowed modestly in 2005 in the majority of OECD countries, but OECD projections foresee some improvement during 2006-07, particularly in OECD Europe, where growth has been more sluggish on average than in other member countries. OECD employment growth is projected to remain modest during 2006-07, averaging just over one per cent per annum, while unemployment is projected to continue to recede gradually, due in part to relatively slow labour force growth. The growth in average real compensation per employee accelerated slightly in 2005 to about 1½% – still below the growth in labour productivity – and is projected to remain broadly stable through 2007.

The following sections present a summary of the assessment of the economic situation and short-term outlook in OECD countries contained in the May 2006 edition of the *OECD Economic Outlook*. The implications for employment, unemployment and labour compensation receive particular attention.

Economic outlook to the year 2007

In 2005, real GDP growth averaged 2.8% in the OECD area as a whole, down from 3.3% in 2004 (Table 1.1). In most countries, growth slowed only moderately against the backdrop of natural disasters, current account imbalances that have reached unprecedented heights and surging prices of oil and other raw materials. Despite the inflationary impulse from rising raw material prices, overall price stability was maintained without compromising activity. In sum, the current upswing appears to be well established, thanks in part to the impetus provided by the United States and large and strongly growing Asian economies, notably China.

Among the largest OECD economies, economic growth was fastest in 2005 in the United States, where economic growth continued to benefit from strong domestic demand growth led by household consumption and business investment. The strong expansion in the United States and non-OECD Asia helped sustain solid economic growth in Australia,

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Table 1.1. **Growth of real GDP in OECD countries**[a, b]

Percentage change from previous period

	Share in total OECD GDP 2000	Average 1993-2003	2004	2005	Projections	
					2006	2007
North America						
Canada	3.2	3.5	2.9	2.9	3.1	3.3
Mexico	3.3	2.7	4.2	3.0	4.1	3.7
United States	36.0	3.2	4.2	3.5	3.6	3.1
Asia						
Japan	11.9	1.0	2.3	2.7	2.8	2.2
Korea	2.8	5.3	4.7	4.0	5.2	5.3
Europe						
Austria	0.8	2.3	2.6	2.0	2.5	2.2
Belgium	1.0	2.2	2.4	1.5	2.5	2.4
Czech Republic	0.5	2.3	4.7	6.0	5.7	4.7
Denmark	0.6	2.5	1.9	3.1	3.0	2.4
Finland	0.5	3.6	3.5	2.2	3.4	2.8
France	5.8	2.2	2.1	1.4	2.1	2.2
Germany	7.7	1.6	1.1	1.1	1.8	1.8
Greece	0.7	3.4	4.7	3.7	3.7	3.6
Hungary	0.5	3.6	4.5	4.3	4.6	4.4
Iceland	0.0	3.5	8.2	5.6	4.1	1.4
Ireland	0.4	8.0	4.5	4.6	5.0	5.0
Italy	5.4	1.7	0.9	0.1	1.4	1.3
Luxembourg	0.1	4.7	4.2	4.0	4.5	4.5
Netherlands	1.7	2.6	1.7	1.1	2.4	2.8
Norway	0.6	3.3	3.1	2.3	2.6	2.7
Poland	1.5	4.5	5.3	3.3	4.4	4.6
Portugal	0.7	2.7	1.1	0.3	0.7	1.5
Slovak Republic	0.2	4.5	5.5	6.0	6.3	6.3
Spain	3.1	3.5	3.1	3.4	3.3	3.0
Sweden	0.9	2.9	3.2	2.7	3.9	3.3
Switzerland	0.8	1.3	2.1	1.9	2.4	1.8
Turkey	1.7	2.7	8.9	7.4	6.1	6.4
United Kingdom	5.5	3.0	3.1	1.8	2.4	2.9
Oceania						
Australia	1.9	3.9	3.2	2.6	2.9	3.7
New Zealand	0.3	3.7	4.3	1.9	1.3	1.9
OECD Europe	**40.6**	**2.5**	**2.5**	**2.0**	**2.6**	**2.6**
EU-15	**34.8**	**2.3**	**2.0**	**1.5**	**2.2**	**2.2**
EU-19	**37.5**	**2.7**	**2.3**	**1.7**	**2.4**	**2.4**
Total OECD	**100.0**	**2.7**	**3.3**	**2.8**	**3.1**	**2.9**

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/dataoecd/47/9/36462096.pdf*).

b) Aggregates are computed on the basis of 2000 GDP weights expressed in 2000 purchasing power parities.

Source: OECD (2006), *OECD Economic Outlook*, No. 79, May. Statlink: *http://dx.doi.org/10.1787/467806521426*

Canada Japan, Korea and Mexico. Growth in OECD Europe in 2005 was supported by low long-term interest rates, euro depreciation and buoyant export markets, whereas domestic demand is still growing below trend. However, growth performance was quite uneven within Europe, with Belgium, France, Germany, Italy, the Netherlands and Portugal

registering real GDP growth of 1.5% or less, while other European countries recorded stronger growth. Turkey continued to record strong growth in 2005, at 7.4%. Growth was also quite robust in new members of the European Union – the Czech Republic, Hungary, Poland and the Slovak Republic.

OECD projections for 2006 and 2007 indicate little change in the average growth rate in the OECD area, but some tendency for the economic expansion to broaden as growth gains momentum in Europe, where it has been overall somewhat sluggish. The economic expansion is projected to remain vigorous in the United States, at 3.6% in 2006, despite some recent tightening of monetary policy. The recovery in Japan should strengthen further, as household demand becomes more dynamic, with 2.8% growth projected for 2006. As an oil exporting country, Mexico benefits from high oil prices and is projected to grow at a nearly 4% rate in 2006 and 2007. Australia, Canada and Korea should continue to benefit from the strong expansion in China and in Asia overall and their economies are expected to grow by 3% or more in 2006. The average growth rate in OECD Europe will increase to 2.6% in 2006, narrowing but not fully closing the growth-rate gap with the United States. Growth rates will remain uneven across European countries. Ireland, Spain, the United Kingdom, most eastern European countries and Nordic countries will continue to record relatively strong growth, albeit slowing in 2007 in some of these countries. In contrast, growth is projected to be less vigorous in Germany, Italy and Portugal, where domestic demand growth remains weak.

These projections are associated with considerable downside uncertainties, such as the risks of further increases in energy prices, worsening current account imbalances and falling housing prices amid higher long-term interest rates. Indeed, a cooling down of housing prices contributed to slower growth in Australia and the United Kingdom in 2005. More positively, high levels of corporate profitability across the OECD area may entail favourable surprises for capital formation, employment and growth.

Employment and unemployment

In 2005, employment continued to grow at a moderate 1.1% rate in the OECD as a whole (Table 1.2). Employment growth tended to be moderate even in a number of countries recording strong economic growth, due to rising labour productivity. Nonetheless, employment growth is outpacing labour force growth in the majority of OECD countries and unemployment rates are receding, even though they are still higher than their levels prior to the global downturn of 2000-01 in many countries. In the United States, employment growth accelerated in 2005 to 1.8%, even as GDP growth slowed, signalling at least a pause in what had been very rapid labour productivity growth. Employment growth was above 3% in Australia, Iceland, Ireland, and Spain in 2005. Despite the rebound in economic growth in Japan, employment growth was very modest at 0.4%, yet still outpaced labour force growth. Employment fell in Mexico in 2005, despite 3% output growth, and in Germany and the Netherlands, where real GDP growth was only about 1%. Employment was virtually unchanged in 2005 in Hungary (despite vigorous economic growth), Portugal and Switzerland. Weak economic growth in Belgium, France and Italy also translated into a low rate of employment growth in these countries.

On average for the OECD area, employment growth is projected to increase modestly to 1.3% in 2006, and then to fall back to 1.1% in the following year. The average rate of employment growth is also projected to remain little changed in OECD Europe, but to become somewhat more even across the 23 countries in this region. Employment growth is

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Table 1.2. **Employment and labour force growth in OECD countries**[a]

Percentage change from previous period

	Employment						Labour force					
	Level 2004 (000s)	Average 1993-2003	2004	2005	Projections 2006	Projections 2007	Level 2004 (000s)	Average 1993-2003	2004	2005	Projections 2006	Projections 2007
North America												
Canada	15 949	2.0	1.8	1.4	1.7	1.6	17 183	1.6	1.3	0.9	1.3	1.4
Mexico	41 272	2.4	3.9	–0.7	2.3	2.5	42 566	2.3	4.5	–0.2	2.1	2.5
United States	139 244	1.4	1.1	1.8	1.6	1.0	147 386	1.3	0.6	1.3	1.2	1.0
Asia												
Japan	63 290	–0.2	0.2	0.4	0.4	0.3	66 425	0.1	–0.4	0.1	0.0	–0.3
Korea	22 557	1.4	1.9	1.3	1.3	1.0	23 417	1.5	2.0	1.4	1.2	0.9
Europe												
Austria	4 112	0.5	–0.3	0.3	0.6	0.6	4 360	0.5	–0.2	0.5	0.6	0.7
Belgium	4 216	0.7	0.6	0.9	0.9	0.9	4 601	0.7	0.8	0.6	0.2	0.6
Czech Republic	4 684	–0.2	–0.3	1.4	0.7	0.3	5 110	0.1	0.3	1.0	0.4	0.1
Denmark	2 751	0.7	0.0	0.6	0.7	0.5	2 910	0.3	0.2	0.0	0.0	0.2
Finland	2 356	1.3	0.0	1.5	1.5	0.5	2 584	0.5	–0.2	1.1	0.9	0.3
France	24 687	1.2	0.0	0.4	0.4	0.5	27 420	0.9	0.2	0.2	0.0	0.2
Germany	38 868	0.3	0.4	–0.2	0.2	0.7	42 799	0.5	0.9	–0.3	–0.5	0.3
Greece	4 093	0.7	2.9	1.3	1.3	1.3	4 599	0.8	3.7	0.6	0.8	0.9
Hungary	3 856	0.3	–0.6	0.0	0.9	0.7	4 109	–0.4	–0.3	1.2	0.8	0.6
Iceland	156	1.4	–0.5	3.3	2.6	0.7	161	1.2	–0.8	2.8	2.1	0.7
Ireland	1 865	4.2	3.0	4.7	2.9	2.4	1 952	2.8	2.8	4.6	2.9	2.5
Italy	22 147	0.7	1.5	0.7	0.6	0.4	24 102	0.6	1.0	0.4	0.6	0.2
Luxembourg	198	1.8	1.3	1.8	2.0	2.2	207	2.0	1.8	2.3	2.4	1.7
Netherlands	8 140	1.8	–1.0	–0.6	1.5	1.3	8 562	1.6	–0.5	–0.3	0.5	0.5
Norway	2 275	1.2	0.3	0.6	1.6	1.0	2 382	1.1	0.3	0.7	1.0	0.8
Poland	13 795	–0.9	1.3	2.3	2.3	2.4	17 025	–0.2	0.5	0.8	1.1	1.1
Portugal	5 087	1.0	0.1	0.1	0.5	0.9	5 452	1.1	0.5	1.2	0.8	0.7
Slovak Republic	2 170	. .	0.3	2.1	1.9	1.3	2 651	. .	1.0	–0.3	1.0	0.5
Spain	18 100	3.5	3.9	4.8	4.1	3.1	20 234	2.7	3.3	3.2	3.6	3.0
Sweden	4 213	0.7	–0.4	1.0	1.6	1.1	4 460	0.3	0.2	1.3	0.5	0.5
Switzerland	4 178	0.5	0.3	0.1	0.9	1.0	4 362	0.5	0.5	0.2	0.6	0.5
Turkey	22 291	1.3	3.0	1.1	1.8	1.9	24 790	1.5	2.7	1.1	1.9	2.1
United Kingdom	28 465	1.1	1.0	1.0	0.3	0.8	29 884	0.5	0.7	1.0	0.8	0.7
Oceania												
Australia	9 694	2.1	1.9	3.5	2.0	1.2	10 265	1.6	1.4	2.9	1.6	1.2
New Zealand	2 017	2.3	3.4	2.8	0.6	0.0	2 099	1.8	2.6	2.6	1.2	0.7
OECD Europe[b]	222 703	**0.9**	**1.1**	**1.0**	**1.1**	**1.2**	244 717	**0.8**	**1.0**	**0.7**	**0.8**	**0.9**
EU-15	169 298	**1.1**	**0.9**	**0.9**	**0.9**	**1.1**	184 126	**0.9**	**1.0**	**0.7**	**0.6**	**0.8**
EU-19[b]	193 803	**0.9**	**0.9**	**1.0**	**1.0**	**1.1**	213 021	**0.7**	**0.9**	**0.7**	**0.7**	**0.8**
Total OECD[b]	516 726	**1.1**	**1.3**	**1.1**	**1.3**	**1.1**	554 058	**1.0**	**1.1**	**0.8**	**1.0**	**0.9**

. .: Data not available.

a) See note *a)* to Table 1.1.

b) Aggregates for 1993-2003 exclude the Slovak Republic.

Source: OECD (2006), *OECD Economic Outlook*, No. 79, May.

Statlink: *http://dx.doi.org/10.1787/322526415438*

projected to exceed 2% in only four of these countries in 2006 (Iceland, Ireland, Poland and Spain), while employment growth is projected to fall to 0.3% in the United Kingdom, despite a modest acceleration of real GDP growth. Employment growth in the United States

is projected to gradually decelerate to 1% in 2007, and more sharply in New Zealand. Among non-European OECD countries, employment growth rates are projected to exceed 1% per year during 2006-07 in Australia, Canada and Mexico.

The number of unemployed persons in the OECD area declined by one million between 2004 and 2005 (Table 1.3). That left 6.5% of the labour force, representing more than 36 million persons, without a job. Unemployment rates evolved quite differently last year in different OECD countries. Unemployment rates declined in 17 countries, including Australia, Canada, Denmark, Finland, Greece, Iceland, Japan, Spain and the United States, and, from higher levels, Poland and the Slovak Republic. By contrast, the unemployment rate rose in ten countries, including Hungary, Luxembourg, Mexico, Portugal and Sweden.

Unemployment is projected to continue declining during 2006 and 2007 for the OECD area as a whole, producing a cumulative decline of two million persons and bringing the unemployment rate down to 6% at the end of the projection period. The unemployment rate in OECD Europe is also projected to decline by one-half of a percentage point between 2005 and 2007, while still remaining more than two percentage points above the average for all OECD countries. Unemployment rates are projected to rise between 2005 and 2006 in only five countries (Luxembourg, New Zealand, Portugal, Turkey and the United Kingdom) and to decline or remain constant in the remaining 25 member countries. After significant declines in 2005, the unemployment rate is projected to drop further in Australia, Canada, Japan, Spain and the United States, and from higher levels in Poland and the Slovak Republic. Unemployment rates are also projected to decline a little in Korea and Mexico.

Real compensation

The growth rate of average real compensation per employee in the business sector has picked up somewhat in the OECD area, rising from an average of 1.1% in 2004 to 1.6% in 2005 (Table 1.4). This is higher than the 1.1% average rate over the period from 1993 to 2003, a decade of wage moderation, but still a little below average growth in labour productivity. OECD projections indicate that the pace of real compensation growth will stabilise in 2006 and then rise to 1.9% in 2007, as labour markets tighten. Average real compensation growth in OECD Europe was just 0.7% in 2005 and is expected to remain below 1% during 2006-07. However, the picture is quite varied across European countries, with Belgium, Germany and Spain displaying negative real compensation growth in 2005, while growth rates of 2% or higher were recorded in eight countries (the Czech Republic, Finland, Iceland, Ireland, Norway, the Slovak Republic, Sweden and the United Kingdom). Real compensation growth should slow during 2006-07 in these latter countries, whereas it will quicken in most other European countries, particularly in Belgium, Denmark, Greece, Hungary and Spain. By contrast, real compensation is projected to decline in Germany and the Netherlands during the next two years. Real compensation growth accelerated in Canada, Japan, Korea, Mexico and the United States in 2005, reaching or exceeding 1.5%. These increases are projected to slow during 2006-07 in Mexico, but to continue largely unchanged or a little higher in the other three countries. In New Zealand, real compensation growth is projected to slow progressively, from 2.9% in 2005 to 1% in 2007, as unemployment rises.

Table 1.3. **Unemployment in OECD countries**[a]

	Percentage of labour force					Millions				
	Average 1993-2003	2004	2005	Projections		Average 1993-2003	2004	2005	Projections	
				2006	2007				2006	2007
North America										
Canada	8.7	7.2	6.8	6.4	6.2	1.3	1.2	1.2	1.1	1.1
Mexico	3.1	3.0	3.5	3.3	3.3	1.1	1.3	1.5	1.4	1.5
United States	5.3	5.5	5.1	4.7	4.7	7.3	8.1	7.6	7.1	7.2
Asia										
Japan	4.0	4.7	4.4	4.0	3.5	2.7	3.1	2.9	2.7	2.3
Korea	3.7	3.7	3.7	3.6	3.5	0.8	0.9	0.9	0.9	0.8
Europe										
Austria	5.3	5.7	5.9	5.8	5.9	0.2	0.2	0.3	0.3	0.3
Belgium	8.5	8.4	8.4	8.0	7.7	0.4	0.4	0.4	0.4	0.4
Czech Republic	6.3	8.3	8.0	7.7	7.5	0.3	0.4	0.4	0.4	0.4
Denmark	5.8	5.5	4.8	4.2	3.9	0.2	0.2	0.1	0.1	0.1
Finland	12.2	8.9	8.4	7.9	7.7	0.3	0.2	0.2	0.2	0.2
France	10.8	10.0	9.9	9.5	9.2	2.8	2.7	2.7	2.6	2.5
Germany	7.6	9.2	9.1	8.5	8.1	3.1	3.9	3.9	3.6	3.5
Greece	10.5	11.0	10.4	10.0	9.7	0.5	0.5	0.5	0.5	0.5
Hungary	8.3	6.2	7.3	7.2	7.1	0.3	0.3	0.3	0.3	0.3
Iceland	3.5	3.1	2.6	2.1	2.2	0.0	0.0	0.0	0.0	0.0
Ireland	8.8	4.4	4.4	4.4	4.4	0.1	0.1	0.1	0.1	0.1
Italy	10.4	8.1	7.8	7.7	7.6	2.4	2.0	1.9	1.9	1.9
Luxembourg	2.9	4.2	4.6	5.1	5.2	0.0	0.0	0.0	0.0	0.0
Netherlands	4.8	4.9	5.0	4.1	3.4	0.4	0.4	0.4	0.4	0.4
Norway	4.3	4.5	4.6	4.0	3.8	0.1	0.1	0.1	0.1	0.1
Poland	14.9	19.0	17.7	16.8	15.7	2.6	3.0	3.1	2.9	2.8
Portugal	5.7	6.7	7.7	7.9	7.7	0.3	0.4	0.4	0.4	0.4
Slovak Republic	15.5	18.1	16.2	15.4	14.7	0.4	0.5	0.4	0.4	0.4
Spain	14.4	10.5	9.2	8.7	8.6	2.4	2.1	1.9	1.9	1.9
Sweden	6.3	5.5	5.8	4.8	4.2	0.3	0.2	0.3	0.2	0.2
Switzerland	3.4	4.2	4.3	3.9	3.5	0.1	0.2	0.2	0.2	0.2
Turkey	7.9	10.1	10.0	10.2	10.4	1.8	2.5	2.5	2.6	2.7
United Kingdom	7.0	4.7	4.8	5.3	5.2	2.0	1.4	1.5	1.6	1.6
Oceania										
Australia	7.7	5.6	5.0	4.7	4.7	0.7	0.6	0.5	0.5	0.5
New Zealand	6.5	3.9	3.7	4.3	4.9	0.1	0.1	0.1	0.1	0.1
OECD Europe[b]	**9.0**	**9.0**	**8.7**	**8.5**	**8.2**	**20.6**	**22.0**	**21.6**	**21.0**	**20.6**
EU-15	**8.8**	**8.1**	**7.9**	**7.6**	**7.3**	**15.3**	**14.8**	**14.6**	**14.1**	**13.8**
EU-19[b]	**9.3**	**9.0**	**8.7**	**8.4**	**8.1**	**18.5**	**19.2**	**18.7**	**18.1**	**17.6**
Total OECD[b]	**6.8**	**6.7**	**6.5**	**6.2**	**6.0**	**34.7**	**37.3**	**36.3**	**34.8**	**34.1**

a) See note *a)* to Table 1.1.
b) Aggregates for 1993-2003 exclude the Slovak Republic.
Source: OECD (2006), *OECD Economic Outlook*, No. 79, May.

Statlink: *http://dx.doi.org/10.1787/265384570353*

Table 1.4. **Real compensation per employee in the business sector in OECD countries**[a, b]

Percentage change from previous period

	Average 1993-2003	2004	2005	Projections	
				2006	2007
North America					
Canada	1.2	1.2	2.8	3.5	3.3
Mexico	. .	–1.7	1.5	0.9	0.9
United States	1.8	2.0	2.3	2.0	2.9
Asia					
Japan	0.2	–0.6	1.6	1.8	1.6
Korea	1.6	1.0	1.9	2.7	2.3
Europe					
Austria	0.5	1.0	0.4	0.4	0.8
Belgium	0.8	–0.4	–0.1	0.9	1.1
Czech Republic	. .	4.4	3.6	3.6	3.1
Denmark	1.1	0.9	0.0	1.3	1.7
Finland	1.5	4.0	3.2	1.3	1.3
France	0.7	1.7	1.8	1.9	2.0
Germany	0.4	–1.1	–1.1	–0.8	–1.5
Greece	2.5	0.9	1.3	2.6	2.8
Hungary	. .	6.8	0.2	2.7	3.5
Iceland	3.3	5.7	7.4	4.8	3.3
Ireland	1.1	2.4	2.4	2.5	2.1
Italy	–0.4	0.1	0.6	0.5	1.0
Luxembourg	0.8	0.1	0.5	0.6	0.9
Netherlands	0.5	2.0	0.4	–0.3	0.0
Norway	2.1	3.5	2.1	1.8	1.8
Poland	. .	–0.8	1.2	2.1	1.8
Portugal	2.0	0.4	0.4	0.4	0.5
Slovak Republic	. .	2.7	5.3	3.0	3.8
Spain	0.0	–0.1	–1.0	0.0	0.5
Sweden	2.4	2.9	3.1	1.8	1.6
Switzerland	1.1	1.2	0.6	0.7	0.9
Turkey	. .	. .	. .	. .	. .
United Kingdom	2.0	2.2	2.0	1.9	1.9
Oceania					
Australia	1.3	4.3	2.1	2.5	2.4
New Zealand	0.7	2.6	2.9	1.5	1.0
OECD Europe[c]	**0.8**	**0.8**	**0.7**	**0.9**	**0.9**
EU-15	**0.7**	**0.7**	**0.6**	**0.7**	**0.7**
EU-19[c]	**0.8**	**0.8**	**0.7**	**0.9**	**0.9**
Total OECD less high-inflation countries[c, d]	**1.0**	**1.2**	**1.5**	**1.5**	**1.8**
Total OECD[c]	**1.1**	**1.1**	**1.6**	**1.5**	**1.9**

. .: Data not available.

a) See note *a)* to Table 1.1.

b) Compensation per employee in the business sector is deflated by a price deflator for private final consumption expenditures and aggregates are computed on the basis of 2000 GDP weights expressed in 2000 purchasing power parities.

c) Countries shown.

d) High inflation countries are defined as counties which had 10 per cent or more inflation in terms of GDP deflator on average between 1993 and 2003 on the basis of historical data. Consequently, Hungary, Mexico and Poland are excluded from the aggregate.

Source: OECD (2006), *OECD Economic Outlook*, No. 79, May. Statlink: *http://dx.doi.org/10.1787/407478814888*

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2. Reassessing the OECD Jobs Strategy

Purpose and scope of the reassessment

In 2003, a meeting of OECD Labour and Employment Ministers concluded that, nearly ten years after its formulation, it was timely to reassess the OECD Jobs Strategy (Box 1.1). In order to judge how well it had performed in practice and whether it was in need of any modification, ministers requested that the OECD Secretariat review the 1994 Jobs Strategy policy framework in the light of new knowledge, which has accumulated in the interim, as to what works well and what does not. Ministers also requested that emerging policy concerns which were not at the centre of the Jobs Strategy priorities in 1994 be taken into account, particularly the challenges raised by population ageing. In this latter context, the fact that approximately one-third of the working-age population is either unemployed or (in even larger numbers) inactive in OECD countries on average was emphasised as a particular challenge. Ministers also emphasised the importance of promoting career prospects and job quality for disadvantaged groups. More fundamentally, the question was raised as to why countries with apparently different institutions and policy settings could achieve similarly high employment rates.

This issue of the *OECD Employment Outlook* provides a broad reassessment of the OECD Jobs Strategy. However, its scope is limited to policy areas which have the strongest bearing on labour market performance, namely, macroeconomic policy, structural reforms in the labour market and policies to strengthen product-market competition. Other policy areas that were covered in the 1994 Jobs Strategy and are central in growth-oriented policies, such as innovation policy, initial education and entrepreneurship, will not be examined in detail here since they were addressed extensively as part of the OECD Growth Project, which was completed in 2003 and published under the title *The Sources of Economic Growth in OECD Countries*. Growth-enhancing policies continue to receive sustained attention in follow-up work being conducted by the OECD Secretariat. Box 1.2 provides a brief overview of this work.

International trade and investment patterns are evolving rapidly and having a considerable impact on OECD national labour markets. In particular, the rapid integration of China and other major emerging economies into world markets is having a large impact on the international division of labour, while increasing structural adjustment pressures in OECD countries. Despite the importance of these developments, this report does not attempt to analyse how "globalisation" is reshaping employment patterns and policy choices. However, the implications of international economic integration for economic policy making are the focus of other OECD studies (see Box 1.3 for an overview). This work suggests that globalisation reinforces the importance of enacting structural reforms that enhance the adaptive capacity of labour markets, consistent with the orientation of the Jobs Strategy (OECD, 1994a).

The impacts of the policies and labour market institutions analysed in this publication are multiple by nature and their assessment would require, in principle, to take all aspects – social, growth, fiscal – into account. Here again, the scope of the analysis is limited in that it focuses primarily on the impact of policies on labour market performance – including unemployment, employment, participation and some aspects of job quality –, household income distribution and relative poverty. The influence of policy setting and regulations on the growth of real wages and living standards is an important component of labour market performance, but is largely outside of the scope of this report. However, productivity growth at the industry level – a key underlying determinant of real wage growth in the long run – was analysed in detail in the OECD Growth Study (Box 1.2).

Box 1.1. **The 1994 OECD Jobs Strategy**

In response to high and persistent unemployment in many OECD countries in the late 1980s and early 1990s, the OECD undertook a major study of the factors underlying the deterioration of labour market performance. The resulting diagnosis – together with a wide-ranging set of policy recommendations to reduce unemployment, raise employment and increase prosperity – was published in 1994 as the *OECD Jobs Study* (OECD, 1994a, b, c). The general policy recommendations presented in this study provided an overall framework for reform which has come to be known as the "OECD Jobs Strategy". These policy recommendations can be grouped under ten headings:*

1. Set macroeconomic policy such that it will both encourage growth and, in conjunction with good structural policies, make it sustainable, *i.e.* non-inflationary.
2. Enhance the creation and diffusion of technological know-how by improving frameworks for its development.
3. Increase flexibility of working-time (both short-term and lifetime) voluntarily sought by workers and employers.
4. Nurture an entrepreneurial climate by eliminating impediments to, and restrictions on, the creation and expansion of enterprises.
5. Make wage and labour costs more flexible by removing restrictions that prevent wages from reflecting local conditions and individual skill levels, in particular of younger workers.
6. Reform employment security provisions that inhibit the expansion of employment in the private sector.
7. Strengthen the emphasis on active labour market policies and reinforce their effectiveness.
8. Improve labour force skills and competences through wide-ranging changes in education and training systems.
9. Reform unemployment and related benefit systems – and their interactions with the tax system – such that societies' fundamental equity goals are achieved in ways that impinge far less on the efficient functioning of labour markets.
10. Enhance product market competition so as to reduce monopolistic tendencies and weaken insider-outsider mechanisms while also contributing to a more innovative and dynamic economy.

The general Jobs Strategy framework was subsequently used to derive country-specific policy recommendations – tailored to the institutional, social and cultural characteristics of each member country – in the regular country reviews conducted by the Economic and Development Review Committee (EDRC). Reviews of the progress made in implementing the EDRC recommendations were published in 1997 and 1999 (OECD, 1997a and 1999b). The Employment, Labour and Social Affairs Committee (ELSAC) followed-up on some of the key Jobs Strategy recommendations (see in particular OECD, 1996, 1997c, 2000a).

* These ten broad policy guidelines are backed up by almost 70 detailed policy recommendations (OECD, 1994a).

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Box 1.2. **OECD Growth Study: the role of education, innovation and entrepreneurship**

The OECD recently carried out a multi-year study on the determinants of the level and growth of GDP per capita, motivated in part by the need to better understand the divergence in economic growth performance across member countries during the 1990s. The final report issued in 2003 (OECD, 2003b) confirmed the central role of labour- and product-market policies in the growth process, while also demonstrating the importance of education, innovation and entrepreneurship in determining productivity and economic growth.

The Growth Study found that an increase in the average length of initial education by one year resulted in a gain in the level of GDP per capita of 4%. This evidence from a macroeconometric analysis is in line with the results of microeconomic studies that consistently find that wage levels are linked to educational attainment. The determinants of educational outcomes, both in terms of quantity and quality, are the subject of on-going studies in the OECD.

Innovation is a key determinant of economic growth over the longer term. Proxying innovation activity by spending on research and development (R&D), the Growth Study found powerful effects on the level and growth rate of GDP per capita. Subsequent studies exploring the determinants of R&D spending have pointed to the importance of framework conditions, such as good educational and training systems that provide people with skills that allow them to take advantage of new technology, the availability of risk capital that stimulates entrepreneurship, product market regulations that do not unduly restrict competition in product markets and policies in labour markets that facilitate rather than retard changes. In addition, innovation can be affected by targeted policies, such as those that strengthen industry-science linkages, financial support for R&D spending and tax concessions.

Entrepreneurship, as reflected in business start-ups and firm growth dynamics, influences productivity growth as new, more efficient entrants replace less efficient incumbents. This effect is found to be particularly important in information and communications technology (ICT) sectors where technological opportunities are changing at a rapid pace. In particular, according to the Growth Study, entrepreneurship can be significantly impeded by product market regulations that inhibit entry and overly strict employment protection that makes it costly for small and medium sized firms to experiment with new products. Entrepreneurship is also strongly shaped by the efficiency of the credit and tax systems, the quality of corporate governance, as well as by broader socio-cultural factors.

As a follow up to the Growth Study, the OECD has inaugurated a process for monitoring progress achieved by OECD governments in implementing structural reforms that would raise GDP per capita and long-run growth performance. For this purpose, an annual publication, *Economic Policy Reforms: Going for Growth*, was introduced in 2005, which provides a comparative assessment of structural policy settings and identifies reform priorities for each member country (OECD, 2005g). Subsequent issues will monitor progress in implementing these policy priorities and report on new Secretariat analysis of the determinants of good growth performance (OECD, 2006d). Overall, the evidence from the OECD Growth Study and its follow up has given additional support to the Jobs Strategy's emphasis on initial education, innovation and entrepreneurship as drivers of long-run improvements in productivity and living standards.

Box 1.3. **OECD Study of Trade and Structural Adjustment and its follow up**

The main results from a multi-year OECD study of the policy requirements for successful trade-related structural adjustment are summarised in *Trade and Structural Adjustment: Embracing Globalisation* (OECD, 2005c). It is argued there that freer trade and investment result in firm closures and job losses in some sectors, while creating new opportunities in others. The adjustment costs resulting from job displacement reduce the short-term efficiency gains from structural changes and place the burden on a narrow segment of the populations, raising equity concerns and potentially eroding political support for trade liberalisation and, more generally, efficiency-enhancing structural change.

The overriding need is thus for policies that facilitate the reallocation of labour and capital to more efficient uses in response to the emergence of new sources of competition and new opportunities, while limiting adjustment costs for individuals, communities and society as a whole. Labour market policies can contribute to meeting this challenge by helping develop human skills and adaptability and facilitating labour mobility across occupations, firms, industries and regions, while providing adequate assistance to those who experience adjustment costs as a result of structural change. However, policies to enhance the adaptive capacities of labour markets are only one component of the broader policy framework needed to meet the structural adjustment challenge. Other components include: macroeconomic policies that promote stability and growth; an efficient framework of product market regulation; a strong institutional and governance framework that favours structural reform; and liberal trade and investment policies.

The implications of recent trends in international trade and foreign direct investment for labour market policy in OECD countries was analysed in greater detail in Chapter 1 of the 2005 *OECD Employment Outlook* and Kongsrud and Wanner (2005). Two main lessons emerge. First, the structural reform agenda laid-out in the 1994 Jobs Strategy can enhance the overall adaptability of labour markets to structural economic change. Indeed, the recent evolution of the global economy – particularly the rapid integration of China and other emerging market economies into the world trading system – probably implies that the cost of *not* implementing employment-friendly reforms is increasing. Second, the best measures for helping workers who are displaced from their jobs by imports or "delocalisation" are a well designed and effectively integrated system of unemployment benefits and active labour market programmes, two key policies that are analysed in detail in this report.*

As a follow up to this work, the 2005 Ministerial Council Meeting of the OECD endorsed a two-year study of Globalisation and Structural Adjustment to be completed in the Spring of 2007. One goal of this new study is to obtain a clearer picture of how new patterns in international trade and investment – including the internationalisation of production through the offshoring of intermediate stages of production – are affecting OECD labour markets. Among the questions being investigated are whether structural adjustment pressures in the labour market are increasing, either overall (*e.g.* due to the scale of import competition from China and other large emerging economies) or for specific work force groups (*e.g.* skilled white collar workers who may be affected by the offshoring of ICT-enabled business services to India and other low wage countries). A second issue to be investigated is whether these developments require changes to be made to employment and social protection schemes in OECD countries.

* In certain cases, there may also be a role for special programmes targeted on trade-displaced workers or sectors and localities that are especially hard hit. However, such measures have often performed poorly in the past and when used should be time-bound, decoupled from production, compatible with general safety net arrangements, cost effective and transparent.

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How this issue of the OECD Employment Outlook *contributes to the reassessment of the 1994 Jobs Strategy*

Chapters 2 to 7 of this publication summarise the evidence and analysis that were assembled in the course of reassessing the 1994 Jobs Strategy and which under gird the reformulation of that strategy as presented in the Policy Report (OECD, 2006b). Chapter 2 sets the stage for the reassessment by briefly reviewing recent trends in labour market performance and social and working conditions. Chapter 3 then revisits many of the policy recommendations in the Jobs Strategy to improve overall labour market performance. Policies to improve labour market outcomes for particular groups in the working-age population, who are under-represented in employment in most OECD countries, are analysed in Chapter 4. This chapter also discusses policy strategies to tackle problems related to lagging regional labour markets and informal employment. Chapter 5 analyses the possible social consequences of reforms recommended by the Jobs Strategy, including possible impacts on the distribution of income and several aspects of job quality. Interactions between macroeconomic policies and labour- and product-market policies and institutions, as well as interactions between shocks and institutions are explored in Chapter 6. This chapter closes with a discussion of the political economy of reforms. Finally, Chapter 7 provides some of the technical underpinnings for new regression-based evidence concerning the impacts of labour market policies and institutions on unemployment and employment. This evidence is frequently cited in Chapters 3 to 6 and is presented in full in Bassanini and Duval (2006).

Supplementary tables and figures, which are referred to the following pages, can be downloaded from the OECD Internet site (OECD, 2006a). The following chapters also draw extensively on evidence presented in four OECD working papers covering: *i)* an econometric analysis of the determinants of labour market performance (Bassanini and Duval, 2006); *ii)* trends in income inequality and their relation to changes in unemployment and structural labour market policies (Burniaux and Padrini, 2006); *iii)* policies to activate the inactive (Carcillo and Grubb, 2006); and *iv)* policies to improve the labour market situation of youth (Quintini, 2006).

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Chapter 2

Labour Market Performance since 1994 and Future Challenges

How has labour market performance evolved since the OECD Jobs Strategy was first promulgated and what are the implications of this evolution for setting policy priorities? Since 1994, employment rates have increased in the majority of OECD countries, reflecting both a cut in unemployment rates and higher participation rates. Notwithstanding the favourable developments in most member countries, persistently high unemployment remains a serious problem in some countries. Furthermore, progress has been uneven across the working-age population, being particularly limited for youth and less skilled workers. In some countries, the incidence of "working poverty" remains stubbornly high, showing little sign of declining even in periods of high employment growth. Further substantial increases in employment rates will be required to prevent population ageing from becoming a major drag on living standards.

This chapter provides a broad-brush picture of labour market performance since 1994 and puts it into the context of both earlier trends and future challenges relating to the ageing of populations in member countries. It is organised in four main parts: aggregate labour market performance, labour market performance for particular groups, trends in social and working conditions, and future challenges.

1. Aggregate labour market performance

Since 1994, labour market performance in the OECD area as a whole has improved: the unemployment rate has come down, the employment rate has gone up and the participation rate has risen (Table 2.1). For unemployment, recent trends constitute a reversal of the trend rise in the joblessness rate since the early 1970s, even if the number of unemployed persons in the OECD area at present (around 37 millions) is almost the same as it was ten years ago. An increase in employment by nearly 50 million persons over the same period has been marginally higher than the expansion of the population of working age, but sufficient to push up the area-wide employment rate to a historical high. Similarly, the increase of the aggregate participation rate in the OECD area that has been observed since 1984 has accelerated slightly over the 1994-2004 period. As a result of these developments, labour utilisation – as measured by the number of hours worked per person of working age – has increased after 1994, in contrast to the evolution of the previous decade.

The reduction in the area-wide unemployment rate masks significant differences across member countries (Figure 2.1, Panel A):[1]

- Very sharp cuts in unemployment rates were recorded in Ireland,[2] Spain and Finland, all of which had very high joblessness rates in the mid-1990s. In contrast, the three largest European economies reported no or little progress with Italy and France being marginally more successful in recent years than Germany.
- Significant cuts in unemployment rates have also taken place in a few English-speaking countries (Australia, New Zealand and the United Kingdom), in the Nordic countries (Denmark, Sweden), the Netherlands and Hungary. In some of these countries, unemployment rates have been halved over the past ten years and have reached levels not seen since the 1970s.
- Sharp increases in the unemployment rate have been confined to some central and eastern European countries, from already very high levels (Poland, the Slovak Republic) or from a relatively low level (the Czech Republic) in the mid-1990s.

For the countries where such estimates are available, structural unemployment rates[3] paint a similar picture of the evolution of joblessness as unadjusted rates (Figure 2.1, Panel B).[4]

Employment rates have increased in almost all OECD countries since 1994 (Figure 2.2, Panel A). The gains in employment/population ratios have been particularly striking, at

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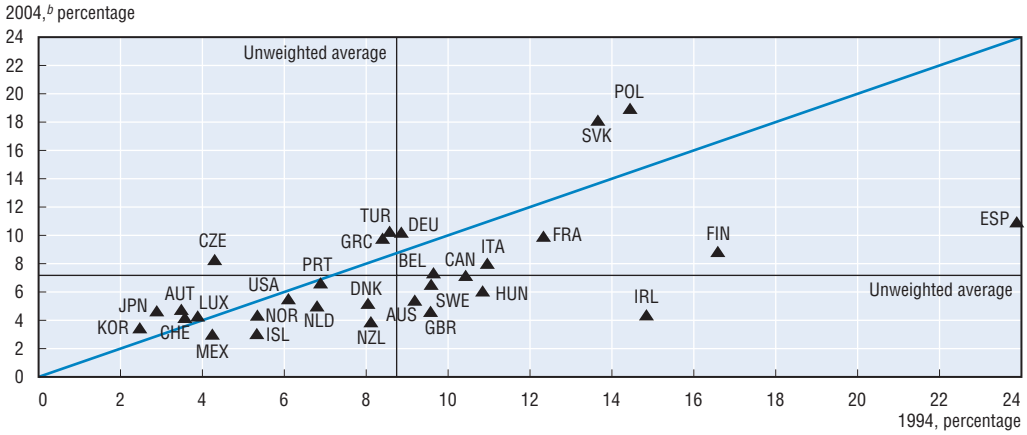
Table 2.1. **Labour market performance in the OECD area, 1994-2004**

	1994	2004	Change 1994-2004
	[1]	[2]	[2]-[1]
Unemployment (thousands)	38 300	37 409	–891
Employment (thousands)	465 170	514 777	49 607
Labour force (thousands)	503 451	552 027	48 576
Unemployment rate	7.6	6.8	–0.8
Structural unemployment rate[a]	6.9	6.0	–0.9
Employment rate	65.3	66.5	1.2
Labour utilisation, annual hours worked per person of working age[b]	1 165	1 178	1.1%

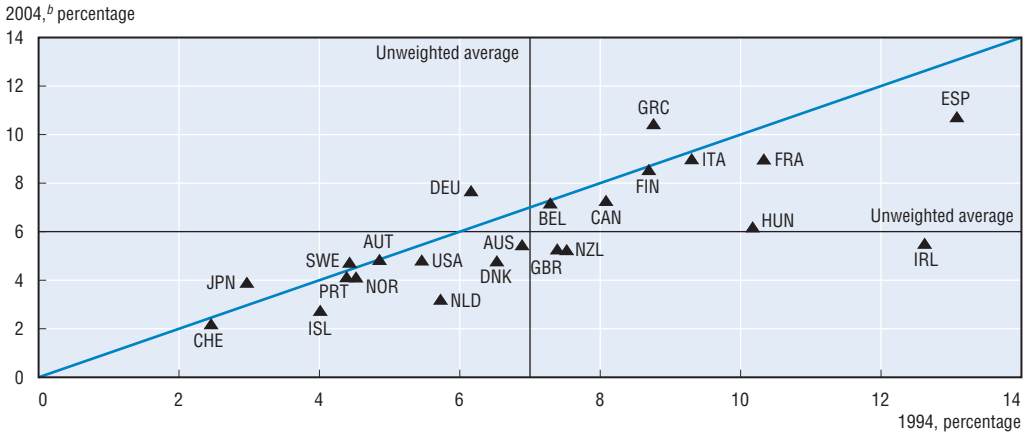
a) Unweighted average structural unemployment rate, excluding the Czech Republic, Hungary, Korea, Luxembourg, Mexico, Poland, the Slovak Republic and Turkey, calculated by using a Kalman filter approach that embodies a reduced-form Phillips curve (see Richardson *et al.*, 2000).
b) Unweighted average, excluding Luxembourg, Poland and Turkey.
Source: OECD database on Labour Force Statistics. Statlink: *http://dx.doi.org/10.1787/463856714423*

Figure 2.1. **Unemployment rates in OECD countries, 1994 and 2004**[a]

Panel A. **Aggregate unemployment rates**



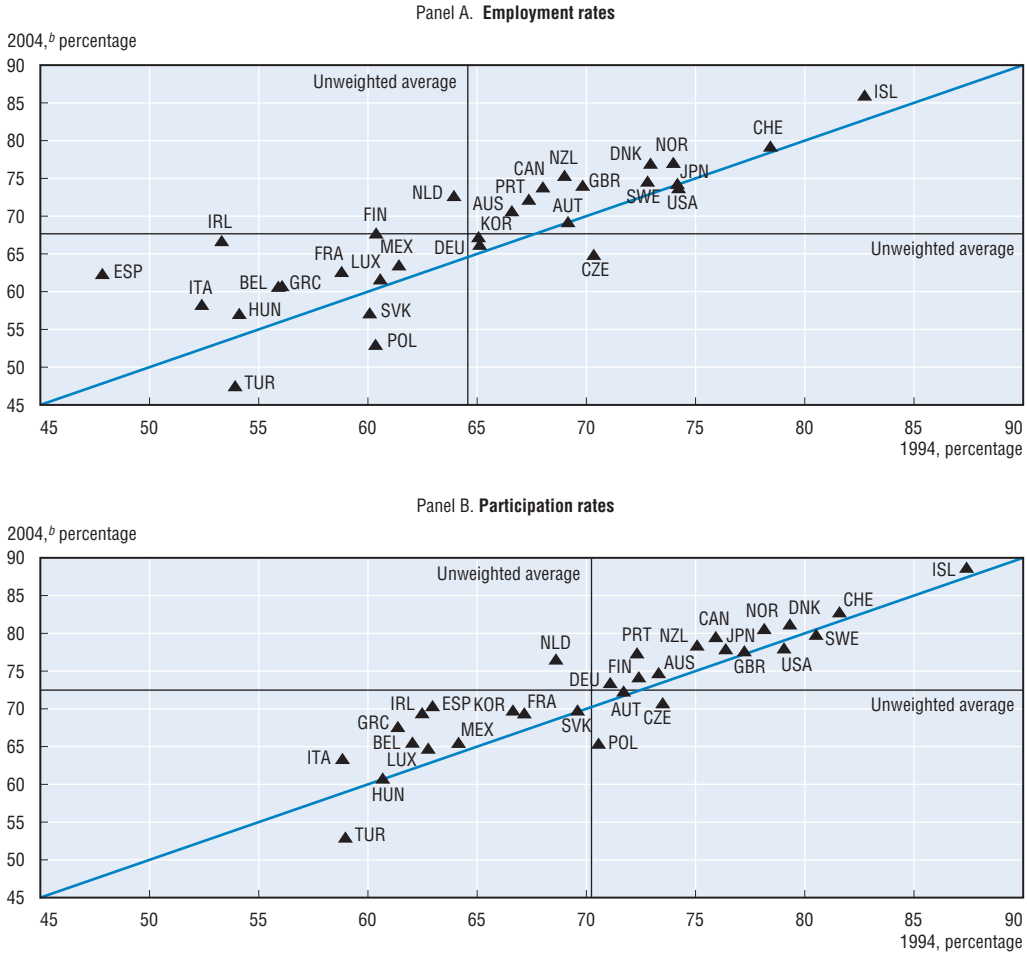
Panel B. **Structural unemployment rates**[c]



a) The 1994 and 2004 values shown are not fully comparable for some countries because statistical methods changed between these two years. See the Statistical Annex of this publication for a discussion of recent historical breaks in Labour Force Statistics.
b) 2003 for Austria.
c) Structural unemployment rates are calculated by using a Kalman filter approach that embodies a reduced-form Phillips curve (see Richardson *et al.*, 2000).

Source: OECD database on Labour Force Statistics; Economic Outlook database.
Statlink: *http://dx.doi.org/10.1787/688570517526*

Figure 2.2. **Employment and participation rates in OECD countries, 1994 and 2004**[a]



a) The 1994 and 2004 values shown are not fully comparable for some countries because statistical methods changed between these two years. See the Statistical Annex of this publication for a discussion of recent historical breaks in Labour Force Statistics.

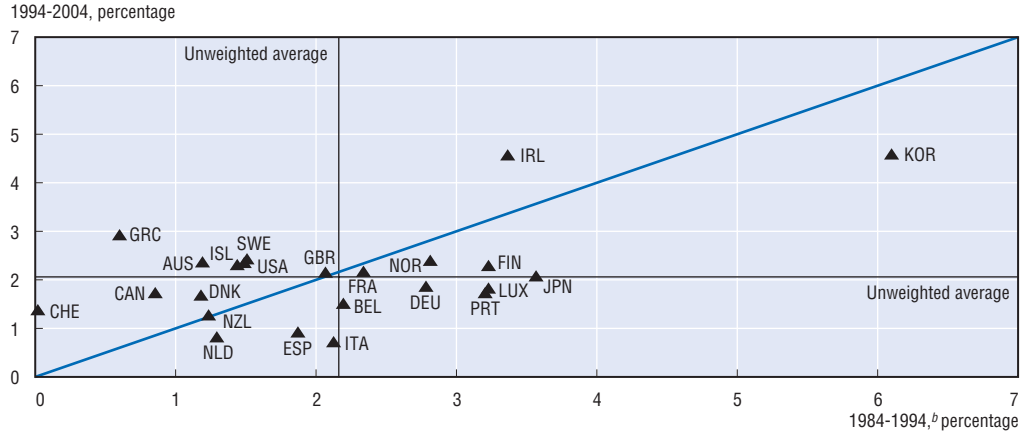
b) 2003 for Austria.

Source: OECD database on Labour Force Statistics. Statlink: *http://dx.doi.org/10.1787/643307574216*

around 10 percentage points, in Spain, Ireland and the Netherlands, reflecting both the fall in unemployment rates and increases in labour force participation rates. Employment rates have also risen markedly in some English-speaking countries (Australia, New Zealand and the United Kingdom), mostly mirroring the drop in joblessness in these countries, and, from a relatively low level, in Belgium, France, Italy and Portugal. By contrast, the share of the working-age population at work dropped in some eastern European countries and Turkey. Similar patterns across countries are observed for the aggregate participation rates (Figure 2.2, Panel B). The only group of countries to experience a significant drop of actual participation was in eastern Europe and Turkey.

Job creation in most member countries was accompanied by different trends in the growth of labour productivity as measured by output and hours worked (Figure 2.3). In the United States, growth in employment over the 1994-2004 period took place against the background of higher productivity growth.[5] A few countries, like Australia and Ireland,

Figure 2.3. **Labour productivity[a] growth in OECD countries, 1984-2004**

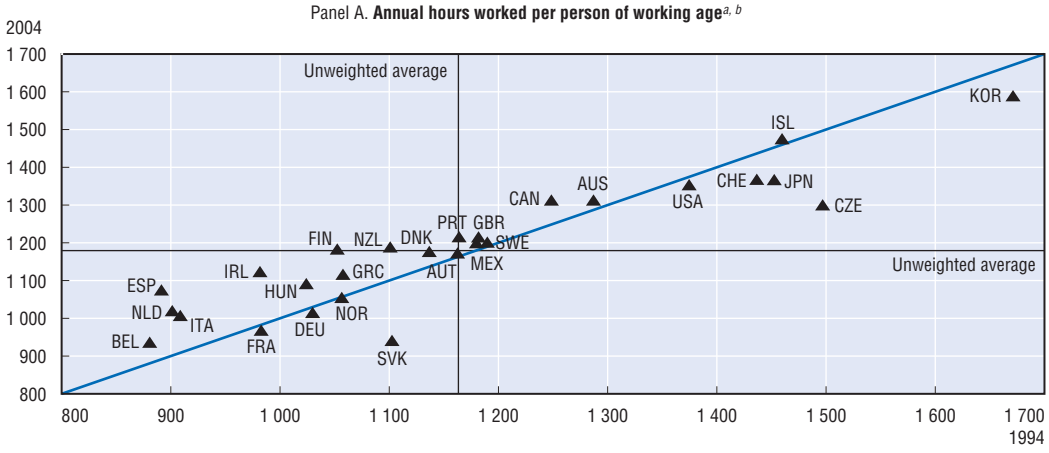


a) GDP per hour worked.
b) 1986-1994 for Portugal.

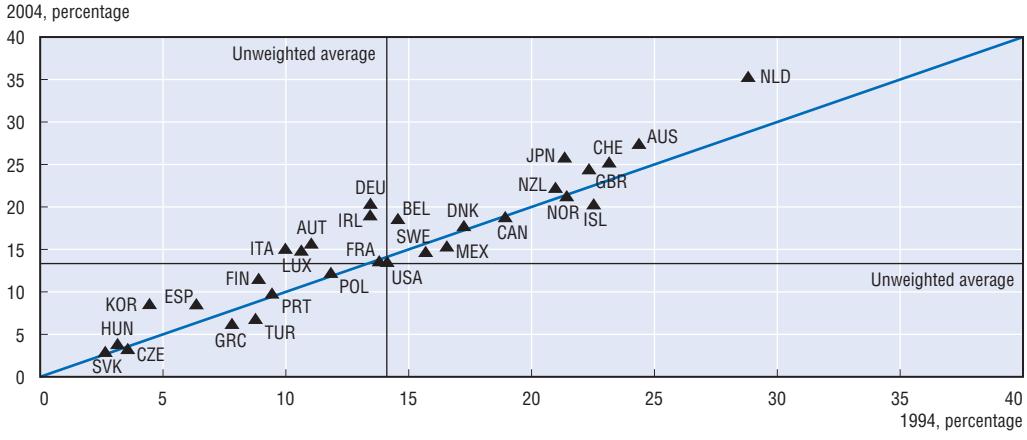
Source: OECD Productivity database. Statlink: *http://dx.doi.org/10.1787/647201877576*

Figure 2.4. **Labour utilisation in OECD countries, 1994 and 2004**

Panel A. **Annual hours worked per person of working age[a, b]**



Panel B. **Incidence of part-time employment[c]**



a) 15-64 or 16-64 age group.
b) 1995 and 2004 for Austria.
c) 1994 and 2002 for Iceland, 1995 and 2004 for Austria, Hungary and Mexico, 1997 and 2004 for Poland.

Source: OECD database on Labour Force Statistics. Statlink: *http://dx.doi.org/10.1787/835013006114*

combined stronger productivity growth performance and stronger job creation. However, in several countries an improved employment record went hand in hand with a marked slow-down in the growth of output. Such "productivity-poor" growth has been most visible in Italy and Spain, with productivity growth falling to very low levels. Overall, since 1994, productivity growth increased in the United States while it declined in most European countries and, as a result, productivity growth in the United States, which was below the OECD average in the earlier period, has been above average since 1994.

Higher employment has not always resulted in an increase in labour utilisation, *i.e.* hours worked per person of working age. While labour utilisation has increased in a majority of countries since 1994, it has declined significantly in some continental European countries (France, Germany, Switzerland), eastern European countries (the Slovak and Czech Republics), Japan, Korea and the United States (Figure 2.4, Panel A). These drops partly reflect a reduction in virtually all countries of the number of hours worked per employed person (Table F in the Statistical Annex). An important factor behind the fall in the number of hours worked per employed person is the sustained increase in the incidence of part-time work during the past decade (Figure 2.4, Panel B), in particular in Belgium, Germany, Ireland, Italy, Japan, Korea and the Netherlands.

2. Labour market performance for particular groups

Not all segments of the working-age population benefited equally from the general improvement in labour market performance. Some groups – youth, women, older, less skilled workers and workers in disadvantaged regions – have always had more difficulties in the job market than prime-age men. Developments over the 1994-2004 period for these groups have been contrasting (see also OECD, 2006a, Tables W.2.1-4):

- Female participation relative to that of prime-age men (Figure 2.5) kept increasing during the past decade, though by a smaller extent than the strong gains registered during the previous decade. Exceptions to this trend concern Turkey, where female participation fell from a very low level, and conversely some eastern European countries and some Nordic countries, where female participation fell or stabilised, after having reached already very high levels ten years ago. At the same time, the prime-age female unemployment rate fell in most countries, though generally not more than that of prime-age men (Figure 2.6). Therefore, the employment rate for women has increased significantly in most member countries.
- In most countries, youth (those aged 15 or 16 to 24) relative participation has kept declining, reflecting mainly young people spending a longer time in education, though this evolution was less marked during the past decade compared with the previous one (Figure 2.5). On average, the youth unemployment rate is around three times as high as for prime-age men. However, when calculated as a proportion of the youth population (instead of labour force), the ratio of the youth unemployment rate relative to prime-age men is around 1.5 only. Although youth unemployment rates have tended to fall somewhat in absolute terms, they rose relative to prime-age male unemployment rates on average during the past decade (Figure 2.6). The employment-population ratios for this age group have fallen overall, but with notable exceptions in a few countries (Iceland, Ireland, Finland and Spain).

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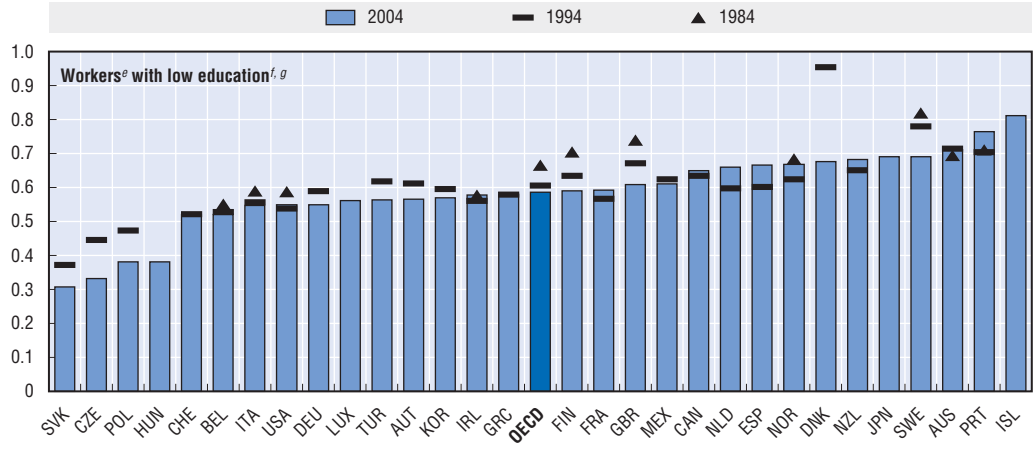
Figure 2.5. **Relative participation rates for particular groups, 1984-2004**[a]

Figure 2.5. **Relative participation rates for particular groups, 1984-2004**[a] *(cont.)*



a) Relative to prime-age male participation rates (25-54 age group). The 1984, 1994 and 2004 values shown are not fully comparable for some countries because statistical methods changed between these three years. See the Statistical Annex of this publication for a discussion of recent historical breaks in Labour Force Statistics.
b) 25-54 age group.
c) 15-24 or 16-24 age group.
d) 55 and over age group, except 55-74 for Finland, Hungary, Iceland, Norway and Sweden.
e) 15-64 age group.
f) Less than upper secondary level.
g) 1995 for France, Korea, Mexico, Poland, the Slovak Republic and the United Kingdom, 2002 for Iceland, Italy and the Netherlands.

Source: OECD database on Labour Force Statistics.

Statlink: *http://dx.doi.org/10.1787/786162228154*

- A notable feature of labour market performance trends over the 1994-2004 period is the termination or even reversal of the previous trend decline in labour force participation of older workers (those aged 55 and over) in most countries. The participation rate, both in absolute terms and relative to that of prime-age men, has risen most strongly in the Nordic countries (Denmark, Finland, Norway, Sweden) and in New Zealand, while significant declines have been confined to Poland, Greece, Turkey and Japan (Figure 2.5). At the same time, however, the unemployment rate for this age group has remained broadly unchanged on average, even if a number of countries have recorded an increased incidence of joblessness (Figure 2.6). As a result, the employment rate for the 55-to-64 year olds has risen in most member countries. Nevertheless, in most countries, employment rates for this group remain low *vis-à-vis* what is needed in order to meet the challenges of population ageing.
- Participation of less-educated workers remains substantially lower than average and has not increased relative to that of prime-age men during the past decades (Figure 2.5). Increases have been recorded, however, since 1994 in several OECD countries, including Canada, France, the Netherlands, Portugal and Spain. Overall, the unemployment rate of less-educated workers remains twice as high as for prime-age men (Figure 2.6). It has stabilised after 1994, after having increased during the previous period, though by a lesser extent than for prime-age men.

Figure 2.6. **Relative unemployment rates for particular groups, 1984-2004**[a]

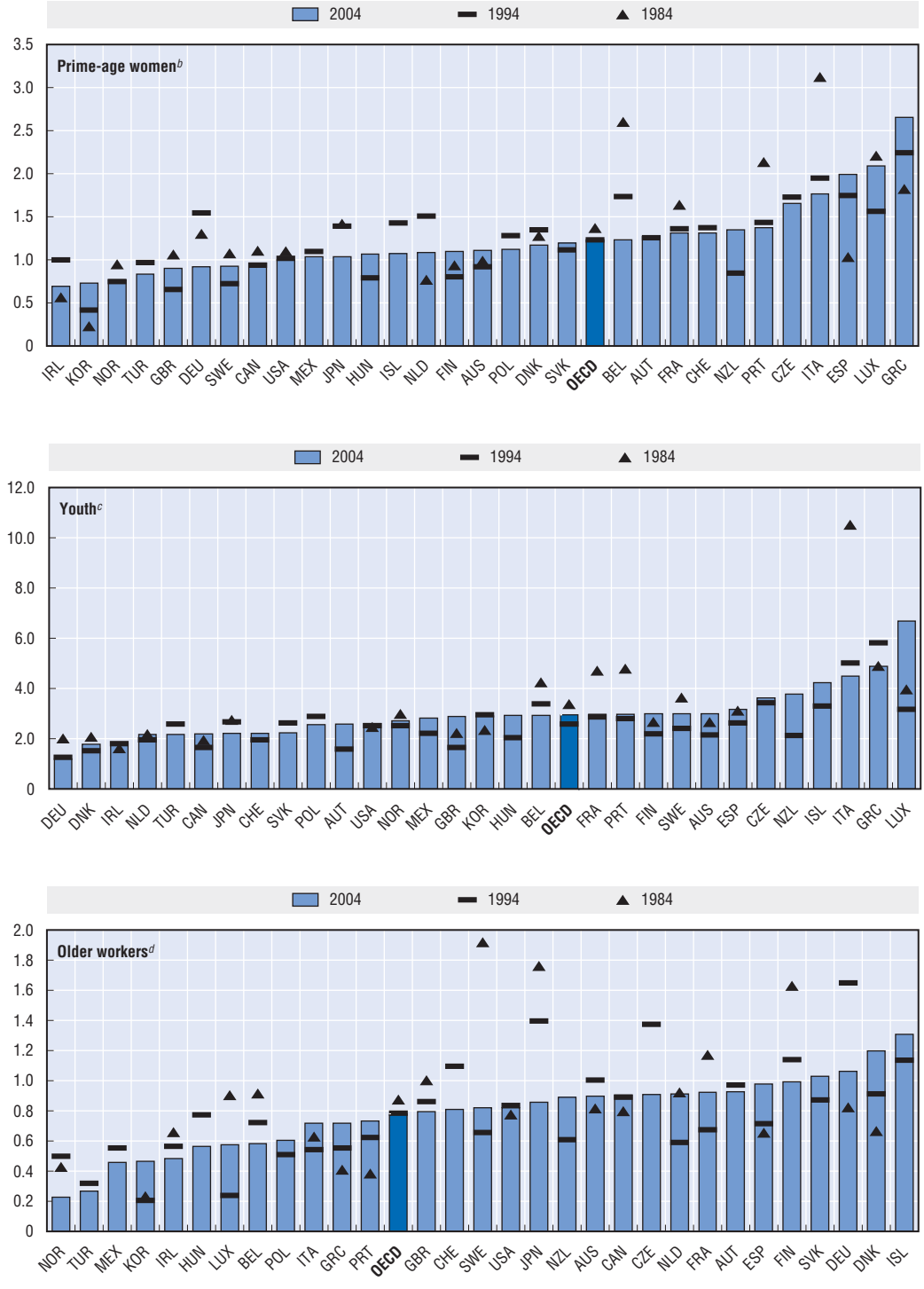
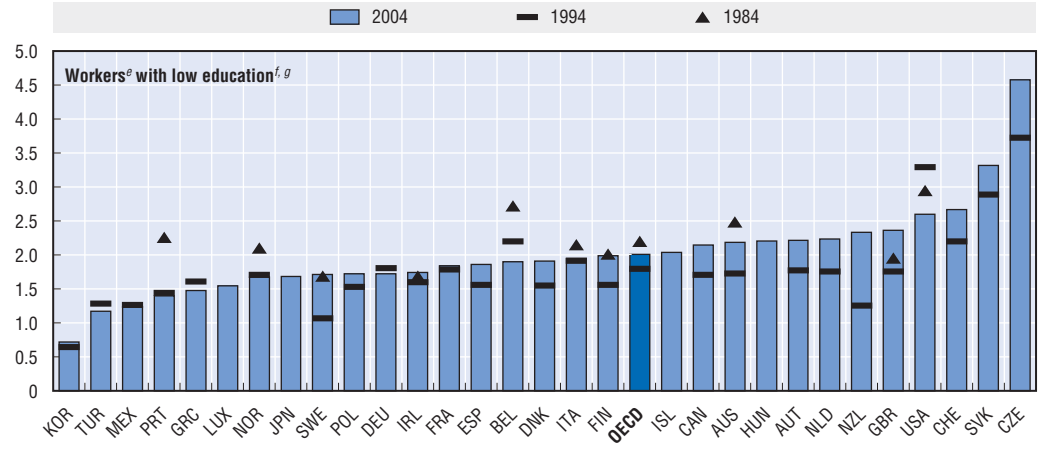


Figure 2.6. **Relative unemployment rates for particular groups, 1984-2004**[a] *(cont.)*



a) Relative to prime-age male unemployment rates (25-54 age group). The 1984, 1994 and 2004 values shown are not fully comparable for some countries because statistical methods changed between these three years. See the Statistical Annex of this publication for a discussion of recent historical breaks in Labour Force Statistics.
b) 25-54 age group.
c) 15-24 or 16-24 age group.
d) 55 and over age group, except 55-74 for Finland, Hungary, Iceland, Norway and Sweden.
e) 15-64 age group.
f) Less than upper secondary level.
g) 1995 for France, Korea, Mexico, Poland, the Slovak Republic and the United Kingdom, 2002 for Iceland, Italy and the Netherlands.

Source: OECD database on Labour Force Statistics. Statlink: *http://dx.doi.org/10.1787/774434164232*

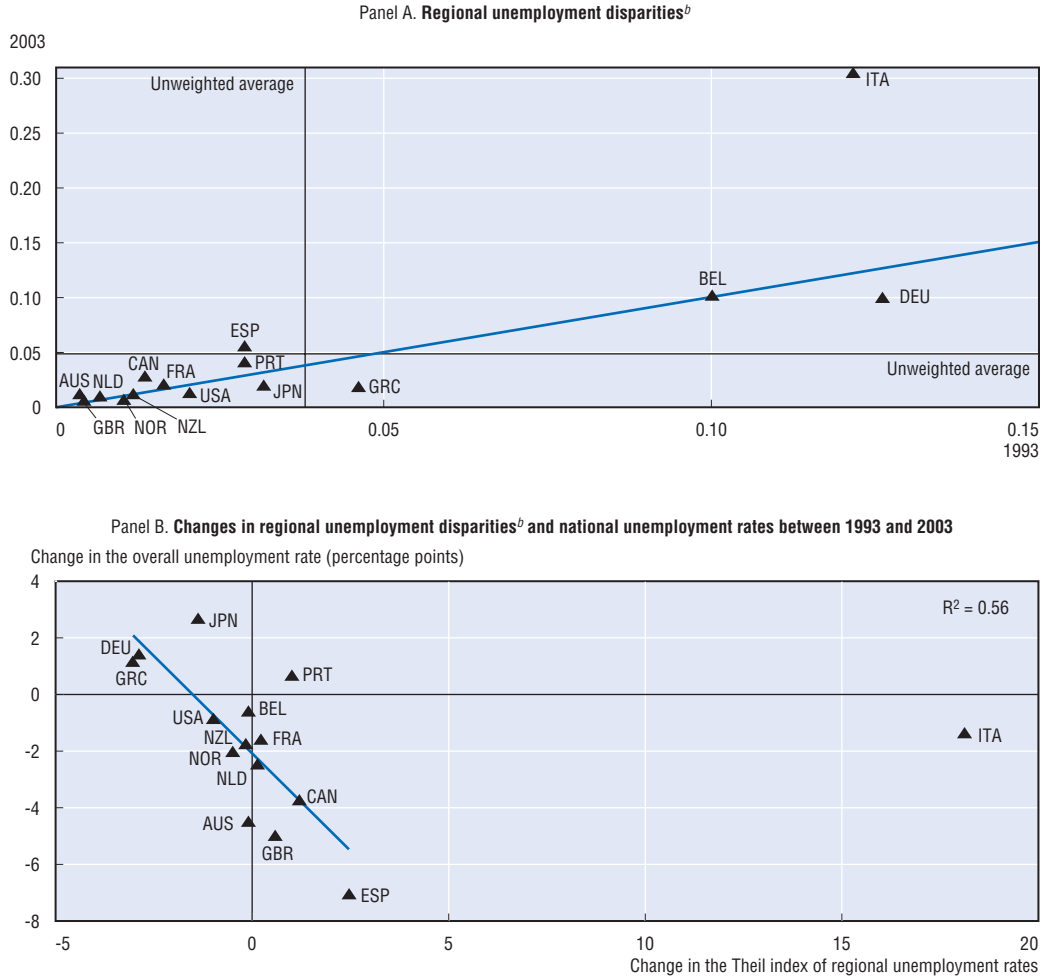
- Large cross-regional disparities of unemployment persist, especially in countries where national unemployment rates remain particularly high, like Belgium, Germany and Italy (Figure 2.7, Panel A). Between 1993 and 2003, there was some tendency for regional unemployment disparities to increase in the countries where labour market performance improved the most (Figure 2.7, Panel B).

3. Trends in income distribution and working conditions since 1994

Developments in the distribution of income have been uneven over the past decade:

- Since 1994, gross earnings inequality – measured over the employed population – has increased on average in OECD countries for which data are available (Figure 2.8). Earnings inequality had already showed a tendency to increase in the previous decade, but rose at an accelerated pace in the most recent period. This occurred in countries where labour market performance improved considerably (Australia, the Netherlands), as well as in countries where it deteriorated (the Czech Republic, Germany, Korea, and Poland). Gross earnings inequality further increased in countries where it was already high (Hungary and the United States). However, large reductions of gross earnings inequality were also reported in countries where labour market performance improved considerably, such as Ireland and Spain. At first glance, it is therefore impossible to identify a general relationship between trends in gross earnings inequality and labour market performance (see Chapter 5).
- The trend increase in household[6] inequality at the level of disposable income observed prior to 1994 was generally arrested subsequently (Figure 2.9, Panel A). Overall, household inequality changed relatively little during the past decade, except in the

Figure 2.7. **Regional unemployment disparities in 1993 and 2003**[a]



a) 1990 and 2000 for Japan, Korea, New Zealand and Switzerland.
b) As measured by the Theil index of regional unemployment rates.

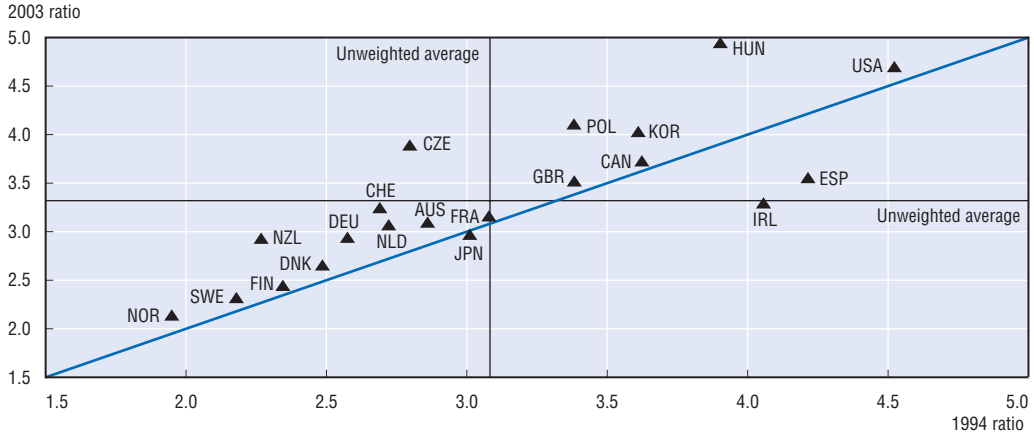
Source: OECD (2005), *OECD Employment Outlook*, Chapter 2, Paris.

Statlink: *http://dx.doi.org/10.1787/704326866407*

Czech Republic, Finland, Japan, Mexico and Sweden. Thus, the increase in gross earnings inequality observed after 1994 may have been more than offset by the redistributive impact resulting from the employment gains achieved during this period, while redistribution through taxes and transfers has declined in many countries (as discussed in Chapter 5).

- Relative poverty rates – that is, the proportion of the population with income below 50% of the current median income – have risen marginally since 1994 (Figure 2.9, Panel B).[7] Large increases were reported both in countries where labour market performance improved markedly and average income grew significantly (*e.g.* Ireland), as well as in other countries (Sweden). On the other hand, relative poverty remained more or less unchanged in countries where labour market performance improved (*e.g.* in the United Kingdom and the United States). In the latter country, relative poverty rates remain high by OECD standards.

Figure 2.8. **Gross earnings inequality[a] in 1994 and 2003[b]**



a) As measured by the ratio of the 9th to 1st decile earnings, full-year, full-time workers.
b) 1994 and 1999 for the Netherlands, 1994 and 2000 for Hungary and Ireland, 1994 and 2002 for France, Germany, Korea and Poland, 1995 and 2002 for Spain, 1996 and 2003 for the Czech Republic and Denmark, 1997 and 2002 for Norway, 1997 and 2003 for Canada.

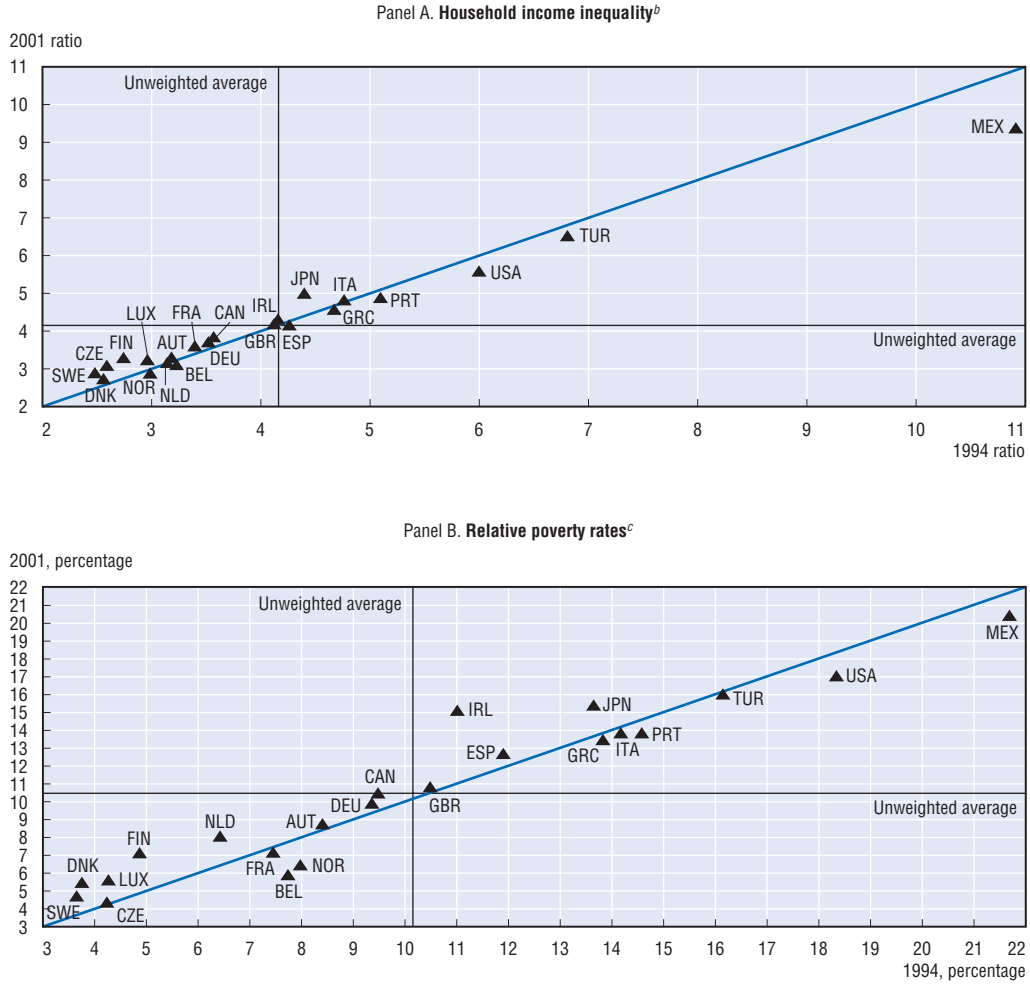
Source: OECD Earnings database.

Statlink: *http://dx.doi.org/10.1787/201756066362*

There have also been contrasting developments with respect to involuntary part-time work, temporary work, job tenure and in-work poverty over the same period (Figure 2.10):

- In contrast with earlier trends, the incidence of involuntary part-time work declined slightly during the past decade, though evolutions were contrasting across OECD members. Involuntary part-time work increased most in southern European countries and Japan.
- On average, temporary employment has increased slightly in countries for which data are available and temporary employment has a legal status. It increased significantly in only a few countries, *e.g.* Belgium, Italy, the Netherlands and Portugal, while it declined markedly in Ireland, followed by Spain (from a very high level), Turkey and Iceland. In a large majority of the countries for which data are available, temporary employment remains largely involuntary, with more than half of the workers indicating that they would prefer permanent jobs (Chapter 5).
- Job tenure increased on average during the past decade, especially in many Continental European countries (Belgium, France, Germany, Luxemburg, the Netherlands, Sweden and Switzerland) and eastern European countries. It fell noticeably in Ireland. In most countries, however, the rise in average job tenure reflects contrasting trends for young workers and more senior ones: average tenure of workers aged 15-34 decreased significantly in all countries but the Netherlands and Spain, while that of workers aged 35-64 increased substantially (Chapter 5).
- There has been a persistent increase of the proportion of working poor[8] in the total population after 1994 in the countries where such data are available. But, on average for the OECD, the incidence of working poverty has increased much more modestly after 1994 than during the previous decade. However, half of the countries for which data are available have reported increasing proportions of working poor after 1994, sometimes by a significant extent, such as in the Netherlands, Ireland and the United States (in the latter country from already high levels).

Figure 2.9. **Household income inequality and relative poverty in 1994 and 2001**[a]



a) 1994 and 1999 for Austria, 1994 and 2000 for France and Japan, 1994 and 2002 for Mexico and Turkey, 1995 and 2000 for Canada and Norway, 1995 and 2001 for Belgium, Finland, Italy, Portugal and Sweden, 1996 and 2002 for the Czech Republic.

b) As measured by the ratio of the 9th to 1st decile earnings of equivalised disposable income (*i.e.* household income, after taxes and transfers, that is adjusted for the number of persons in the household).

c) Calculated as the proportion of the population with equivalised disposable income below 50% of the current median income.

Source: Förster and Mira d'Ercole (2005).

Statlink: *http://dx.doi.org/10.1787/185122401028*

Overall, the data reviewed above (see also OECD, 2006a, Table W.2.5) point to diverse results across countries and indicators in terms of recent trends in either income distribution and poverty or a range of indicators of job quality. Chapter 5 examines in some detail the extent to which such trends are associated with patterns in the "quantity" of jobs, as well as underlying policy settings which shape income distribution, poverty and job quality.

Figure 2.10. **Trends in job quality**

a) Share of involuntary part-time employment among part-time employment (left-side scale).
b) Temporary employment as a percentage of total employment (left-side scale).
c) Average years of job tenure with the current employer (right-side scale).
d) Proportion of the population with equivalised disposable income below 50% of the current median income and living in a household containing at least one worker (left-side scale).

Source: OECD database on Labour Force Statistics; Luxembourg Income Study (LIS); and European Community Household Panel (ECHP).

Statlink: *http://dx.doi.org/10.1787/364123351506*

4. The current situation and future challenges

Notwithstanding the improvements along the various dimensions of labour market performance in the ten years to 2004, continued signs of weakness were evident for a number of countries at the end of the period:

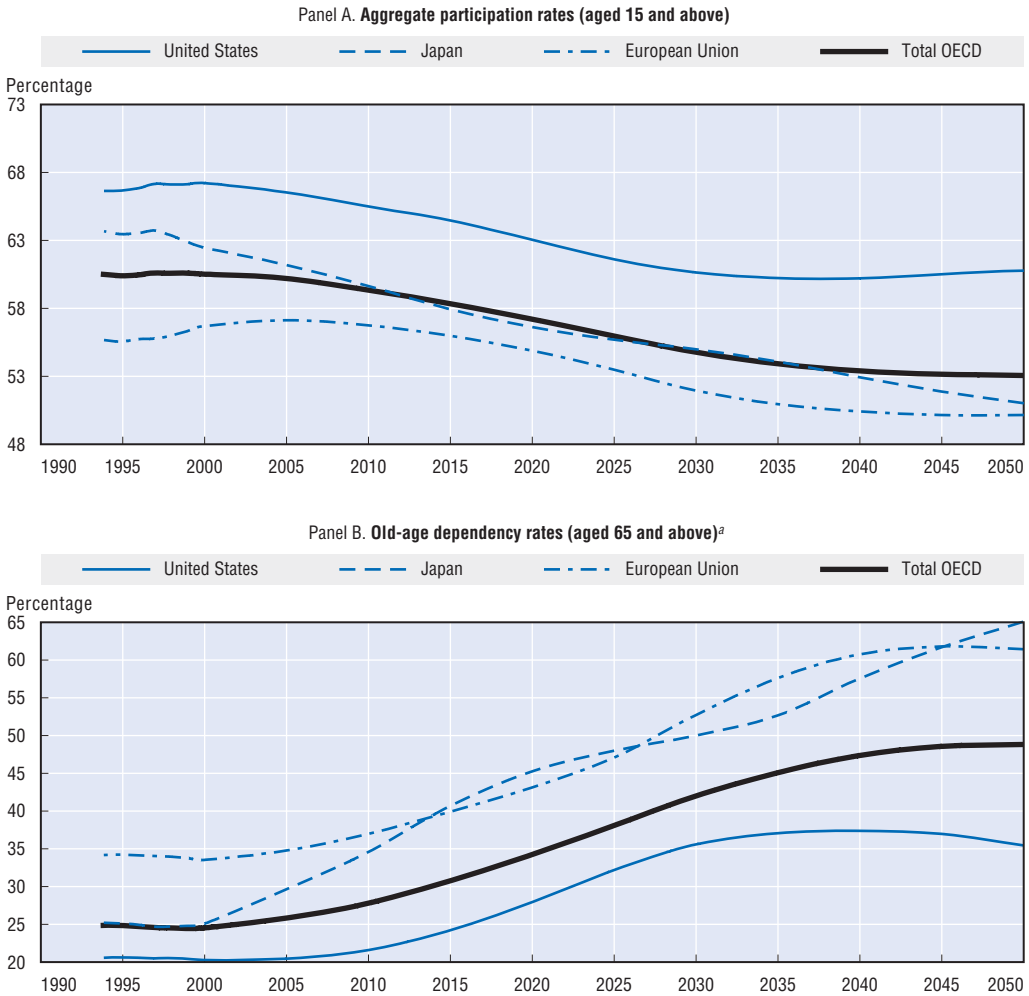
- High unemployment rates, exceeding 8%, in the large continental European countries, some southern European countries (Spain, Greece) and Turkey and some eastern European countries (Poland, the Czech Republic and the Slovak Republic).
- Low employment rates, at around 60% or less, in some southern European countries (Greece, Italy, Turkey), central and eastern European countries (Hungary, Poland, Slovak Republic) and Mexico.
- Participation rates below 70% in Belgium, Greece, Italy, Luxemburg, Mexico, Poland and Turkey.
- Very low – at around 20% or less – participation rates of older workers in continental European countries (Austria, Belgium, France, Germany and Luxemburg), southern European countries (Greece, Italy and Spain) and some eastern European countries (Poland and the Slovak Republic).
- Continued difficulties to promote employment prospects of the low-skilled and youth in many OECD countries.
- Persistence of a high incidence of low-paid work and/or poverty, notably in Canada, Hungary, Korea, Poland, the United Kingdom and the United States.

The current unsatisfactory situation in many countries raises serious concerns with regard to the impact of a substantial ageing of the OECD population on future labour supply over coming decades. First, as older workers come to account for a growing share of the labour force, aggregate participation rates will drop in the absence of any reforms to

encourage them to continue working as, in many OECD countries, these workers have a much lower propensity to participate to the labour market than prime-age workers. Second, the increase of female participation that has been the major engine behind the increase of the labour supply during recent decades may not be sufficient to offset the negative impact of population ageing in the future. There are signs in several OECD countries that the positive "cohort effect"[9] that has boosted female labour supply in the past may come to an end, as educational and participation gaps between men and women progressively fade away.

The OECD Secretariat has made several projections of the size of the labour force in member countries over the next 50 years (OECD, 2005e; Burniaux *et al.*, 2003). Though these projections use somewhat different methodologies and data sets, they yield a similar message. The total labour force for the OECD area is projected to remain roughly constant or even decline slightly over the next 50 years. On unchanged policies, the aggregate participation rate in the OECD area might fall from 60% now to less than 53% in 2050 (Figure 2.11, Panel A).[10] The drop would be even more pronounced in the European Union,

Figure 2.11. **Baseline projection of population ageing, 1994-2050**



a) Calculated as the ratio of inactive aged 65 and above to the labour force aged 15 and above.

Source: Burniaux *et al.* (2003).

Statlink: *http://dx.doi.org/10.1787/125468351002*

though taking place later as the full impact of ageing would be somewhat delayed by the high participation rates of recent female cohorts in some southern European countries.

Substantial falls in the number of persons participating in the labour force are projected for a number of OECD countries, such as in Austria, eastern European countries, Italy, Japan, Korea, and, to a lesser extent, Germany. These countries face weak population growth, a rapid pace of ageing, low participation of workers aged 50 and over and weakening autonomous increases of participation across female cohorts.[11] Old-age dependency ratios – calculated as the ratio of those inactive aged 65 and above to working-age actives – are projected to rise from 25% for the whole OECD in 2000 to almost 50% in 2050 (Figure 2.11, Panel B), and from 35% to more than 60% in the European Union.

With this perspective, raising employment rates and improving career prospects for under-represented groups are critical in order to meet the forthcoming challenge of population ageing in most member countries. In particular, older workers still face high disincentives to work and represent a significant latent reserve of labour in many countries if these disincentives were removed. There is also some scope in several OECD countries to raise female labour force participation to levels similar to those seen in Nordic countries by providing the appropriate work incentives and encouraging the diffusion of family-friendly employment participation. Policy strategies for meeting this challenge are analysed in Chapter 4.

Notes

1. As many subsequent figures and tables, this figure reports data from the OECD database on Labour Force Statistics. The Statistical Annex in the back of this publication provides more detailed tabulations from this database, as well as a description of the underlying data sources and methods. Some of the data series from this source are affected by quantitatively small breaks that are documented in the Statistical Annex.
2. However, only Ireland succeeded in bringing unemployment down to a low level by international standards.
3. These are calculated with the use of a Kalman filtering approach that embodies a reduced-form Phillips curve (see Richardson *et al.*, 2000).
4. The main exceptions to this pattern are Finland and Sweden for which adjusted rates are estimated to have been broadly constant.
5. When measured per hour worked in the non-farm business sector, the acceleration in productivity in the United States is more striking than shows in Figure 2.3.
6. Calculated over the entire population of households, including non-working households.
7. It is important to emphasis that the data in Figure 2.9, as well as the more extensive analysis in Chapter 5, are based on a *relative* concept of poverty, in opposition to an *absolute* one. Comparisons of relative poverty rates – whether across countries or over time within a country – are not informative about how absolute poverty rates compare. The pros and cons of these two alternative definitions of poverty, as well as the implications of choosing a relative measure, are discussed in the Chapter 5.
8. Defined as the proportion of individuals living below the poverty threshold of 50% of the current median income despite the existence in the household of at least one worker. This definition differs from some other definitions in that *i)* it contains all individuals belonging to an household with at least one worker, whatever they work or not, and *ii)* the status of working household is not subject to a minimum amount of months or hours worked during the previous year. Thus, compared with the definition used by Eurostat, this proportion contains poor households with very little attachment to market work.

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9. This refers to the fact that female cohorts that currently enter the job market have a higher expected lifetime profile of participation than women of previous cohorts, reflecting higher educational levels and socio-cultural changes (see Burniaux *et al.*, 2003).

10. These projections are more pessimistic than some others as they incorporate the restrictive assumption of no further autonomous increase of cohort-specific participation beyond what is observed for the last cohort entering the labour market in 2000. On the other hand, they yield relatively more optimistic evolutions than projections based on constant participation rates by age and gender groups that do not contain any cohort dynamics and therefore imply inconsistent lifetime participation profiles across cohorts (see Burniaux *et al.*, 2003).

11. In Japan, the fall of the labour force reflects the prospect of a large demographic decline together with a very rapid pace of population ageing and the absence of a positive female "cohort effect", rather than the low participation level of older workers.

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Chapter 3

General Policies to Improve Employment Opportunities for All

Has the 1994 Jobs Strategy reform agenda proven to be effective in practice? The recent experience of OECD countries has been reassuring overall with labour market performance improving most strongly in the countries implementing the most vigorous reforms. Nonetheless, there appears to be considerable scope to update the Jobs Strategy recommendations, so as to better address new priorities and take advantage of new insights into good policy design. Indeed, a number of successful policy innovations during the past decade have expanded the toolbox of measures available to policy makers for improving labour market performance. Less positively, many countries have been reluctant to enact certain employment-friendly reforms, or have done so in a partial manner which has produced disappointing results or even created new problems.

This chapter analyses the general or framework policies which are required to support high levels of employment, while the next chapter analyses policy strategies for fostering high employment rates for specific population groups or labour market segments. Appropriate *macroeconomic* policies, which provide a stable economic environment while fostering strong job creation, are prominent among the general policies to be discussed. These are analysed in Section 1, while subsequent sections analyse *structural* reform strategies for labour and product markets. Section 2 analyses how social protection benefit systems and labour market programmes can best promote participation and employment, while also providing an adequate level of economic security to job losers and other persons without work. In Section 3, attention shifts to issues which have a strong bearing on labour demand, notably wage-setting institutions, the tax system, employment protection legislation and working-time regulation. Product-market regulation is also discussed since there is much evidence that increased competition in product markets can contribute to improving employment and earnings. Finally, Section 4 analyses continuing vocational training for the adult workforce.

The intent here is to revisit some of the main policy orientations contained in the 1994 Jobs Strategy in the light of the most important policy initiatives and new research findings since that year.[1] In assessing what has been learned in these policy areas, several questions recur. First, to what extent have OECD countries implemented policy changes, along the lines of the 1994 Jobs Strategy recommendations and what form have these reforms taken? Second, does the available evidence suggest that these reforms – or policy changes not foreseen by the Jobs Strategy – have, in fact, improved labour market performance? More broadly, how has the understanding of what works and for whom evolved, in light of recent policy experiences and new research results? Finally, which new policy priorities have come to the fore since 1994 and which of the priorities identified at that time have since receded in importance?

This exercise draws upon diverse types of evidence concerning the determinants of good labour market performance. Since the work of Layard *et al.* (1991), cross-country econometric estimates of the impact of particular policies and institutional arrangements on national labour market performance – which are estimated using aggregated data for a panel of OECD countries – have figured prominently in policy discussions. This type of evidence is considered below, when assessing the potential gains from structural reforms. Particular reference is made to key finding from a new OECD study of this type, which demonstrates that a number of the policy stances recommended in the Jobs Strategy have statistically robust associations with the aggregate unemployment rate (see Chapter 7 for an overview of this study, which is reported in full in Bassanini and Duval, 2006).[2] However, the discussion below will also consider findings from micro-econometric analyses of the impacts of policies on labour market behaviour, case studies of policy reforms and insights provided by economic theory. These additional types of evidence provide an essential check on the validity of the macro-econometric results and *vice versa*.[3] They also shed light on important questions of policy design and implementation that are not easily addressed by cross-country panel regression models estimated with aggregate data.

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Overall, there is evidence that the 1994 Jobs Strategy has been an effective programme to improve labour market performance, in the sense that the countries that have made the most determined efforts along the lines of the Jobs Strategy generally have been rewarded with reductions in unemployment (see Box 3.1). However, countries have focused on different combinations of the policy recommendations in the Jobs Strategy, indicating that different policy packages have yielded equally successful employment outcomes (see Chapter 6).

1. Macroeconomic policy and labour market performance

The 1994 Jobs Strategy recommended "to set macroeconomic policy such that it will both encourage growth and, in conjunction with good structural policies, make it sustainable, *i.e.* non-inflationary" (OECD, 1994a). Price stability and sound budget balances contribute to lower real interest rates and this, in turn, affects labour market performance through at least two channels: first, by stimulating investment and capital accumulation, raising labour productivity and employment; and second, as higher investment facilitated by falling real interest rates increases the rate and diffusion of innovation, there is an additional gain of labour productivity growth – which again may boost employment, as well as growth performance more generally.[4] A possible third channel is that a lowering of the cost of capital by reducing overall production costs may act in a manner similar to a tax wedge cut, increasing the consumption real wage relative to the production real wage.[5] Over and above the effects arising through real interest rates, a more stable macroeconomic environment with more limited fluctuations in activity reduces the scope for hysteresis-type mechanisms that turn cyclical unemployment into structural unemployment, and credible inflation targets may serve to stabilise expectations with beneficial effects on wage bargaining outcomes.[6] More generally, countries that have sustained long periods of economic expansion have also tended to experience rising labour force participation rates.

1.1. *Inflation and monetary policy*

In the decade prior to 1994, annual inflation rates in most OECD countries were brought down below 3%, sometimes from very high levels (Figure 3.1, Panel A). However, inflation remained above 3% in some southern European and central and eastern European countries, as well as in Korea and Mexico. Further progress was achieved during the past decade with the goal of price stability (defined as inflation rates ranging from 0 to 2%) being achieved in many but not all OECD countries (Figure 3.1, Panel B). This has generally taken place in the context of a shift towards forward-looking monetary policy, often accompanied by explicit or implicit medium-term inflation targets. At present, a majority of OECD countries are covered by formal inflation targeting, defined as an explicit target or a reference rate. For the participating countries in the European Monetary Union, the move towards price stability coincided with the abandonment of national monetary policy, with interest rates being set on the basis of developments in the euro area as a whole.

Several OECD countries recently have been faced with the risk of deflation, but only Japan experienced actual deflation with a continuous fall in aggregate price levels from 1998 until very recently. This occurred despite a reduction of policy-determined interest rates to zero and a large-scale injection of liquidity into the Japanese financial system. There has been growing recognition that the functioning of labour markets can be impaired when inflation is very low or prices falling because of the downward stickiness of nominal wages. Under such circumstances, real product wages may increase, with adverse

Box 3.1. **Overall reform effort and economic performance**

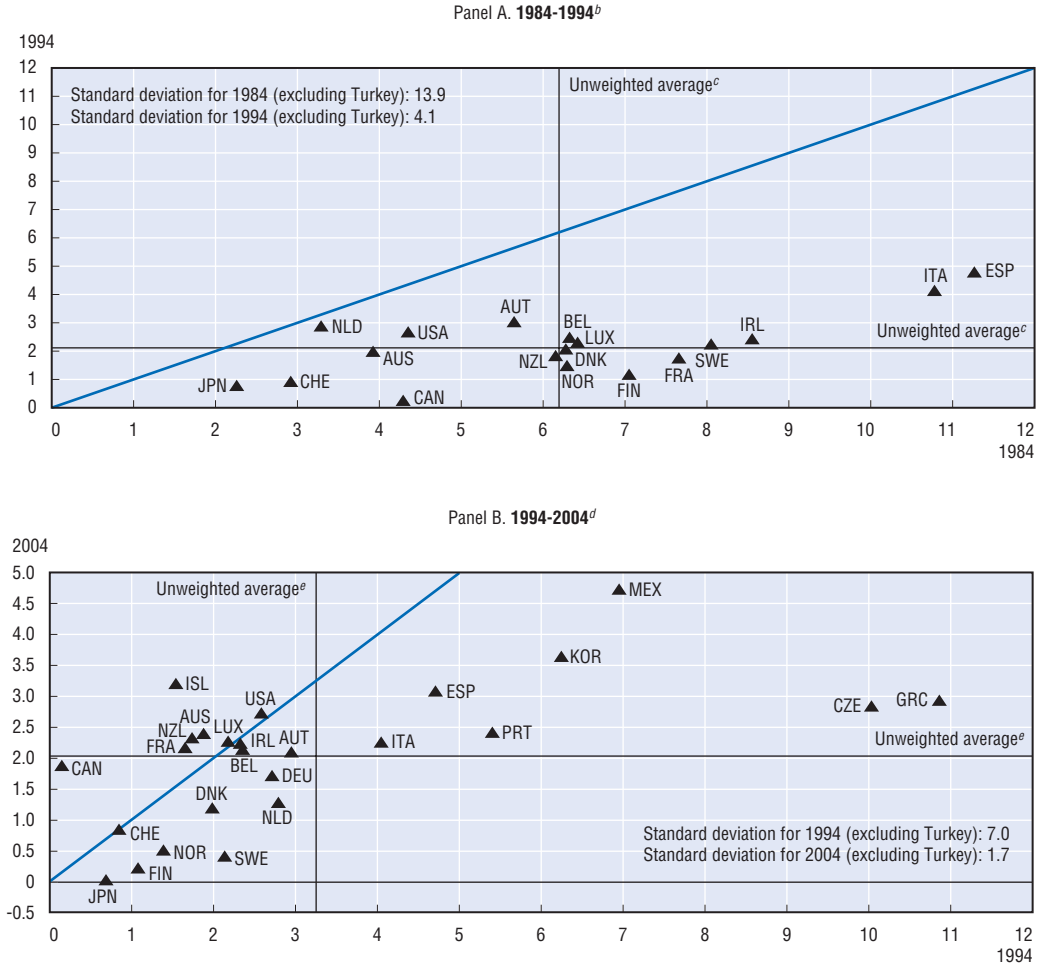
As will be described in this chapter, OECD countries have responded to the 1994 Jobs Strategy recommendations in diverse ways. The question arises of how to characterise and compare the overall reform efforts in different countries by using a single aggregate indicator that measures the general thrust of reforms. By nature, such a task involves a considerable degree of uncertainty and subjectivity as it is difficult to compare reforms that are qualitatively very different. Another methodological difficulty is finding a way to take into account the very different starting points of the countries being compared. Several attempts to construct an indicator of reform intensity have already been made (OECD, 1999b; Brandt *et al.*, 2005). These exercises have documented a positive cross-country association between higher scores for reform effort and greater improvements in aggregate labour market performance, but this finding is subject to a number of limitations. In particular, the ranking of countries according to indicators of this type is very sensitive to the weights ascribed to each policy measure.

However, this limitation can be partly overcome by using weights provided by econometric estimates of the impacts of policy settings on labour market performance. For instance, Bassanini and Duval (2006) calculate the change in the unemployment rate over the period 1994-2004 that is explained by changes of the institutional indicators corresponding to significant coefficients in their baseline unemployment equation (*i.e.* unemployment benefits generosity, tax wedge, product market competition and degree of corporatism). This change reflects the aggregate impact of institutional changes as measured by policy and institutional indicators and can be interpreted as an aggregate indicator of reform effort. However, the coverage of this indicator is not complete as it does not take into account policies and institutions not included in the baseline unemployment equation (such as pension and pre-retirement schemes) or policies that are difficult to quantify (such as activation schemes, working time regulations, work availability and eligibility conditions in unemployment benefit schemes). A second indicator is also calculated as the change in the employment rate of the population aged 25 to 64 that is explained by changes of the institutional indicators corresponding to significant coefficients in the employment equation of prime-age adults (Table 2.1 of Bassanini and Duval, 2006) and older-workers (Table 2.2 of Bassanini and Duval, 2006). The major difference of this indicator compared with the former is that it includes the impact of labour policies and institutions that affect the employment rate of older workers specifically, such as the implicit tax on continuing work.*

According to these two indicators, there is a group of countries where the policy-driven improvements in employment and unemployment over the period considered have been the most significant. This includes Ireland, New Zealand, Spain, the United Kingdom and the United States. At the other extreme, policy-driven employment and unemployment changes have been less favourable in Austria, Japan, Norway and Switzerland. These results differ significantly from those obtained in Brandt *et al.* (2005) in that they give more weight to tax reductions while non-quantified measures – such as activation programmes – are excluded. As a result, a number of countries that rank high in Brandt *et al.* have an intermediate position here (the Netherlands, Finland, Germany and Belgium). Nonetheless, both types of exercises are suggestive that countries undertaking vigorous action on the Jobs Strategy agenda have seen significant improvements in labour market performance.

* This indicator covers unemployment benefits generosity, tax wedge, union density, employment protection legislation, product market regulation and the degree of corporatism in wage setting, as well as the specific impact on older-workers employment rates of the implicit tax on continuing work and the standard retirement age.

Figure 3.1. **Evolution of inflation rates[a] across OECD countries, 1984-2004**



a) Annual percentage change of the consumer price index.
b) Some countries are out of scale: Greece (18.5, 10.9), Hungary (8.5, 18.9), Iceland (30.9, 1.3), Mexico (65.5, 7.0), Portugal (28.9, 5.4) and Turkey (48.4, 33.2).
c) Excluding Greece, Hungary, Iceland, Mexico, Portugal and Turkey.
d) Some countries are out of scale: Hungary (18.9, 6.7), Poland (33.2, 3.4), the Slovak Republic (13.4, 7.6) and Turkey (105.2, 10.6).
e) Excluding Hungary, Poland, the Slovak Republic and Turkey.

Source: OECD Economic Outlook database. Statlink: *http://dx.doi.org/10.1787/136042682302*

impact on overall labour demand, and relative wages become rigid, with detrimental impact on the allocation of labour resources. Furthermore, the scope for monetary policy to act to stabilise inflation and activity can become circumscribed at low levels of inflation. With inflation relatively low at the onset of the most recent downturn in the world economy, the negative shock risked pushing inflation below zero in a few additional countries. With the experience of Japan showing the difficulties for policy to tackle deflation, once it had taken root, the monetary authorities in the United States took pre-emptive action, lowering the interest rate to its lowest level in decades during the most recent recession. By contrast, the monetary authorities in the euro area adopted a more conservative stance, judging that there was still some risk of inflationist tendencies.

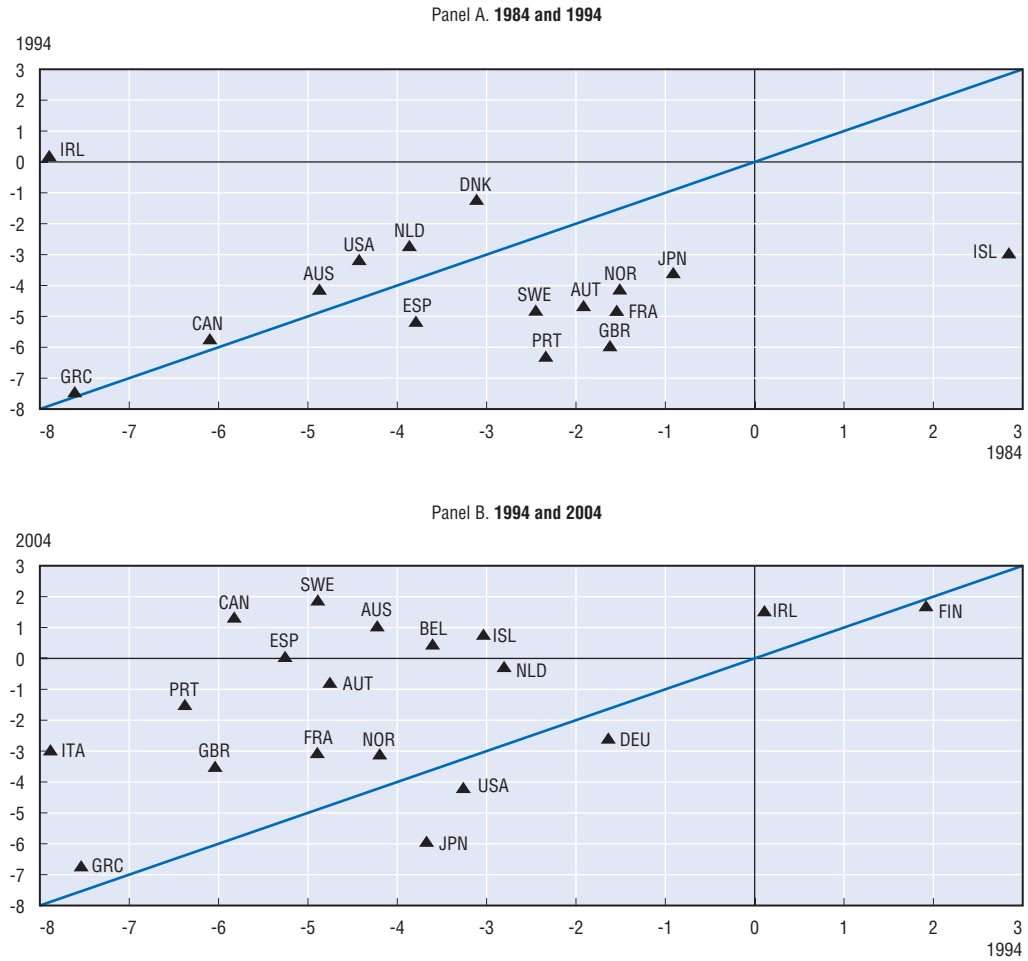
The credibility, transparency and independence of monetary policy play an important role in "pegging" economic actors' inflation expectations to the target, thus speeding up

the adjustment following policy interventions. The structural reforms discussed later in this chapter may also contribute to enhancing the effectiveness of monetary policy in reducing macroeconomic volatility. For example, labour market reforms may dampen the impact of sectoral or regional shocks on the economy and thus contribute to stabilising aggregate supply (see Section 1 of Chapter 6). Such a development allows monetary policy to respond more effectively to aggregate demand shocks. Monetary policy can also attain explicit or implicit inflation targets with a lower impact on output and employment when wages and prices are more flexible. Similarly, more efficient financial markets could improve the transmission mechanism of the monetary policy and reduce the need for large policy-driven interest rate adjustments.

1.2. Fiscal policy

With respect to public finances, large deteriorations took place during the late 1980s and the early 1990s in most European countries, although Denmark, Ireland and the Netherlands were notable exceptions (see Figure 3.2, Panel A). The resulting public deficits were substantially reduced during the next decade with most European countries

Figure 3.2. **Evolution of government structural budget balances[a] across OECD countries, 1984-2004**



a) Percentage of GDP.

Source: OECD Economic Outlook database.

Statlink: *http://dx.doi.org/10.1787/188724813782*

reporting deficits close to or below 3% of GDP in 2004 and some even moving into surplus (Figure 3.2, Panel B). However, structural budget deficits were only marginally lower in 2004 than a decade earlier for the OECD area as a whole, due to substantial budgetary slippage in several of the largest countries. In the United States, after the cyclically-adjusted general government budget balance strengthened by the equivalent of more than 6% of GDP in the 1992-2000 period, it subsequently weakened by more than 5% of GDP. Some slippage has also occurred in the first half of the current decade in a few large European countries, in particular France and Germany. Japan was already confronted with a very large budget deficit in the latter part of the 1990s and it has tended to rise still further in the past five years.

Fiscal policy can play a role in stabilising aggregate demand through built-in rules (automatic stabilisers) and potentially through discretionary changes in spending and taxation. Fiscal stabilisation is particularly important in countries that do not have national monetary policy. However, to allow fiscal policy to play a role for stabilisation purposes, it is necessary to have overall sound public finances, with budget positions improving in upswings to allow for a fall in public debt relative to GDP. This has not been the case over the past cycle in many OECD countries, which entered the downswing with a weak underlying fiscal balance that limited their scope even to allow automatic stabilisers to work.

1.3. Coordination of macroeconomic and structural policies

The setting of macroeconomic policy can have important implications for how rapidly the benefits of structural reforms are reaped. Labour market and other structural reforms increase potential output and open up a negative output gap – provided that aggregate supply and demand in the economy were initially in balance. This, in turn, puts downward pressure on inflation, setting in motion adjustment mechanisms that should eventually cause aggregate demand to increase and absorb potential supply. However, this could be quite a protracted process, particularly in the larger and less open OECD countries, because one of the adjustment mechanisms underlying the transition towards attaining the long-run gains from structural reforms is through lower wage and price inflation improving international competitiveness. This channel suggests that gains will accrue faster in more open countries, a prediction that is consistent with the empirical evidence. For example, Duval and Elmeskov (2005) and Giorno *et al.* (2005) report simulations based on the OECD Interlink Model which show that, with constant exchange rates and no monetary policy intervention, countries as open as the Netherlands or Belgium would attain the new more favourable economic conditions following reforms significantly faster than countries that are less open to trade. Indeed, the negative impact of higher real interest rates on domestic demand could reduce or even neutralise the relatively small positive impact of real exchange rate depreciation on net exports in less open economies.

Growth-enhancing structural reforms may provide scope for monetary policy to react (*e.g.* by lowering interest rates when inflation rates fall below target), so as to stimulate aggregate demand and permit closer synchronisation with the increase in potential output. The increased emphasis on inflation targeting over the past decade has therefore arguably brought forward the benefits of structural reforms, provided that reactions to deviations from targets are symmetric for "excessive" and "deficient" inflation. If macroeconomic policy were to adjust more promptly to the diminishing inflation potential, aggregate demand could more quickly fill the output gap created by structural

reforms, a role that may be particularly important in larger and less open economies (see Box 3.2). However, such an approach would only be appropriate in the context of credible commitments to implement a series of structural reforms, prudent estimates of the potential contribution of those reforms to expanding potential output and the prior achievement of a stable, low inflation environment. Furthermore, the countries in the European Monetary Union do not have the option of accompanying structural reforms at the national level with national monetary policies of this type.

Higher potential output in the wake of labour and product-market reforms will also tend to strengthen fiscal positions by raising structural revenues and lowering structural spending. Such improvement can be used to lower tax wedges, with additional benefits for labour market performance and the economy more generally (see Sub-section 3.2 below). It can also be used to raise public spending in areas that may enhance the efficiency of the economy. However, given the unsatisfactory state of public finances in most member

Box 3.2. **Monetary policy can bring forward the benefits of structural reforms: an illustration for the euro area**

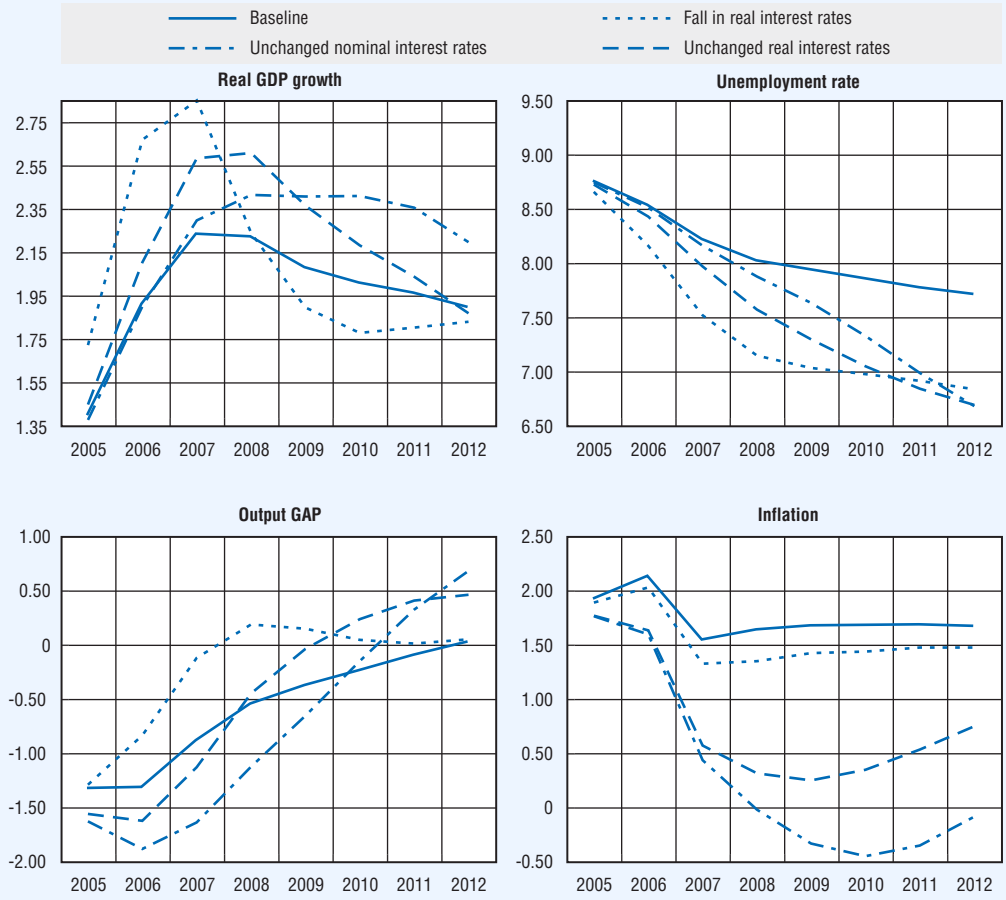
Monetary policy could play a useful role in speeding the attainment of the long-run benefits of structural reforms, especially in "big" countries that are less open to international trade. This possibility is illustrated in the figure below which reports simulations carried out using the OECD Interlink Model for the euro area (see also Giorno *et al.*, 2005). A baseline scenario, under which the unemployment rate converges to the current OECD estimate of the "non-accelerating inflation rate of unemployment" (NAIRU), is compared with three alternative scenarios, under which structural reforms are assumed to have resulted in a 1 percentage point reduction of the NAIRU.[1] The reform scenarios differ in the assumption that is made about how monetary policy reacts to this structural improvement, that is, according to whether it is assumed that: *i)* nominal interest rates are held constant; *ii)* real interest rates are held constant; or *iii)* real interest rates are reduced by 100 basis points. Nominal exchange rates are assumed to remain constant in the scenarios with unchanged nominal and real interest rates,[2] whereas the euro is assumed to depreciate in nominal terms – leading to a real depreciation of 5% – in the scenario assuming a cut in real interest rates.

By construction, the impact on potential growth is basically identical under the three alternative monetary policy assumptions. However, the short-term impact is quite different. In the scenario with unchanged nominal interest rates, the output and labour market gains from reforms are slow to materialise because real interest rates rise as a negative output gap emerges causing inflation to decelerate. The output gap remains below the baseline path for five years, reinforcing deflationary pressures. Conversely, in the real-interest-rate-cut scenario output gains accrue more rapidly. Indeed, the output gap is above baseline during the entire simulation period. The constant-real-interest-rate scenario lies in an intermediate position between these two scenarios.

1. It is assumed that the NAIRU reduction takes place gradually during the first three years of the simulation period.
2. A gradually appreciating euro could be conceived in these scenarios for a number of reasons: 1) in the nominal interest rate scenario, real interest rates rise compared to baseline; 2) after the initial real depreciation, current account balances improve compared to baseline; and 3) the inflation rate falls compared to baseline. However, an appreciating euro would exert even more deflationary pressure, leading to very low or even negative inflation. Therefore, a constant nominal exchange rate assumption was retained in the simulations. It should be kept in mind, however, that with an appreciating euro the transition path towards new more favourable conditions following reforms could be even longer.

Box 3.2. **Monetary policy can bring forward the benefits of structural reforms: an illustration for the euro area** *(cont.)*

Simulated impact of a NAIRU reduction in the euro area under alternative monetary assumptions



countries at present, there is a strong case for using any fiscal gains from structural reforms in the near term to reduce excessive budget deficits and debt in many cases, especially taking into account the expected budgetary pressures from population ageing.

Targeted fiscal policies may also play an important role in complementing structural reforms, provided the starting point for government finances is sound. To take an example, the EPL reform introduced by the Spanish government in 1997 reduced severance pay provisions for permanent workers while also substantially cutting social contributions on new permanent contracts. This gave employers additional incentives to transform fixed-term contracts into permanent ones and may have increased the speed with which such jobs were created. In a similar vein, Auer (2000) underlines that, while labour market policies and reforms had a positive impact on employment in Austria, Denmark, Ireland and the Netherlands over the past two decades, macroeconomic policy also provided a fiscal stimulus to the economy. More generally, recent empirical studies find that fiscal surpluses or sound public finances tend to favour reform in the labour market, possibly because they create room to finance the up-front costs of certain structural reforms (International

Monetary Fund, 2004; Duval and Elmeskov, 2005). To the extent that reducing structural unemployment improves public budget balance (see Sub-section 1.2 of Chapter 6 for a quantitative analysis this link), structural reforms that succeed in improving labour market performance may pave the way for further structural reforms, creating a virtuous cycle, whereby initial reforms offer scope for further reforms.

2. Impact of welfare systems and labour market programmes on participation and employment

All OECD governments are committed to providing income support for the unemployed and other non-employed individuals of working age. But how can it be ensured that income support is associated with both opportunities and incentives to find a new job? Cutting benefit levels would automatically increase the incentive to move from welfare to work, but job seekers may not necessarily be able to find "suitable" employment and social hardship might result for those who do not enter employment at all, or only slowly. How best to provide income support for jobseekers while at the same time fostering their re-integration into employment is a difficult challenge that was addressed in the 1994 Jobs Strategy and has subsequently attracted sustained attention from both OECD governments and researchers.

This section surveys recent policy developments and research findings related to how welfare systems and labour market programmes can best meet concerns about poverty and insecurity, while minimising labour supply disincentives. As in the 1994 Jobs Strategy, unemployment benefit systems and active labour market programmes, as well as their co-ordination, are at the centre of this discussion.[7] However, increased emphasis is placed on how other social benefits, such as social assistance and invalidity benefits, fit into the picture. A first reason for devoting increased attention to a broad range of social protection benefits is the now widespread realisation that tackling the potential adverse effects of ageing on the growth of living standards will require measures to lower inactivity rates, and not just unemployment rates (Burniaux *et al.*, 2003; OECD, 2003a, 2006c). Many inactive persons of working age receive social protection benefits and it is thus important that these benefit programmes do not create barriers to employment. A second reason relates to the recent evolution of social policy where employment integration is increasingly viewed as being central for tackling poverty and social exclusion.[8] Accordingly, it is worth assessing whether "activation" strategies, originally applied to unemployment benefit recipients, can be successfully extended to recipients of other types of social benefits.

2.1. Unemployment benefits and the incentive to find a job

The 1994 Jobs Strategy recommendations reflected a concern that high unemployment benefits that are available for a long duration have an adverse effect on labour market performance. Such benefits may raise unemployment via two mechanisms: *i)* by reducing the job-search intensity of the unemployed and their willingness to accept job offers, benefits can result in longer periods of unemployment or even effective labour force withdrawal on the part of some benefit recipients; and *ii)* by lowering the opportunity cost of not working, they may put upward pressure on workers' wage claims and ultimately reduce labour demand.[9] On the other hand, unemployment benefits may allow jobseekers more time to find better matches, thereby enhancing job stability and productivity. In addition, adequate income support for the unemployed is widely seen as being necessary for cushioning the impact of job losses on living standards. Accordingly, no recommendation was made concerning the appropriate level and duration of unemployment benefits, but

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governments were advised to review whether their benefit systems were too generous and should be reduced. Governments were also advised to take steps to more effectively condition the receipt of these benefits on work availability and active job search. A final recommendation was that governments consider making employers pay some of the costs of layoffs (*e.g.* by establishing a link between firms' layoff records and their contributions to the unemployment benefits system, so-called "experience-rating").

Policy developments since 1994

A number of OECD countries have lowered replacement rates or the duration of benefits since 1994 (Table 3.1). For example, Finland reduced benefit replacement rates somewhat, from a comparatively high level, as did some central and eastern European countries from lower levels.[10] By contrast, France, starting from a position with an already relatively high benefit level, abandoned its practice of decreasing the benefit payment over the course of an unemployment spell, thereby increasing the replacement rate later in the spell. Several countries with only rudimentary benefit systems in 1994 have since strengthened them. Italy raised benefits significantly and Korea significantly extended the coverage of unemployment benefits – a reform introduced as part of the response to the 1997 financial crisis. Some cuts in the maximum entitlement periods have taken place in a number of countries, with Korea being unique in extending benefit periods.

Countries have been more active in pursuing other reforms intended to encourage benefit recipients to find a job more quickly:

- Work-availability conditions have been tightened in a number of countries. These reforms have typically circumscribed the scope for the unemployed to reject job offers because of occupational incompatibility with the previous job, pay and/or workplace location.
- More effective use of sanctions for refusal of suitable job offers has often accompanied tighter work-availability conditions. Rather than increasing the size of the sanction triggered by violations, most countries have emphasised more systematic application of existing sanctions, or even combined greater use of sanctions with some reduction in the size of the sanction imposed for first violations (*e.g.* as recently in France).
- Eligibility conditions were tightened in a number of countries, in most cases increasing the minimum period of insured employment required to qualify for benefits. For example, Norway increased the minimum insurable income, while Sweden ended the practice of allowing unemployment insurance exhausters to re-qualify for benefits by enrolling in a training course (the so-called "carousel" effect).
- Waiting periods before the unemployed are eligible to receive benefits were introduced in a few countries, with the aim of reducing the use of unemployment benefits as a subsidy to sectors with irregular activity. By contrast, there appears to have been little or no movement to make employers pay some of the costs of lay-offs, for example, through a requirement that they pay the first months of unemployment benefits or the experience-rating of insurance premiums.
- A number of countries introduced possibilities to combine benefit receipt and earnings at least for a limited period of time. Other countries widened these possibilities by lowering withdrawal rates for unemployment or social assistance benefits (*i.e.* the rate at which these benefits are withdrawn as wage income increases). Similarly, France, Germany and the United States have introduced wage insurance schemes for some job losers becoming re-employed at a wage below their previous pay level (OECD, 2005a,

Table 3.1. **Unemployment benefit systems: policy reforms over the 1994-2004 period**[a]

	Benefit generosity		Others conditions						
	Replacement rates	Duration	Tightened work availability conditions	Condition benefits on training	Eligibility conditions	Waiting periods	Lower work disincentives	Establish or strengthen UI schemes	Limit re-qualification
Australia			+	+			+		
Austria	[+, -]		X[b]		+	+	+		+
Belgium		+	+		+		+		
Canada	[+, -]	+					+		
Czech Republic	[+, -]	-	+		+		+		
Denmark	+	+	+	+	+		+		
Finland	[+, -]		+	+	+	+	+		
France	-	+	+				+		
Germany	[+, -]	+	+						
Greece							+	+	
Hungary	+	+	+				+		
Iceland		+	+		+		+		
Ireland	+		+				+		
Italy	X[c]		+	+				+	
Japan		[+, -]					+		
Korea	X[c]	X[c]						+	
Luxembourg			+						
Mexico									
Netherlands		+	+		+				
New Zealand			+				+		
Norway	[+, -]	+	+		+	+	-		+
Poland	+	[+, -]	+	+	+				
Portugal				+			+		
Slovak Republic	+		+				+		
Spain	+	-	+				+		
Sweden	[+, -]		+	+	+	+			
Switzerland		[+, -]	+	+	+	+			
Turkey				+				+	
United Kingdom		+		+					
United States				X[d]			X[d]		

a) +: Reforms following the OECD Jobs Strategy.
-: Reforms contrary to the OECD Jobs Strategy.
[+, -]: Reform elements going in different directions.
b) Implemented in 2005.
c) Rudimentary benefits expanded.
d) Confined to welfare recipients.
Source: OECD Economic Surveys.

Statlink: *http://dx.doi.org/10.1787/458555224746*

Chapter 1). The intention of these reforms is to raise incentives for the unemployed to take up part-time jobs or jobs paying less than they previously earned, by offering a top-up to earnings on the new job, at least for a limited period of time.[11]

New evidence

The level and duration of unemployment benefits. Although there have been modest retrenchments in the generosity of unemployment benefits recently in some OECD countries, the OECD's summary measure for gross replacement rates indicates that benefits continue to be much more generous than was the case several decades ago in a considerable number of OECD countries, particularly in continental Europe.[12] Net replacement rates

(*i.e.* post-tax measures of benefit generosity) provide more precise information concerning income security and work incentives, but only limited historical data are available for these indicators. In the nine countries for which data are available (Table 3.2, Column 3), net replacement rates fell during 1995 to 2004 in six (most strongly in Finland, the United States and the Czech Republic) and rose in three (most strongly in France).

Recent trends in benefit levels and durations do not suggest a convergence in national practices (apart from a catch-up effect for countries which, until recently, had no – or only a very limited – unemployment benefits system), and benefits continue to be substantially more generous in some countries than in others. Indeed, distinct regional tendencies are evident within the OECD area, with both initial *net* (post-tax) replacement rates and maximum benefit durations being substantially more generous in the Nordic countries and some other European countries, than elsewhere (Table 3.2, Columns 1 and 2). The persistence of generous unemployment benefits in a number of OECD countries suggests that there are major political barriers to substantially reducing the degree of income protection provided to job losers.[13] However, it might also indicate national differences in the priority attached to income security or scepticism concerning whether the efficiency gains from lowering benefits would be as high as was argued in the 1994 Jobs Strategy. Recent economic research sheds some light on this latter possibility.

The evidence from cross-country panel regression models substantiates concerns that generous benefits tend to raise the equilibrium level of unemployment. With only a few exceptions, the econometric studies surveyed in Table 3.3 confirm that higher benefit levels and durations are associated with more unemployment. In a majority of these studies, the impact of benefits on unemployment is highly significant across all alternative specifications and, overall, long benefit duration is found to be more detrimental to employment than high replacement rates. Though Bertola *et al.* (2002b) do not identify any significant impact on overall unemployment, their regressions show significant relationships between benefit generosity and lower employment of women, youth and older workers, relative to prime-age men. Bassanini and Duval (2006) confirm these results by identifying a highly significant positive relationship between unemployment and benefit replacement rates across all tested specifications. For the average OECD country, the base-case estimates imply that a 10 percentage point reduction in the gross replacement rate would reduce the equilibrium unemployment rate by 1.2 percentage points and increase the employment rate by 1.7 percentage points for prime-age men and 3.2 percentage points for prime-age women (Tables 7.A1.1 and 7.A1.2).

Recent econometric studies using micro-data also suggest that more generous unemployment benefits significantly increase unemployment durations. Krueger and Meyer (2002) survey many of these studies, particularly those for the United States, and conclude that the elasticity of unemployment benefit duration with respect to benefit generosity is approximately 1.0, just above the top of the 0.2 to 0.9 range identified from earlier studies by Layard *et al.* (1991).[14] A number of recent micro-data studies for European countries have obtained similar estimates (see Grubb, 2005; and Holmlund, 1998).

However, several recent empirical studies conclude that labour supply disincentives from generous unemployment benefits can be off-set, at least to a significant degree, by benefit administration practices that use financial sanctions (*i.e.* benefit cuts) to enforce an obligation to actively search for work and to accept reasonable job offers (Boone *et al.*, 2004; Hasselpflug, 2005).[15] Such an off-set is consistent with the estimated interaction effect

Table 3.2. **Net replacement rates and unemployment insurance benefit duration in 26 OECD countries, 2004**

	Initial net replacement rate[a] (percentage of net earnings in work)	Unemployment insurance benefit duration[b, c] (months, equivalent initial rate)	Average of net replacement rates over 60 months of unemployment[d] (percentage of net earnings in work)
Asia	**54**	**8**	**8**
Japan	62	8	48 (+2)
Korea	47	7	42
English-speaking, non-Europe	**54**	**4**	**4**
Australia	45	0	46
New Zealand	56	0	54
Canada	63	9	48
United States	54	6	36 (–6)
English-speaking Europe	**51**	**11**	**11**
Ireland	49	15	64
United Kingdom	54	6	53 (–1)
Nordic Europe	**71**	**34**	**34**
Denmark	70	48	70
Finland	70	23	65 (–9)
Norway	68	36	58
Sweden	75	28	63
Central western Europe	**70**	**18**	**19**
Austria	63	9	57 (–2)
Belgium	61	No limit	61
France	75	23	57 (+4)
Germany	69	12	66 (–3)
Netherlands	74	24	66
Switzerland	77	24	69
Southern Europe	**65**	**16**	**16**
Greece	55	12	35
Italy	54	6	22 (+2)
Portugal	83	24	68
Spain	67	21	49
Eastern Europe	**55**	**9**	**9**
Czech Republic	56	5	53 (–5)
Hungary	49	9	39
Poland	59	12	54
Slovak Republic	56	8	40

a) Initial net replacement rate is an average of cases of a single person and one-earner married couple, an average of cases with no children and with two children, and an average of cases with previous earnings in work 67% of average production worker (APW) level, 100% of APW level and 150% of APW level. Typical-case calculations relate to a 40-year-old worker who has been making contributions continuously since age 18. Net income out of work includes means-tested benefits (housing benefits are calculated assuming housing costs are 20% of APW earnings) where relevant but not non-categorical social assistance benefits. Taxes payable are determined in relation to annualised benefit values (*i.e.* monthly values multiplied by 12), even if the maximum benefit duration is shorter than 12 months. See the source for further details.

b) Duration is shown as zero for Australia and New Zealand since they do not operate unemployment insurance schemes. The net replacement rates in the first column for these two countries reflect means-tested unemployment benefits which are not subject to a time limit.

c) Months equivalent initial rate for the Czech Republic, the Slovak Republic and Spain where the benefit level declines during the UI period (*e.g.* for Spain, where the nominal replacement rate declines from 70% to 60% after six months, the months equivalent initial rate is calculated as six months plus 6/7ths of 18 months).

d) As note *a)* except that the net replacement rates are averaged over five years of unemployment, the three previous earnings levels considered are 67%, 100% and 150% of the average wage (all workers), and non-categorical social assistance benefits are included in out-of-work net income. Values in brackets are percentage point changes between 1995 and 2004, which are only available for a small number of countries. Data for Korea and New Zealand correspond to 2001.

Source: OECD database on Benefits and Wages. Statlink: *http://dx.doi.org/10.1787/182506528237*

Table 3.3. **Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: unemployment benefits**

Study	Outcome	Comments
Bassanini and Duval (2006)	++	
Baker, Glyn, Howell and Schmitt (2005)	No or -	
Di Tella and MacCulloch (2005)	No	
Nickell, Nunziata and Ochel (2005)	++	Impact of benefit duration significant in most but not all cases.
International Monetary Fund (2003)	+	Only in the absence of country specific time-trends.
Nunziata (2003)	++	
Bertola, Blau and Kahn (2002a)	+	Interaction of replacement rates with shocks not significant in all cases.
Bertola, Blau and Kahn (2002b)	No	But significant increase of group-specific employment differentials relative to prime-age workers.
Fitoussi, Jestaz, Phelps, Zoega (2002)	+	
Jimeno Rodriguez-Palanzuela (2002)	++	Benefit duration.
Belot and van Ours (2001)	+	
Morgan and Mourougane (2001)	+	Wage equation.
Blanchard and Wolfers (2000)	+	Benefit duration always significant.
Daveri and Tabellini (2000)	+	Significant only for unemployment levels.
Elmeskov, Martin and Scarpetta (1998)	++	
Nickell (1997, 1998)	++	Benefit duration only significant for long-term unemployment in Nickell (1997).
Scarpetta (1996)	++	

No: No significant impact on unemployment.
+/-: Significant positive/negative impact on unemployment in most but not all cases.
++/--: Significant positive/negative impact on unemployment in all cases.

Statlink: *http://dx.doi.org/10.1787/321804084706*

between unemployment benefit generosity and spending on active programmes in Bassanini and Duval (2006), provided that high spending coincides with strong emphasis on activation (see Sub-section 1.2 of Chapter 7). It is also consistent with more qualitative assessments of how some OECD countries recently achieved sharp reductions in the number of unemployment benefit recipients, while maintaining generous benefits (OECD, 2005a, Chapter 4). And case-study evidence suggests that job search monitoring and sanctions are most effective when they are incorporated into a broader "activation" strategy (see Sub-section 2.3).

More generally, the labour supply distortions which unemployment benefits can create should also be balanced against the potential efficiency gains from these schemes. Such efficiency gains have been identified in several empirical studies:

- Using data for the United States, Gruber (1997) confirms that unemployment benefits play an important role in smoothing consumption following layoffs and hence represent a valuable form of insurance that generally is not available from private markets.[16]
- Acemoglu and Shimer (1999, 2000) argue that substantial productivity gains may result from the incentives that unemployment insurance provides for workers to seek higher productivity jobs. Polachek and Xiang (2005) provide some additional evidence that this gain in matching efficiency may be quite large.

Benefit administration. Since the Jobs Strategy was formulated in 1994, the OECD has continued to monitor member countries' experiences with benefit administration and the implementation of labour market programmes more broadly (OECD, 2001, 2003a, 2005a). Several broad themes have emerged that are useful for orienting policy choices, even if their implementation "on the ground" requires a finer-grained analysis of organisational arrangements and procedures.

A good illustration of the importance of benefit administration is provided by the difficulties many countries have encountered in enforcing the principle that receipt of unemployment benefits is conditional upon availability for work and active job search. The Danish Finance Ministry has documented availability criteria that benefit recipients should fulfil in order to be entitled to unemployment benefits, as specified in the legislation of 25 OECD countries in both 1997 and 2004 (Hasselpflug, 2005). Eligibility rules of this type are present in all cases and are often quite extensive, including behavioural requirements (*e.g.* to engage in active job search or employment programmes), limitations of the acceptable grounds for refusal of job offers (*e.g.* the extent to which job search can be restricted to certain occupations or locations) and benefit sanctions (*e.g.* the situations that can trigger sanctions and their severity). A summary indicator of the overall tightness is proposed, which is calculated as a weighted average of numerical scores assigned to national legal rules concerning eight aspects of availability criteria. This indicator documents considerable variance in national legislation, with the Netherlands, and the Czech and Slovak Republics appearing to have the strictest requirements for benefit receipt in 2004.

Based on a close analysis of actual practice, Grubb (2000) concludes that the formal strictness of legislation in this area, while important in its own right, is often an unreliable guide as to the actual impact of eligibility criteria on the job search behaviour of unemployment benefit recipients. A major determinant of the actual impact of these formal rules is how they are applied by case workers, who may exercise considerable discretion over how to apply often very general criteria to individual cases.[17] Indeed, data on the actual sanction rates (as reported in Gray, 2003) do not appear to accord closely with the formal strictness of legislation. Similarly, these eligibility requirements are unlikely to be of much practical importance unless the public employment service (PES) is in regular contact with benefit recipients and has well-established procedures for monitoring job-search activity. Often, this has not been the case.

In short, effective implementation of work availability criteria is best approached as part of a comprehensive policy of activating benefit recipients, rather than as a stand-alone policy of policing access to benefits. Activation strategies are discussed below in connection with active labour market programmes (ALMPs) in Sub-section 2.3. First, however, the analysis of the impact of benefit generosity on the financial incentives to work is extended and deepened by taking account of a wider range of social protection benefits and their interaction with the tax system in Sub-section 2.2.

The inaction of government *vis-à-vis* the Jobs Strategy recommendation to make firms pay part of the costs of layoffs contrasts with the increased prominence that researchers have given to the possibility that an appropriately structured *layoff tax* would increase efficiency by forcing employers to internalise social costs related to layoffs.[18] A frequent theme in these studies is that it may be possible to better reconcile efficient labour turnover with employment security by enacting a reform package that combines some loosening of employment protection legislation in countries where it is too strict, with experience-rated unemployment insurance benefits – which acts as a tax on layoffs – and efficient ALMPs (see Sub-section 2.3). Consistent with this reasoning, a number of empirical studies find that the experience-rating of employers' contributions to the US unemployment insurance system significantly reduces the incidence of layoffs and frictional unemployment.[19]

Lessons

Recent experience largely confirms the Jobs Strategy recommendations in this area, while reinforcing the importance of coordinating the unemployment benefits system with other labour market programmes:

- Policy makers should bear in mind that overly generous unemployment benefit systems – particularly those offering benefit entitlements of long or indefinite duration – have the potential to create large labour supply distortions. Thus, the Jobs Strategy recommendation that countries review whether benefits are too high continues to be timely.[20]
- It has also become clear, however, that good benefit administration – which enforces the work availability conditions and is effectively integrated with policies to make work pay and ALMPs – improves this trade off, making it more feasible for unemployment benefit systems to cushion income losses from unemployment and facilitate efficient job matching. This suggests that countries placing a high priority on reducing income insecurity related to unemployment may be able to reconcile relatively generous benefits with high employment, provided they are able to operate effective activation measures and willing to provide the resources necessary to do so.
- In countries where employment protection rules are strict, there may be efficiency gains from a reform package trading-off a relaxation of EPL against improvements to unemployment benefits and re-employment services for job losers (see Sub-section 3.3).

2.2. The combined impact of social protection benefits and taxes on labour supply and policies to make work pay

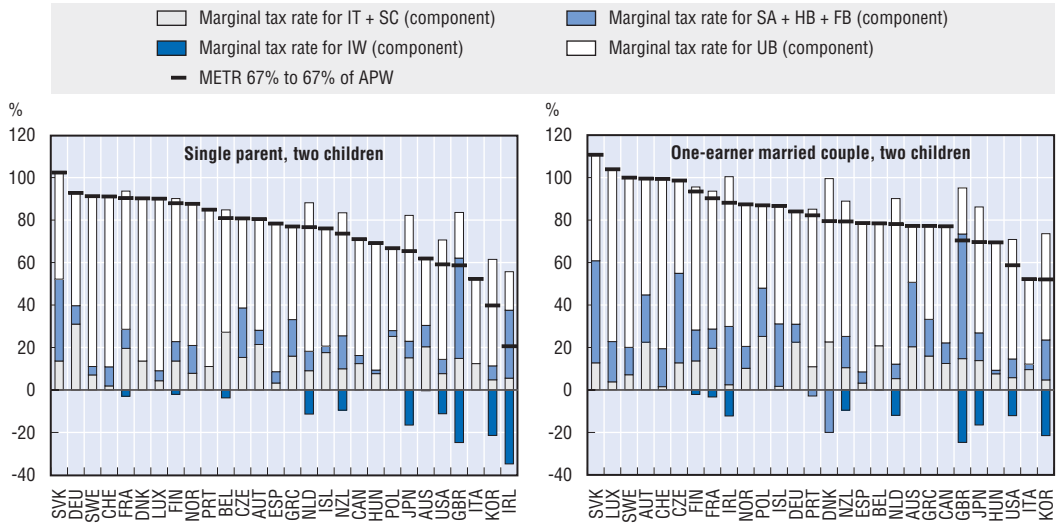
The 1994 Jobs Strategy recommended that steps be taken to make sure that tax and benefit systems do not interact so as to create unemployment or inactivity traps. These traps arise when individuals – particularly low-productivity workers who qualify for a social protection benefit – have very little or no financial incentive to enter employment. Low-pay traps refer to a closely related danger, namely that workers in part-time or low-wage jobs may have little or no financial incentive to increase their hours of work or to seek jobs offering higher wages. This section assesses the combined impacts of benefit and tax systems on the financial incentive to work and hence employment outcomes, as well as the role that employment-conditioned benefits and other policies to "make work pay" can play in facilitating the move from welfare to work.

Financial incentives to work and their impact on employment

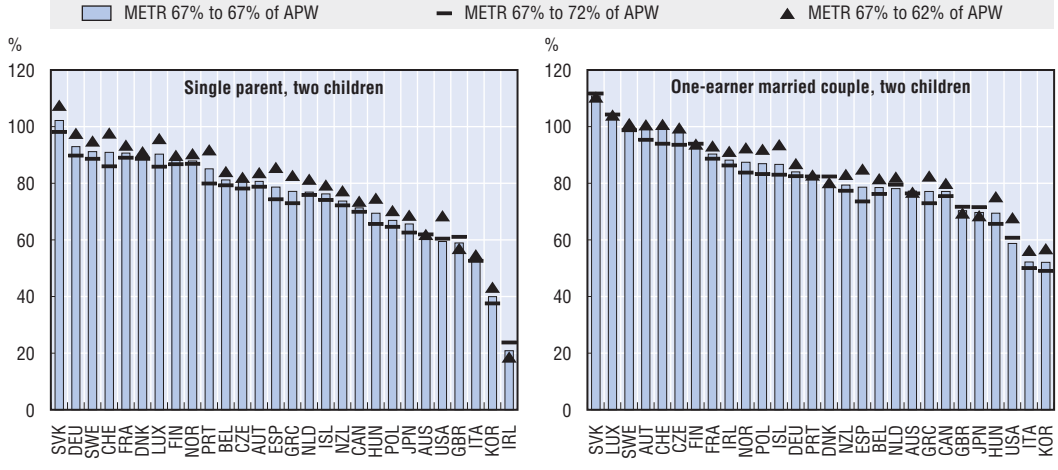
In most OECD countries, some recipients of social protection benefits have little or no financial incentive to work, because the combined impact of increased tax payments and the withdrawn income-tested benefits so strongly offsets the potential gain in disposable income from increased earnings. The marginal effective tax rate (METR), which is a comprehensive indicator of the leakage between gross earnings gains and the resulting rise in disposable income, provides a useful measure of these disincentives.[21] Figure 3.3, Panel A presents estimates of the METRs faced by low-wage job losers receiving unemployment benefits for two family situations.[22] In many countries, the financial incentives to become re-employed are small or vanishing, with METRs in excess of 80% and occasionally even exceeding 100%. As was discussed in Sub-section 2.1, overly generous unemployment benefits – which are withdrawn when a new job begins – tend to discourage labour supply by raising the METR (*cf.* the UB component of the METRs in Figure 3.3, Panel A). However, other benefits and taxes also play important roles (*cf.* the SA + HB + FB and IT + SC components, respectively) and can

Figure 3.3. **Financial returns to work for unemployed, inactive and low-paid individuals, 2002**

Panel A. **Decomposition of the METR moving from unemployment to full-time work at wage level = 67% of APW, with previous earnings = 67% of APW**[a]



Panel B. **METRs when moving from unemployment to full-time work at wage levels = 67%, 72% and 62% of APW, with previous earnings = 67% of APW**[a]



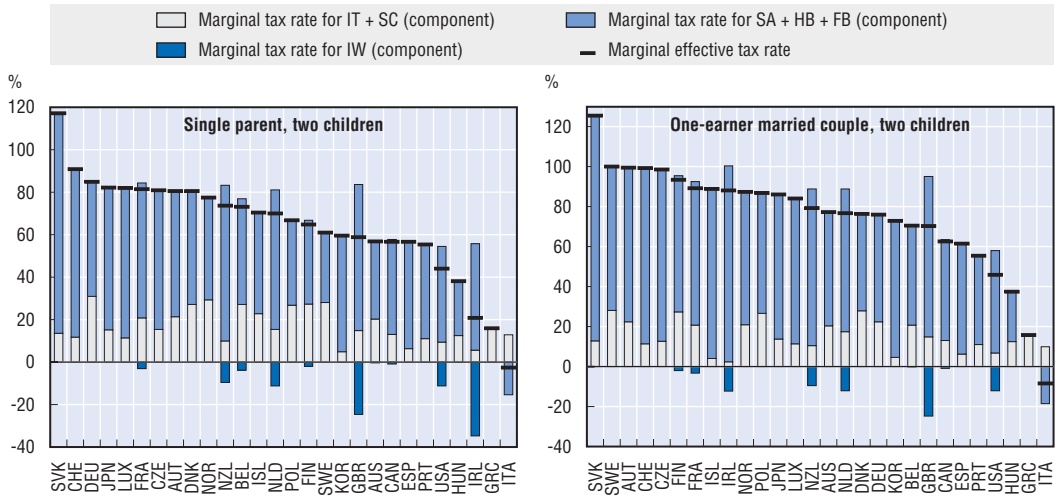
FB: Family benefits
HB: Housing benefits
IT: Income tax
IW: In-work benefits
METR: Marginal effective tax rate
SA: Social assistance
SC: Social security contribution
UB: Unemployment benefits

exacerbate the resulting "unemployment trap", whereas in-work benefits have the opposite effect in the countries that have such schemes (*cf.* the IW component).

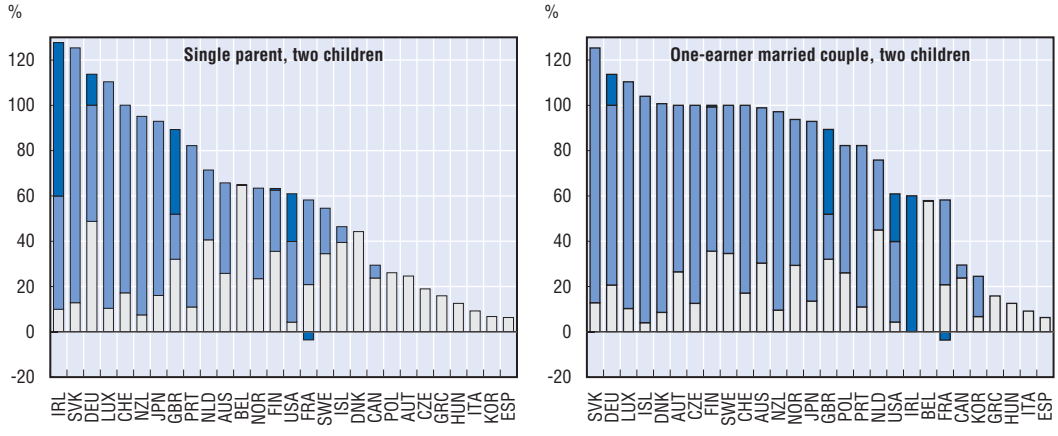
When the new job pays less than the previous one, the transition from unemployment to work becomes even less financially attractive because the decline in gross earnings – between the previous and the new jobs – is exacerbated by an increase in the METR in most countries (Figure 3.3, Panel B).[23] This is due to the fact that, in many countries, unemployment benefits – which are lost when a new job is accepted – are calculated as a percentage of the previous salary. On the other hand, METRs decrease as the post-unemployment wage rises, reinforcing work incentives.

Figure 3.3. **Financial returns to work for unemployed, inactive and low-paid individuals, 2002** *(cont.)*

Panel C. **Decomposition of the METR when moving from long-term unemployment or inactivity to full-time work at wage level = 67 % of APW**[b]



Panel D. **Decomposition of the METR for a 10% wage increase (from 50 to 55% of APW)**[c]



FB: Family benefits
HB: Housing benefits
IT: Income tax
IW: In-work benefits
METR: Marginal effective tax rate
SA: Social assistance
SC: Social security contribution

a) These marginal effective tax rates (METRs) indicate how much of the wages earned following a move to work from unemployment is taken away in the form of taxes and lower welfare benefits. For example, a METR of 100 indicates that moving from unemployment to work leads to no additional net income.

b) These METRs indicate how much of the wages earned following a move to work from long-term unemployment or inactivity is taken away in the form of taxes and lower welfare benefits. For example, a METR of 100 indicates that moving from long-term unemployment or inactivity to work leads to no additional net income.

c) These METRs indicate how much of the specified rise in earnings is taken away in the form of higher tax and lower welfare benefits. For example, a METR of 100 indicates that a 10% wage increase leads to no additional net income.

Source: OECD (2005), *OECD Employment Outlook*, Chapter 3, Paris.

Statlink: *http://dx.doi.org/10.1787/250135220703*

Figure 3.3, Panel C provides an idea of the financial incentives facing a worker who has been unemployed for a long period of time and no longer qualifies for any unemployment benefits, but typically receives social assistance benefits. In some countries, out-of-work income falls as unemployment persists, causing financial incentives to work to rise. However, in many countries the various forms of social assistance benefits that can be

received mean that the METR associated with a return to work remains very high, especially if there are no other working adults in the family. Such cases are sometimes termed "inactivity traps" and these METRs apply quite generally to persons receiving social assistance, rather than being specific to job losers who have exhausted their entitlement to basic unemployment benefits.[24]

There is still relatively little research documenting the impact on labour supply of the detailed incentive structure which is reflected in these METRs. However, a recent OECD analysis suggests that reducing the METRs faced by out-of-work individuals increases the likelihood of their transition to work (OECD, 2005a, Chapter 3). In line with other studies of labour supply response to these types of fiscal incentives, the analysis finds moderately sized labour market effects. For example, a 20% reduction of the METRs (which is what some of the most ambitious reforms have tried to achieve via in-work benefits) implies a rise in the one-year transition probability for moving from unemployment to employment from 45% to 49%. Large effects are found for the unemployed with a working partner, whose re-employment probability is estimated to increase by 7 percentage points, from 51% to nearly 58%. The evidence on transitions from inactivity to work is more mixed. Large effects are found only for single women: for this group, the probability to move from inactivity to work would increase by almost 13%.

The interaction of taxes and benefits can also discourage low-income individuals, who have a job, from working longer hours (including moving from part-time to full-time employment) or moving to jobs offering higher wages since doing so often entails little additional net income. Indeed, as Figure 3.3, Panel D shows, METRs can be very high for low-paid workers receiving social benefits as a top-up to their earnings. This is particularly the case for one-earner families with two children in Germany, Ireland (single parents), Iceland (one-earner couples), Luxembourg and the Slovak Republic, where these METRs exceed 100%. Although evidence suggests that high METRs probably matter more for the participation decision (*i.e.* whether to work or not), than for the choice of weekly hours (conditional on working) there is some evidence that transitions from part-time to full-time status are less frequent where the METRs associated with additional hours are higher.[25]

It should be kept in mind that financial incentives as measured by METRs only partly explain labour supply choices. In particular, unemployment benefit system eligibility rules requiring work availability are not accounted for in calculating METRs. As discussed in Sub-section 2.1, job-search requirements that are enforced appear to reduce the extent to which high METRs created by unemployment benefits reduce effective labour supply and the same appears to be true for certain other types of social benefits (see Sub-section 2.4). Similarly, these METRs only take account of the immediate financial returns to working, ignoring dynamic considerations, such as the possibility that low-paying entry jobs might be seen as stepping stones into the labour market, which open the way to subsequent movements up the jobs ladder. Nonetheless, these findings suggest that measures that raise financial incentives to work are an important part of an overall strategy to increase labour supply.

In-work benefits as a policy to make work pay

In-work benefit programmes are one of the tools that OECD governments are increasingly using as a means of raising the financial returns from work. The main idea is that offering a "top-up" to the earnings of low-paid workers makes employment more desirable compared to non-employment. Since this top-up is eventually "clawed-back" as

earnings rise, in-work benefits are, inherently, a double-edged sword so far as their impact on labour supply incentives: they encourage entry into employment and higher earnings within the lowest range of earnings, but they act as a tax on further increases of earnings in the phase-out range.[26]

In-work benefits can significantly reduce the METRs associated with moving from unemployment or inactivity to employment (see the IW components in Panels A to C of Figure 3.3). For example, in-work benefits substantially reduce the unemployment trap for sole parents in Ireland, Japan, Korea, the Netherlands, New Zealand, the United Kingdom, and the United States. At the same time, the phase-out range for these employment-conditioned benefits may increase low-pay/low-hours traps (see the IW component in Panel D). Indeed, the METR associated with increasing work hours is significantly increased in several countries, notably Ireland, because higher earnings trigger a substantial reduction of the in-work benefit.

A number of empirical studies have concluded that a well-designed system of in-work benefits can have a positive overall impact on labour supply and employment, since the resulting increase in participation is quantitatively much larger than the reduction in hours worked among some persons already employed (see studies cited in OECD, 2005a, Chapter 3). Where in-work poverty is of concern, in-work benefits have also proved to be an effective tool for raising family incomes of low-pay workers (OECD, 2003a, Chapter 3; Greenstein, 2005), albeit at a substantial budgetary cost. Whether introducing in-work benefits would better reconcile social protection and high employment in any particular country – and, if so, what form that benefit scheme should take – is a complicated question, with the answer depending on a number of factors, including the government's priorities between getting more people into work and limiting income inequality, how labour supply responds to taxes and benefits, and the distribution of wages (*e.g.* how dense the distribution is in its lower range). To examine these issues, Immervoll *et al.* (2006) use microsimulation analysis for the EU15 countries and conclude that a marginal shift toward in-work benefits appears to be welfare enhancing in all of the countries considered.

What properties characterise a well-designed system of in-work benefits? There is no fixed recipe. Indeed, these programmes vary widely in terms of characteristics such as their generosity, the income level beyond which benefits are withdrawn and eligibility criteria related to *e.g.* family structure and prior work history (see OECD, 2005a, Chapter 3). Nonetheless, recent experience provides some guidelines for effective design:

- A first important consideration is that only in-work benefit programmes that are sufficiently generous are likely to translate into significant increases in employment rates. As can be seen in Panels A and C of Figure 3.3, the impact of in-work benefits on METRs is modest in many of the countries where such schemes were in use in 2002 (*cf.* the IW component), with the Irish and British benefit schemes having the strongest impact for the population groups that qualify for these benefits. On the other hand, generosity may need to be accompanied by narrow targeting in order to channel help to the neediest families and keep programme costs at a reasonable level.
- If the primary goal is to increase employment, in-work benefits should be designed to reduce the waste of budget resources arising from the fact that some beneficiaries would have found a job (or increased work effort), even in the absence of the scheme.[27] Well-designed targeting, and conditions on the minimum number of hours worked to become eligible, are effective responses to this concern.

- The level of in-work benefits and phasing-out rates (*i.e.* the speed at which benefits are withdrawn as incomes rise) should be set depending on what governments want to achieve. If the main objective is that of getting individuals into work, a moderate benefit withdrawn at relatively low rates may be most appropriate. However, this implies that benefits will continue to be paid at relatively high levels of income, creating some disincentive effects higher up in the earnings distribution. As a result, a government which is more concerned about the incentives for career advancement or longer working hours of those who are already in work would chose higher benefit levels and a faster phasing-out rate. Putting a time limit on in-work benefits provides an incentive for recipients to become fully self-sufficient.[28]
- The availability of in-work benefits should be made widely known to the target group and administrative procedures to receive in-work benefits should not be excessively bureaucratic. The system should also be responsive to changes in family needs. In this respect, integration with the tax system and payment through the wage package could be an improvement for recipients, and a cost-saving solution for governments.
- In-work benefits should not be seen in isolation but rather as one component of a comprehensive strategy to help the transition from welfare to work. The provision of childcare subsidies would be an appropriate accompanying policy, particularly since single parents and spouses with children are especially sensitive to welfare-to-work policies. In addition, under certain conditions, a minimum wage, set at an appropriate level, can be one of the options to prevent employers from pocketing the earnings subsidy introduced by in-work benefits.[29] And, as is discussed in the next two sections, effective active labour market programmes may play a constructive role in helping people find appropriate jobs.

Lessons

Countries should review the combined impact of tax and benefit systems on labour supply incentives for low-skilled workers and consider addressing situations in which the financial incentives to work are non-existent or very low. Carefully designed in-work benefit schemes can make a significant contribution to assuring that work pays. Nonetheless, these types of fiscal measures can only be one component of a broader strategy to reconcile adequate social protection with high employment rates. Adjustments to tax and benefit schedules that lower METRs in one earnings range (or for one family type) must raise METRs of other groups if a minimum income guarantee and budget neutrality are to be maintained (the so-called "iron law" of welfare reform).

2.3. Active labour market programmes and strategies for activating the unemployed

The original Jobs Strategy recommended that increased emphasis be placed on active labour market programmes (ALMPs) and that greater efforts be made to improve the effectiveness of active measures. However, since 1994, the OECD has de-emphasised resource shifts from passive to active measures (*i.e.* from paying unemployment benefits to providing direct assistance for finding a job or upgrading vocational skills) as an indicator of reform, while increasing the emphasis it places on improving ALMP effectiveness at any given level of spending.[30] Increased priority has also been placed on the effective co-ordination of ALMPs with the administration of unemployment benefits (see Sub-section 2.1) and make work pay policies (Sub-section 2.2), so as to implement a coherent "activation" strategy for recipients of unemployment benefits and other working-age persons who are not employed (Sub-section 2.4).

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Policy developments since 1994

Consistent with the evolution in the OECD's position, reforms over the past decade have been geared more towards increasing the effectiveness of active programmes rather than raising ALMP spending *per se*. Reforms have concentrated on a number of interconnected areas (Table 3.4):

- *Enhanced job placement efforts*. A number of countries (*e.g.* Australia, Canada, Germany, the Netherlands, New Zealand, and Norway) introduced profiling and/or individual action plans aimed at providing the appropriate mix of counselling, training and other active measures to help bring each jobseeker quickly back into unsubsidised work. Customised assistance with intensive support for the long-term unemployed and other vulnerable groups was another widespread measure.
- *Greater emphasis on testing and monitoring work availability*. Many member countries introduced stricter or more strictly enforced job-search requirements (see Sub-section 2.1), often in combination with more frequent and intense contacts with the public employment service (PES). Other countries (New Zealand, Norway, Poland and Sweden) have made an increased use of ALMPs as a work availability test.
- *Early intervention in the unemployment spell and compulsory participation in programmes*. A considerable number of member countries have recently employed ALMP measures to "activate" jobseekers early in the unemployment spell to prevent a loss of skills or damage to their motivation as a result of long-term unemployment. Compulsory activation, introduced by a few member countries (Australia, Denmark, Sweden, Switzerland and the United Kingdom), goes even further by making benefit receipt dependent on participation in an activation measure after some time has elapsed.
- *More efficient administration of PES activities*. Increased recognition of the importance of tying ALMPs closely to the implementation of work availability requirements for the receipt of unemployment benefits, has led a number of OECD countries to improve the collaboration between agencies administering different benefits and placement services, while others have integrated them completely.
- *Quasi-market for employment services*. In an effort to seize the benefits of the market mechanism and thus improve the efficiency of placement, Australia made its employment placement services contestable, while outsourcing most of its labour market programmes. More recently, some other member countries, especially the Netherlands, have also engaged in contracting out placement services and/or other active labour market programmes.

ALMP spending as a percentage of GDP fell modestly during the second half of the 1990s (see Figure 3.4 and – for more detailed information – Table W.3.2 in OECD, 2006a). However, passive spending fell even more rapidly, so that active spending rose from 34% to 40% of total spending on labour market programmes. ALMP spending per unemployed person also increased as a percentage of GDP per capita, rising from 25% in 1994 to 33% in 2002. In terms of the allocation of spending across the main types of active programmes, there has been some shift away from subsidised employment and towards more spending on the PES (*e.g.* job-search assistance and tighter monitoring of work availability) and programmes for persons with disabilities (Figure 3.4). Decomposing the spending on subsidised employment into its components reveals that the 3 percentage points decline in total spending between 1993 and 2002 resulted from a substantially larger cut in spending on direct job creation (public or non-profit), partially offset by an increase in subsidies to

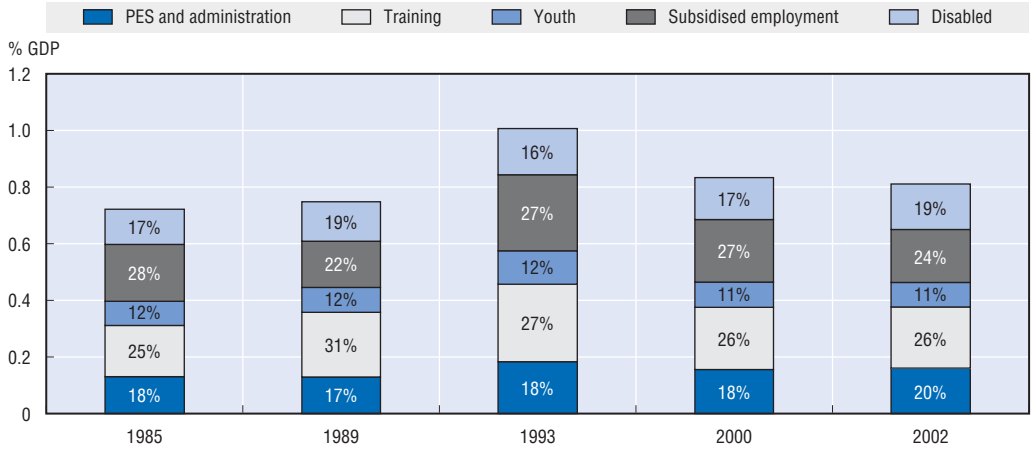
Table 3.4. **Active labour market programmes (ALMPs): policy reforms over the 1994-2004 period**[a]

		Overall increase of activation through		Public employment service				Increased use of ALMPs as		
	More evaluations	Increased job-search monitoring	Individual action plans/profiling	Closer link with benefit administration through		More competition through		Work availability test	Early activation	
				Increased cooperation	Integration	Contestability of placement	Contracting out of ALMPs		In general	Compulsory
Australia	+	+	+	+		+	+			+
Austria		+	+							
Belgium	+		+	+					+	
Canada	+		+							
Czech Republic	+	+								
Denmark	+	+	+	+			+			+
Finland	+	+	+	+					+	
France	+		+	+					+	
Germany	+	+	+		+	+			+	
Greece	+		+			+			+	
Hungary	+					+				
Iceland		+	+		+					
Ireland	+		+		X[b]				+	
Italy						+				
Japan					+					
Korea					+					
Luxembourg			X[c]						+	
Mexico										
Netherlands	+	+	+	+		+	+		+	
New Zealand	+		+		+		X[d]	+		
Norway	+		+			+	+			
Poland	+							+		
Portugal	+					+			+	
Slovak Republic										
Spain								+		
Sweden	+	+	X[c]							+
Switzerland	+		+							+
Turkey										
United Kingdom	+	+	+		+					+
United States	+				+					

a) +: Reforms following the OECD Jobs Strategy.
b) Integration of local and national employment services.
c) For vulnerable groups only.
d) Some services for Maori and Pacific Island Jobseekers.
Source: OECD Economic Surveys.

Statlink: *http://dx.doi.org/10.1787/116616056524*

Figure 3.4. **Composition of active spending in the OECD area, 1985-2002**



PES: Public employment service.

Note: Unweighted averages for: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Japan, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.

Source: OECD database on Labour Market Programmes.

Statlink: *http://dx.doi.org/10.1787/250677458802*

regular employment in the private sector.[31] Substantial cross-country differences persist in both the overall level of ALMP spending – expenditures tending to be substantially lower than the OECD average in non-European OECD countries (and also in Southern Europe), and substantially higher in Nordic countries – and its composition.

New evidence concerning the effectiveness of ALMPs

Macro-econometric studies. Most macro-econometric studies that have estimated the impact of ALMP spending on aggregate unemployment have found that there is a significant favourable effect, *i.e.* these types of programmes speed re-employment for unemployment benefit recipients and other jobseekers (Table 3.5). These estimates are subject to the important caveat that they may reflect simultaneity bias, rather than a causal effect of ALMPs in lowering unemployment.[32] However, Bassanini and Duval (2006) present an attempt to correct for simultaneity bias, based on state-of-the-art econometric techniques (see Chapter 7). A robust finding is that higher spending on labour market training is associated with lower unemployment, whereas no such relationship emerges for other types of ALMP spending, consistent with the findings of Boone and van Ours (2004).

A number of macro-econometric studies have found evidence for interaction effects between ALMP spending and either other policies or shocks (Table 3.5). In particular, Bassanini and Duval (2006) find that the impact of higher unemployment benefits in raising unemployment is significantly ameliorated by higher ALMP spending, consistent with the argument that the effective integration of ALMPs with the administration of unemployment benefits can offset some of the disincentive effects of these benefits (see Sub-sections 2.1 in this chapter and 1.2 of Chapter 7). Another interesting finding is that the aggregate unemployment rate rises less strongly in response to an adverse macroeconomic shock when ALMP spending is higher.

Table 3.5. **Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: active labour market programmes (ALMPs)**

Study	Outcome	Comments
Bassanini and Duval (2006)	--	Spending on labour-market training significantly lowers unemployment; high ALMP spending also reduces the increase in unemployment associated with generous unemployment benefits and negative shocks.
Baker, Glyn, Howell and Schmitt (2005)	No	
Bertola, Blau and Kahn (2002a, 2002b)	n.a.	ALMP only entered in interaction terms which generally are not significant.
Fitoussi, Jestaz, Phelps, Zoega (2002)	-	No longer significant with Sweden excluded from sample.
Blanchard and Wolfers (2000)	n.a.	ALMP only entered in interaction terms; higher ALMP spending reduces responsiveness of unemployment to negative shocks.
Elmeskov, Martin and Scarpetta (1998)	-	Also evidence that unemployment benefits increase unemployment most strongly when ALMP spending is low.
Nickell (1997, 1998)	--	For long-term unemployed only in Nickell (1997).
Scarpetta (1996)	-	Small impact that becomes larger and more significant with Sweden excluded.
Boone and van Ours (2004)	--	ALMP spending on labour-market training lowers unemployment substantially, smaller negative impact for PES spending and none for subsidised jobs; higher spending on training reduces the impact of unemployment benefits in raising unemployment.

No: No significant direct impact on unemployment.
n.a.: Not available.
+/-: Significant positive/negative impact on unemployment in most but not all cases.
++/--: Significant positive/negative impact on unemployment in all cases.

Statlink: *http://dx.doi.org/10.1787/614134240010*

Evaluation studies using micro-data. A rapidly increasing number of microeconomic evaluation studies of different ALMPs has greatly expanded the evidence about what works and for whom.[33] One of the clearest lessons is that the returns to different programmes vary widely and that apparently similar programmes can yield very different outcomes, implying that the details of programme design are key. It is clear that well-designed programmes can have a positive impact on employment outcomes for participants, which are large enough to justify programme costs, but that many existing programmes have failed to do so. Some general tendencies have been identified in terms of the relative returns to different types of programmes. For example, relatively low-cost job-search assistance often rates well, whereas public job creation are typically disappointing in terms of bringing the unemployed back into unsubsidised work (Kluve, 2006; Martin and Grubb, 2001).[34] When proper account is made for the long-run impact of ALMPs on job attachment, intensive employment services, individual case management and mixed strategies with selective referrals to long-term training programmes are found to have the largest impact (OECD, 2005a, Chapter 4).[35]

New evidence concerning ALMPs as a component of a comprehensive activation strategy

What are the components of an activation strategy? A promising development in recent labour market policy has been the emergence of *activation strategies* that co-ordinate benefit administration for unemployment benefits (see Sub-section 2.1) and ALMPs,[36] so as to provide better re-employment services while at the same time enforcing more effectively job-search obligations for the unemployed. The essence of an activation strategy is to encourage jobseekers to become more active in their efforts to find work by providing

job-search support, and requiring regular contact with employment services as well as compulsory participation in programmes after a certain period of unemployment (OECD, 2005a, Chapter 4). Among the measures that appear to contribute to meeting this goal are:

- For people with a solid record of recent employment, employment services in the first months of unemployment should focus on offering services such as job information and matching, job-search training, individualised counselling and vocational guidance and vocational training, largely on a voluntary basis.
- But for longer periods of unemployment, and especially in countries which provide indefinite-duration benefits,[37] these services increasingly need to be made *obligatory* to prevent a drift into passive benefit dependency, while also providing more re-employment support. However, participation requirements should be reasonable so that they promote participation, while avoiding that needy individuals who do not find work drop off benefits.
- These services should be open on a voluntary basis to jobseeker groups that do not qualify for unemployment benefits and are not subject to any participation requirements.

For activation strategies to be successful, it is essential to monitor and manage the performance of the employment services. General principles for the governance of employment services, both private and public, include (OECD, 2005a, Chapter 5):

- Labour market programmes or changes to PES procedures should be introduced when their benefits exceed their costs for society as a whole. A particular feature of labour market programmes is that their society-wide benefits are quite well shown by their impact on public sector finances: lower unemployment and higher earnings after return to work improve the welfare of the individuals concerned while also saving on unemployment benefit budgets and increasing tax receipts. Effective performance management driven by this criterion will thus improve both social welfare and government financial balances.
- Measures of outcomes and impacts must be hard to "game".[38] When employment services are subcontracted, government agencies should assess outcomes from employment services in terms of both placement rates and subsequent stability in employment, based on official data sources rather than data reported by the service providers themselves.
- "Creaming" (*i.e.* selection by service providers of which clients to serve) should be prevented. Government should measure employment outcomes across all persons originally referred to each service provider, so that service providers cannot improve their reported success rate by diverting less-easily-employable clients to other service providers or other welfare benefits.
- Employment services should have an incentive to report evidence that clients are not available for work or refuse to participate in a labour market programme, but government should continue to administer benefits so as to protect valid entitlements.
- In countries where there are no or only limited unemployment benefits and informal sector employment is widespread, employment services should bring clients into formal employment (see Section 3 of Chapter 4). Moreover, performance management arrangements that reward employment services for increasing individual earnings, as they appear in tax or social security records, could be applied.

What is the impact of a comprehensive activation strategy? Activation programmes can have a large impact on employment and unemployment outcomes, and benefit receipt, particularly where benefit entitlements are of long or indefinite duration. Requiring more and more intensive participation in employment services serves this goal in two ways:

- Activation requirements increase levels of participation in employment services, thus making participants' job search more effective and/or enhancing their skills, provided these measures are well designed and implemented.
- Given the prospect of having to participate in activation programmes or otherwise face benefit sanctions, some people on benefits enter work or drop their claim earlier than they would otherwise have done, and some potential claimants do not initiate a benefit claim – so-called "motivation effects".

Recent experience in a number of OECD countries suggests that the impact can be large, but that activation strategies need to be continuously monitored for effectiveness, since returns have been quite variable (OECD, 2005a, Chapter 4):

- Welfare caseloads in the United States and unemployment benefit rates in Denmark, Ireland, the Netherlands and the United Kingdom have fallen by more than half from their peaks in the recessions of the early 1980s or early 1990s. Australia and New Zealand have recently experienced 25% to 30% falls over a shorter period. These improvements seem to be closely related to the adoption of activation strategies in these countries. The benefits of such strategies may go beyond reducing the duration of job search. Programmes may help improve the match between the skills of jobseekers and available jobs, thus enhancing earnings prospects and job stability.
- But limits to activation strategies also need to be recognised. In Nordic countries, which have a high level of social protection and have spent heavily on ALMPs for many years, there are some signs of declining returns. Denmark's activation measures in the 1990s, although they reduced unemployment, were expensive relative to those used in some other countries. Testing and evaluation is needed to devise activation programmes that are effective, affordable and reasonable in terms of requirements on participants.

Lessons

Even though evaluation results for a wide range of active labour market programmes have highlighted a mixed record, enough successful programmes have been documented to confirm that an appropriate mix of properly designed ALMPs can reduce unemployment by improving the efficiency of the job-matching process and by enhancing the work experience and skills of those who take part in them. These benefits can be maximised by integrating ALMPs into a comprehensive activation strategy for unemployed persons that is subject to rigorous performance management driven by continuous monitoring of the long-run impacts of the different measures used on employment outcomes. A growing number of OECD countries have moved a considerable way towards implementing such a system. However, initiatives in this area need to be coupled with systematic evaluation of which programmes are working well and which are not and need to be improved or ended.

2.4. Policy issues related to welfare benefits that typically have not been conditional on availability for work

The 1994 Jobs Strategy included among its detailed policy recommendations that people receiving indefinite-duration welfare benefits who are able to work should be subjected to work availability or similar "restrictive conditions". No further guidance was provided concerning the best methods for activating this group, whereas the detailed recommendations devoted considerable attention to how unemployment benefit recipients could best be moved into jobs. One of the more striking developments in employment and social policy during the past decade has been the increased attention that is being paid to applying activation principles, first developed for the unemployed, to recipients of welfare benefits that typically have not been conditional on availability for work. For convenience, these types of benefits will be referred to below as *non-employment benefits*.[39]

Long-term rise in non-employment benefit dependency has not reversed despite recent gains in employment

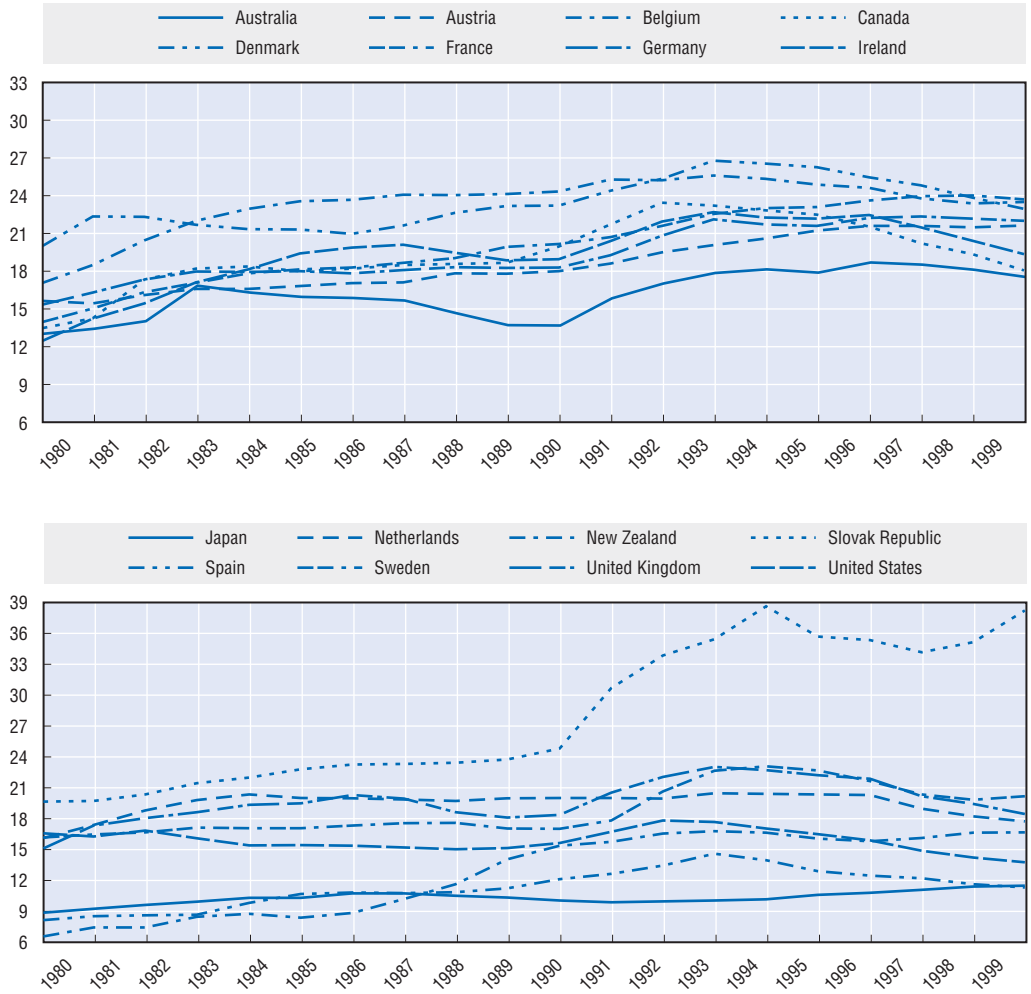
From 1980 to the early 1990s, most OECD countries for which data are available experienced a trend-rise in the proportion of individuals of working age receiving a social-protection benefit, whether an unemployment or a non-employment benefit (Figure 3.5).[40] Between 1994 and 1999, overall benefit recipiency declined somewhat in the majority of these countries. This reflects the progress made in reducing recipiency rates for unemployment benefits, as unemployment rates fell in most of these countries and governments became more active at enforcing work availability requirements or offered more effective re-employment support to this group (Sub-sections 2.1 and 2.3 above). By contrast, rates of dependency on non-employment benefits have stabilised in some countries since the mid-1990s, but have continue to grow in others (see Carcillo and Grubb, 2006). As a consequence, the share of total benefit dependency attributable to unemployment benefits has declined in most of these countries, often quite sharply, and even the countries that achieved large falls in unemployment benefit recipiency have often experienced continuing growth in recipiency for at least one major non-employment benefit which has therefore received closer attention.

Benefit recipients represent a large share of the potential workforce that will have to be mobilised if employment rates are to rise as part of an overall response to population ageing (OECD, 2003a, Chapter 4). Depending on the country, between 11% and 38% of working-age individuals received a social protection benefit in 1999 (Table 3.6). Importantly, benefit recipients are nearly twice as numerous as other persons of working-age who are neither working nor in full-time education: on average over the 16 countries for which data are available, 20% of the working-age population are benefit recipients and 12% fall into the residual "other" category. In Denmark and the Slovak Republic, essentially all of the potential workers who might be mobilised are benefit recipients.

These patterns suggest that there could be a high pay-off to extending activation measures, currently available mainly to the unemployed, to persons receiving these non-employment benefits. However, such a policy orientation would only make sense if it can be verified that: *i)* it is appropriate to encourage a significant share of non-employment benefit recipients to work; and *ii)* the types of activation measures that have proven to be effective for unemployment benefit recipients, perhaps suitably modified, would also work for this other group. The rest of this section argues that activation is appropriate and feasible for many recipients of non-employment benefits, and discusses how this can best

Figure 3.5. **Trends in benefit recipiency,[a] 1980-99**

Percentage of the working-age population



a) Percentage of the working-age population receiving income-replacement benefits (full-time equivalent persons).

Source: OECD (2003), *OECD Employment Outlook*, Chapter 4, Paris.

Statlink: *http://dx.doi.org/10.1787/144014521308*

be done.[41] The discussion focuses mainly on sickness and disability benefits, social assistance and lone parent benefits. Early retirement and pension benefits are discussed in Chapter 4.

The case for reforming the management of non-employment benefits

Not all people who receive non-employment benefits can or should work. For example, the payment of a full income-replacement benefit without work-related requirements is appropriate in some situations of incapacity or care responsibilities.[42] However, the exact coverage of fully-inactive benefits varies considerably. Several factors motivate a redefinition of entitlements:

- *Changes in social expectations.* Influenced by broad social trends, the idea that married women or lone parents should not work has gradually lost support. More generally, a large proportion of "inactive" persons of working age would like to work, should the right conditions exist (OECD, 2003a).

Table 3.6. **Employment rates and benefit dependency rates in the working-age population**

Percentage of the working-age population, 1999

	Employed or participating in education	Benefit dependency rates	Other
Australia	63.5	17.5	18.9
Austria	72.4	21.5	6.0
Belgium	63.4	23.6	13.0
Canada	71.1	18.0	10.8
Denmark	76.6	23.1	0.3
France	68.2	24.2	7.6
Germany	66.3	22.4	11.3
Ireland	67.4	19.3	13.3
Japan	69.5	11.4	19.0
Netherlands	63.1	17.8	19.2
New Zealand	64.4	16.8	18.8
Slovak Republic[a]	64.7	38.2	–2.8
Spain	64.4	11.2	24.4
Sweden	74.3	20.0	5.7
United Kingdom	66.6	18.9	14.5
United States	78.3	13.7	8.0
OECD[b]	**68.4**	**19.9**	**11.8**

a) Negative value for "other" in the Slovak Republic represents benefit dependency double-counted with statuses, such as employment or study.
b) Unweighted averages for the countries shown above.
Source: OECD (2003), *OECD Employment Outlook*, Table 4.1 and Chart 4.1, Paris.
Statlink: *http://dx.doi.org/10.1787/855086240846*

- *Problems in administrative implementation.* Claimants may have an incentive to claim incapacity benefits, rather than unemployment benefits which involve additional requirements. If administrators such as family doctors who issue sickness certificates lack a direct incentive to refuse doubtful requests, a drift towards leniency in benefit administration and social acceptance of incapacity benefit claims is likely. Addressing this problem requires a restructuring of administrative arrangements, but a redefinition of entitlements may play a role in major reforms.
- *Overuse of "all-or-nothing" criteria.* Incapacity and care responsibilities are often partial rather than full barriers to work. Although a strict compartmentalisation of benefit systems[43] has some advantages, it fails to "activate" individuals who have considerable remaining work capacity but qualify for non-employment benefits. In English-speaking OECD countries, which many years ago created a distinct category of benefits for lone parents, the expectation arose that lone parent beneficiaries need not work or prepare for work.

Transfer to unemployment benefits

A number of countries now require social-risk groups that were formerly entitled to non-employment benefits to be available for full-time work and have extended job-search support services to these groups:

- Publicly-subsidised *early-retirement benefits* are now rarely defended on the argument that they can reduce unemployment in general. They are increasingly seen as second-best solutions which are maintained because other policies to absorb older-worker unemployment are ineffective or because they are acquired rights which are politically hard to remove. In most countries, a process of phasing out these benefits has begun (see Sub-section 1.2 of Chapter 4).

- Availability requirements were extended to the majority of *lone parents* through new legislation in 1996 in Canada, the Netherlands and the United States. This occurred partly through an explicit lowering of age-of-youngest-child conditions for exemption from requirements, but primarily through decentralisation that gave local authorities freedom to determine requirements on a case-by-case basis (the Netherlands, in a second reform, gave full freedom in 2004).
- A new requirement for *partners*, in couple households which are claiming assistance benefits, to be available for work (or otherwise the couple forfeits the partner additions to the benefit rate) was introduced by Australia in 1995, by Denmark in 1997 and by the United Kingdom in 2001.

Tighter gatekeeping of entry to disability benefits

The Netherlands has undertaken several administrative drives to re-examine existing disability benefit claims.[44] And a number of countries in principle grant disability benefits on a temporary basis, with regular re-examination of cases every few years. However rates of return to employment for individuals who have been on disability benefits for several years remain low and policies for reducing initial inflows to disability benefits are likely to have a greater impact on caseloads. In particular, long-term sickness leave is the gateway to a disability benefit in many countries. Some countries have given firms incentives to control sickness absence and entries to disability benefits by making them financially responsible for paying a share of benefits, either directly or via experience-rating of insurance contributions (as was implemented with success in the Netherlands in 1998). In addition, other possible solutions that could keep people in work should be examined in a step-by-step process that assesses social, personal, and health conditions, before entry to a disability scheme is allowed (as in Luxembourg). Finally, recognition that work capacity is partially reduced should, in appropriate cases, qualify the worker for a full-time "flex-job" (which provides the employer with a permanent subsidy) rather than an incapacity benefit on a passive basis (as in Denmark; see Communal Project Group, 2005).

Partial availability-for-work requirements

People with partial or temporary limitations on work capacity can be granted a benefit status with partial work-availability requirements:

- A partial disability benefit may be granted, *e.g.* in the Netherlands beneficiaries with partial disability benefits need to concurrently claim partial unemployment benefits (requiring availability for part-time work) in order to obtain a full replacement income.
- An unemployment benefit may be paid with an adjusted definition of "suitable work". In the United Kingdom, Jobseekers' Allowance beneficiaries with a disability (in appropriate cases) and people with child-care responsibilities may restrict their availability to part-time work. In Australia, from 2006, partly-disabled people and lone parents who are claiming Newstart Allowance will be transferred to Newstart Allowance with a requirement to be available (in most cases) only for part-time work. They will be subject to Mutual Obligation requirements but with lower hours of required participation than for mainstream unemployed groups.
- In the United Kingdom, people on non-employment benefits must attend "work-focused interviews" (once every 12 months and more often for new claims for lone parents; every 36 months for Incapacity Benefit recipients with potential work capacity). The take-up of

job offers and participation in any further measures proposed (such as the New Deal for Lone Parents and New Deal for Disabled People) remain voluntary. Australia and New Zealand use similar work-focussed interviews.

- Incapacity benefits may be made conditional on participation in rehabilitation measures. Some countries have specific rehabilitation benefits paid to victims of industrial accidents who are undergoing treatment and are expected to return to work.[45] Others have attempted, although not always with great success, to make incapacity benefits in general conditional on participation in rehabilitation measures.

Information about the effectiveness of these arrangements is limited. In general, employment counselling is less effective when clients can restrict their availability to particular types of jobs. But the restriction of job-search to part-time work does not appear to create significant problems if most members of the client group are unable to work full-time. Evidence about the impact of "work-focused interviews" is mixed.[46]

Employment services for recipients with limited work capacity

The employment services that are used for groups that have only recently been required to seek work seem to be similar to those used for the long-term unemployed: job-search training, assistance and monitoring, intensive counselling and direct placement assistance, with selective or targeted use of general training. However, some specific assistance measures are needed in order to tackle barriers to employment among certain recipients of non-employment benefits:

- An ability to assure lone-parent clients that child-care is available helps to overcome objections to the principle of working, allowing counsellors to concentrate on job placement. Imposing work requirements without improving child-care possibilities can be sterile (as in New Zealand in 1997).
- The UK Pathways to Work programme, targeted on people who have claimed sickness benefits for eight weeks, offers clients participation for 6 to 13 weeks in a "condition management" programme which helps them to adapt to and manage their condition. Separate programmes are offered for three main medical conditions experienced by this client group – moderate mental health, cardio-respiratory and musculo-skeletal conditions. Similar programmes are emphasised in other countries which are striving to manage their incapacity benefits as rehabilitation benefits.

Lessons

Recent experience demonstrates that there is considerable scope to apply activation strategies to persons receiving non-employment benefits, albeit with appropriate modifications for the specific characteristics of each group. Gatekeeping measures are also needed so as to ensure that individuals with work capacity do not exit the labour market. Increasing evidence that well-designed reforms can be effective is particularly welcome in the context of population ageing, since reducing benefit dependency among the working-age population is one of the most promising strategies for limiting future increases in overall dependency ratios. This policy area deserves significantly greater emphasis in the reformulated Jobs Strategy than it received in 1994.

3. Impact of wage-setting, taxes and labour- and product-market regulations on labour demand and employment

Strong hiring in the private business sector is one of the preconditions for good labour market performance. Indeed, policies to foster active job search by the unemployed and other recipients of social protection benefits – such as those discussed in Section 2 above – are likely to be of only limited value in the absence of sufficient job vacancies. Appropriate macroeconomic policy is an essential precondition for assuring adequate labour demand (Section 1), but needs to be complemented by structural reforms supportive of job creation. This section discusses five policy areas included in the 1994 Jobs Strategy that are primarily intended to ensure strong labour demand. The first two of these aims to insure that wage-setting institutions and the taxation of labour earnings do not result in excessively high labour costs (Sub-sections 3.1 and 3.2, respectively). The final three policy areas are intended to insure that the economic regulatory system encourages high levels of employment by providing enterprises with the necessary flexibility to adapt staffing patterns and work schedules to changing production needs and workers' diverse preferences, and by also promoting vigorous product market competition (Sub-sections 3.3 to 3.5).[47]

3.1. Wage-setting institutions and policies

The 1994 Jobs Strategy recommended making wages and labour costs more flexible by: *i)* removing restrictions that prevent wages from reflecting local conditions and individual skill levels; and *ii)* reducing non-wage labour costs (OECD, 1994a). As concerns increasing the flexibility achieved by wage-setting institutions, the detailed recommendations underlying this broad policy guideline included to:

- Refocus collective bargaining at sectoral level on the provision of framework agreements which leave firms with more leeway to adjust wages to local conditions.
- Introduce opening clauses for local bargaining parties to re-negotiate sectoral agreements.
- Phase out administrative extension which was considered to rigidify wage-setting arrangements.
- Reassess the role of statutory minimum wages and either switch to better targeted redistributive instruments or minimise their adverse employment effects by introducing sub-minima differentiated by age or region and/or indexing them to prices instead of average earnings.

Policy developments since 1994

In a considerable number of OECD countries, there has been some movement towards decentralising wage bargaining, including an increased use of firm-level bargaining during the past ten years, continuing a trend that was already visible during the 1980s (Table 3.7).[48] Similarly, steps were taken to encourage greater wage differentiation by skill level and productivity in Mexico, the Netherlands and Portugal (Brandt *et al.*, 2005). Rather than being a result of government reform programmes, these changes were often prompted by the social partners themselves – as is illustrated by the decentralisation of wage bargaining in Denmark, albeit in the context of still high co-ordination – or emerged in a more *ad hoc* manner, as unions and employers adapted their bargaining practices to a changing economic environment. Governments sometimes offered encouragement to these private initiatives to decentralise bargaining. For example, in Germany, authorities

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Table 3.7. **OECD summary indicators for bargaining centralisation[a] and co-ordination[b] since 1970[c]**

	Centralisation			Co-ordination		
	1970-74	1985-89	1995-2000	1970-74	1985-89	1995-2000
Australia	4	4	2	4	4	2
Austria	3	3	3	5	4	4
Belgium	4	3	3	4	(4)	(4.5)
Canada	1	1	1	1	1	1
Czech Republic	. .	. .	1	. .	. .	1
Denmark	5	3	2	5	(4)	(4)
Finland	5	5	5	5	5	5
France	2	2	2	2	2	2
Germany	3	3	3	4	4	4
Hungary	. .	. .	1	. .	. .	1
Ireland	4	(2.5)	4	4	(2.5)	4
Italy	2	2	2	2	2	4
Japan	1	1	1	4	4	4
Korea	1	1	1	1	1	1
Netherlands	3	3	3	3	4	4
New Zealand	3	3	1	4	4	1
Norway	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)	(4.5)
Poland	. .	. .	1	. .	. .	1
Portugal	5	3	4	5	3	4
Slovak Republic	. .	. .	2	. .	. .	2
Spain	5	(3.5)	3	5	(3.5)	3
Sweden	5	3	3	4	3	3
Switzerland	3	3	2	4	4	4
United Kingdom	2	1	1	(3)	1	1
United States	1	1	1	1	1	1
OECD unweighted average	**3.1**	**2.5**	**2.2**	**3.5**	**2.9**	**2.6**
Coefficient of variation	**48**	**46**	**54**	**41**	**47**	**55**

. .: Data not available.

a) Centralisation:
- 1 = Company and plant level predominant.
- 2 = Combination of industry and company/plant level, with an important share of employees covered by company bargains.
- 3 = Industry-level predominant.
- 4 = Predominantly industrial bargaining, but also recurrent central-level agreements.
- 5 = Central-level agreements of overriding importance.

b) Co-ordination:
- 1 = Fragmented company/plant bargaining, little or no co-ordination by upper-level associations.
- 2 = Fragmented industry and company-level bargaining, with little or no pattern-setting.
- 3 = Industry-level bargaining with irregular pattern-setting and moderate co-ordination among major bargaining actors.
- 4 = *a)* informal co-ordination of industry and firm-level bargaining by (multiple) peak associations;
  - *b)* co-ordinated bargaining by peak confederations, including government-sponsored negotiations (tripartite agreements, social pacts), or government imposition of wage schedules;
  - *c)* regular pattern-setting coupled with high union concentration and/or bargaining co-ordination by large firms.
  - *d)* government wage arbitration.
- 5 = *a)* informal co-ordination of industry-level bargaining by an encompassing union confederation;
  - *b)* co-ordinated bargaining by peak confederations or government imposition of a wage schedule/freeze, with a peace obligation.

c) No scores for 1970-89 were attributed to the central and eastern European OECD countries (formerly "central command" economies). Figures in brackets are period averages in cases where at least two years differ from the period's modal value.

Source: OECD (2004), *OECD Employment Outlook*, Chapter 3, Paris.

Statlink: *http://dx.doi.org/10.1787/013412467452*

publicly urged greater use of opt-out clauses, even threatening statutory changes in that direction if greater voluntary use of opt-outs was not forthcoming (OECD, 2004a, Chapter 3). Australia is one of the rare examples where a marked shift toward greater decentralisation was largely a result of changes in legislation.[49]

In Europe, increased decentralisation has often taken the form of expanding the scope for enterprise-level bargaining to modify the employment terms contained in sectoral agreements (Brandt *et al*., 2005; and OECD, 2004a, Chapter 3). As such opt-out clauses can, in most cases, only be invoked with the agreement of *both* employer and employee organisations. The effectiveness of these measures in allowing wage setting more in line with local conditions is therefore subject to some doubt.[50] Even when opt-outs are invoked, their impact on wage differentiation may be limited by accompanying rules, such as deviations from branch agreements being allowed only for working conditions (and not wages) or only changes beneficial to workers being allowed (the "favourability" principle). Furthermore, there has been relatively little change in the extent to which employers apply the terms of contracts negotiated with unions to their non-union workforce, whether voluntarily or in response to administrative extension mechanisms. In a number of OECD countries, particularly in Europe, it continues to be the case that the large majority of workers whose terms of employment are determined by collective bargaining are not union members (OECD, 2006a, Figure W.3.2).[51]

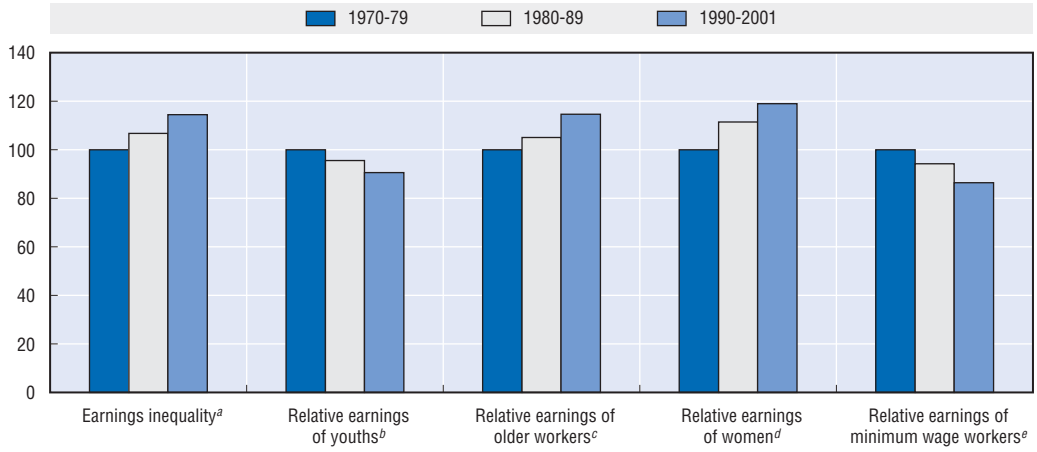
OECD governments have been reluctant to explicitly cut high statutory minimum wages, with Poland – where minimum wage rates for younger workers were lowered – being the only recent exception (Brandt *et al*., 2005). Nonetheless, the statutory minimum wage has sometimes been allowed to lag behind wage growth further up in the earnings distribution, a general tendency that was already visible during the 1980s (Figure 3.6). Since 1994, the minimum wage has fallen relative to the median wage in Australia, Belgium, Greece, Mexico, Portugal, Spain and the United States (OECD, 2006a, Figure W.3.3). By contrast, the minimum wage recently has been increased substantially, relative to the median wage, in the Czech Republic and Hungary. The phased introduction of the 35 hour week in France implied the creation of several different hourly minimum wages, whose subsequent harmonisation resulted in an increase in relation to median earnings. National minimum wages were introduced in the United Kingdom in 1999 and Ireland in 2000, at approximately 40% of the median wage. In order to alleviate possible adverse employment effects from these measures, sub-minimum rates were introduced for young workers in both countries. Since being introduced in 1999, the UK minimum wage has been moderately increased relative to median wages in several increments.[52]

New evidence

The structure of collective bargaining. The 1994 Jobs Strategy reflected an assessment that wage-setting institutions that left too little scope for the operation of market forces were one of the factors that had contributed to the deterioration of employment performance observed in many OECD countries following the first oil shock. Economic theory identifies two main channels through which collective bargaining arrangements can result in high unemployment. First, equilibrium unemployment will be higher the greater the extent to which trade union bargaining power is exercised so as to attempt to set aggregate wages at a level that is too high relative to overall productivity (Nickell *et al*., 2005). Second, unions tend to pursue a policy of compressing wage differentials for equity reasons, particularly in the bottom ranges of the wage distribution, with the

Figure 3.6. **Trends in wage dispersion since 1970**

Employment-weighted averages for selected OECD countries, 1970-79 = 100



a) 90-10 percentile ratio for full-time men, using data for Australia, Belgium, Canada, the Czech Republic, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Korea, the Netherlands, New Zealand, Poland, Portugal, Sweden, Switzerland, the United Kingdom and the United States.

b) Full-time earnings of men aged 15-24 years relative to men aged 25-54 years, using data for Australia, Canada, the Czech Republic, Finland, Germany, Hungary, Italy, Japan, Korea, the Netherlands, Norway, Sweden, the United Kingdom and the United States.

c) Full-time earnings of men aged 55-64 years relative to men aged 25-54 years, using data for Australia, Canada, the Czech Republic, Finland, Germany, Hungary, Italy, Japan, the Netherlands, Sweden, the United Kingdom and the United States.

d) Full-time earnings of women aged 25-54 years relative to men aged 25-54 years, using data for Australia, Canada, the Czech Republic, Finland, Germany, Hungary, Italy, Japan, Korea, the Netherlands, Norway, Sweden, Switzerland, the United Kingdom and the United States.

e) Ratio of minimum wages to median wages using data for Canada, France, Greece, Luxembourg, Mexico, the Netherlands, New Zealand, Spain, Turkey and the United States.

Source: OECD (2004), *OECD Employment Outlook*, Chapter 3, Paris.

Statlink: *http://dx.doi.org/10.1787/471687417002*

resulting wage compression being most pronounced when wage bargaining is highly centralised or co-ordinated. If this wage compression is strong enough, significant numbers of low-skilled workers may be excluded from employment, as may workers residing in low-productivity regions (see Section 2 of Chapter 4). The extent to which collective bargaining has these undesirable effects has continued to be an active area of research in the period since 1994 and this section assesses what has been learnt.[53]

The evolution of collective bargaining during the past several decades – in particular, the decline of union density and the decentralisation of wage bargaining in a considerable number of OECD countries – suggests that wages may have become somewhat more responsive to market forces. Consistent with this view, the decline in the wage share of total income generated in the business sector indicates a trend toward overall wage moderation in the majority of OECD countries since the end of the 1970s (OECD, 2004a, Chapter 3). However, it is unclear whether there has been a correspondingly broad trend towards reduced upward pressure on real wages relative to productivity, at an *unchanged* rate of unemployment, which theoretical arguments suggest is the most relevant measure of wage restraint. The evidence is clearer that overall wage dispersion has increased in the majority of OECD countries, as have wage differentials by age but not by gender (Figure 3.6). It continues to be the case, however, that high union density and bargaining coverage, and the centralisation and co-ordination of wage bargaining tend to go hand-in-hand with lower wage inequality.

Table 3.8 reports multivariate evidence from 17 recent studies using cross-country panel data to estimate the impact of union bargaining power – as measured by union density or bargaining coverage – on unemployment rates and other measures of labour market performance. Only three of them confirmed a robust association between union density or bargaining coverage and higher overall unemployment, while several other of these studies report evidence that high union density increases unemployment of specific groups (*e.g.* older workers, women and long-term unemployed).[54] Bassanini and Duval (2006) is among the majority of the studies not finding a significant impact of union density on overall labour market performance.[55]

Table 3.8. **Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: union density and bargaining coverage**

Study	Outcome	Comments
Bassanini and Duval (2006)	No	Union density.
Baker, Glyn, Howell and Schmitt (2005)	No or +	No impact of union density but union coverage is found to increase unemployment; also positive interaction of union density with co-ordination.
Di Tella and MacCulloch (2005)	No	But always significant negative impact on employment and participation.
Nickell, Nunziata and Ochel (2005)	+-	Union density increases unemployment and reinforces the beneficial impact of wage co-ordination on unemployment.
International Monetary Fund (2003)	++	Union density.
Nunziata (2003)	-	Union coverage.
Bertola, Blau and Kahn (2002a)	+-	Union density; interaction with shocks in contrasting directions.
Bertola, Blau and Kahn (2002b)	+-	Union density reduces relative unemployment of youth but increases relative unemployment of older workers and women; opposite results for employment.
Fitoussi, Jestaz, Phelps, Zoega (2002)	No	Union density and coverage.
Jimeno and Rodriguez-Palanzuela (2002)	No or +	No impact of union coverage; union density is found to increase aggregate unemployment but not the unemployment of prime-age men.
Belot and van Ours (2001)	+-	Union density found to increase unemployment while the opposite for union coverage.
Morgan and Mourougane (2001)	++	Wage positively related to union density.
Blanchard and Wolfers (2000)	+	Not always significant evidence that union density increases the impact of adverse shocks.
Daveri and Tabellini (2000)	No	But always significant negative impact on employment and participation.
Elmeskov, Martin and Scarpetta (1998)	No	Union density.
Nickell (1997, 1998)	+	Union density and coverage; also negative impact of coverage on employment rate in Nickell (1997).
Scarpetta (1996)	++	Union density; also positive – but not always significant – impact on long-term unemployment.

No: No significant impact on unemployment.
+/-: Significant positive/negative impact on unemployment in most but not all cases.
++/--: Significant positive/negative impact on unemployment in all cases.

Statlink: *http://dx.doi.org/10.1787/247504235477*

Researchers have emphasised that the impact of union power on employment performance is contingent on the extent to which bargaining occurs at the enterprise, sectoral and national levels. Decentralised wage bargaining at the firm level has often been regarded as limiting excessive wage claims since this would lead to a loss of market shares to competitors with detrimental effects on employment. This reasoning underlies the 1994 Jobs Strategy recommendations to decentralise wage bargaining and phase out extension mechanisms. On the other hand, very centralised or co-ordinated bargaining systems may also support high employment, because bargaining parties better internalise the detrimental effects (*e.g.* on employment) that excessive wage pressure can have at the macroeconomic level (Bruno and

Sachs, 1985; Soskice, 1990).[56] These considerations suggest that the relationship between unemployment and the degree of "corporatism" (*i.e.* centralisation and/or co-ordination) may not be monotonic but rather "hump-shaped": intermediate systems, based on branch-level bargaining without higher-level co-ordination, yielding the worst labour market outcomes, as they benefit neither from the internalisation of negative externalities associated with highly centralised/co-ordinated systems nor from the market discipline that prevails under decentralised wage bargaining (Calmfors and Driffill, 1988). Intermediate-level bargaining may have particularly detrimental effects in the presence of legal extensions of sectoral collective agreements which reduce the scope for competition to moderate wage demands and outcomes.

A majority of the cross-country regression studies summarised in Table 3.9 have concluded that a high degree of corporatism (*i.e.* high centralisation and/or co-ordination of wage bargaining) is associated with lower unemployment. This includes the analysis undertaken in Bassanini and Duval (2006), which reports evidence that a high co-ordination wage bargaining system lowers equilibrium unemployment and that this effect is robust and highly statistically significant. For an average OECD country, the baseline estimates indicate that unemployment is 1.4 percentage points lower for a country with a high corporatism wage bargaining system than for a similar country with intermediate or low co-ordination in bargaining. However, several other studies report no significant impact of wage co-ordination/centralisation on unemployment, while Di Tella and MacCulloch (2005) find that greater bargaining centralisation is associated with higher unemployment.

Scarpetta (1996) and Elmeskov *et al*. (1998) provide some support for the "hump-shaped" hypothesis, according to which unemployment is highest when bargaining occurs at an intermediate level, but a larger number of these studies do not.[57] There is also some evidence

Table 3.9. **Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: centralisation and co-ordination of wage bargaining**

Study	Outcome	Comments
Bassanini and Duval (2006)	--	Corporatism.
Baker, Glyn, Howell and Schmitt (2005)	-	Co-ordination.
Di Tella and MacCulloch (2005)	++	Centralisation; also negative impact on employment and participation.
Nickell, Nunziata and Ochel (2005)	--	Co-ordination.
International Monetary Fund (2003)	--	Co-ordination.
Nunziata (2003)	-	Co-ordination.
Bertola, Blau and Kahn (2002a)	++	Higher co-ordination increases the negative impact of shocks.
Bertola, Blau and Kahn (2002b)	+-	Co-ordination increases relative youth unemployment and decreases relative older worker unemployment; negative impact on relative employment of both youth and older workers.
Fitoussi, Jestaz, Phelps, Zoega (2002)	--	Co-ordination.
Jimeno and Rodriguez-Palanzuela (2002)	-	Co-ordination.
Belot and van Ours (2001)	No	Co-ordination.
Blanchard and Wolfers (2000)	--	Higher co-ordination reduces the negative impact of shocks; not significant when institutions are entered individually.
Elmeskov, Martin and Scarpetta (1998)	+-	Validation of hump-shaped hypothesis for co-ordination, corporatism and to a lesser extent centralisation.
Nickell (1997, 1998)	--	Co-ordination; also always significant positive impact on employment rates.
Scarpetta (1996)	--	Co-ordination, validation of hump-shaped hypothesis for co-ordination.

No: No significant impact on unemployment.
+/-: Significant positive/negative impact on unemployment in most but not all cases.
++/--: Significant positive/negative impact on unemployment in all cases.

Statlink: *http://dx.doi.org/10.1787/428547686222*

that centralisation/co-ordination affects the responsiveness of unemployment to macroeconomic shocks. Bassanini and Duval (2006) find that high corporatism wage bargaining structures increase the resilience of the economy to negative shocks. By contrast, Bertola *et al.* (2002a) present evidence for a higher degree of co-ordination increasing the negative impact of adverse macroeconomic shocks on unemployment.

Overall, recent empirical research, including evidence provided in Bassanini and Duval (2006), suggest that high corporatism bargaining systems tend to achieve lower unemployment than do other institutional set-ups. Nevertheless, the evidence concerning the impact of collective bargaining structures on aggregate employment and unemployment continues to be somewhat inconclusive. The overall non-robustness of results across studies probably reflects, at least in part, the difficulty of measuring bargaining structures and practices, as well the fact that the same institutional set-up may perform differently in different economic and political contexts. One exception to this pattern is the robust association between higher centralisation/co-ordination of bargaining and lower wage dispersion (OECD, 2004a, Chapter 3). Evidence is mixed, however, about whether the compressed wage structures associated with corporatist bargaining reduce employment by pricing low-skilled workers – or those residing in economically disadvantage regions – out of work.[58]

Minimum wages. Simple economic reasoning indicates that a statutory minimum wage or labour costs set at too high a level will become a barrier to employment for low-productivity workers, reducing national output while also frustrating the equity goals motivating these measures. However, pinning down the size of the employment losses that result from minimum wages has proven to be difficult and there is considerable uncertainty concerning how many jobs might be lost due to minimum wages set at the levels actually observed in different countries. Indeed, the empirical evidence concerning a negative impact of minimum wages on employment is mixed, with some studies finding evidence of significant effects, particularly for youth (Neumark and Wascher, 1999; OECD, 1998, Chapter 2), while others do not detect any effects (Card and Krueger, 1995; Dolado *et al.*, 1996; Elmeskov *et al.*, 1998). In Bassanini and Duval (2006), no significant impact of the minimum wage on the aggregate unemployment rate is found. However, some evidence does emerge that higher minimum wages may lower the employment rate of youth (*i.e.* the 20-24 age group).

The ambiguous evidence concerning the impact of minimum wages on employment means that it is important for governments making use of a statutory minimum wage to monitor closely whether it is resulting in significant job losses. The fact that a considerable number of studies have found that the adverse impact of minimum wages on employment is modest or non-existent, also suggests that there may be scope to use minimum wages as one part of employment-centred social policy, intended to mitigate poverty while fostering high employment rates (OECD, 1998, Chapter 2 and 2003a, Chapter 3). A minimum wage could encourage higher participation, by helping to make work pay for the low skilled. But it probably can only play a supporting role in a broader anti-poverty programme, due to the need to avoid setting it at too high a level. Another important limitation is that a substantial proportion of the workers in minimum-wage jobs are not poor (*e.g.* because other family members have earnings).[59] In-work benefits can be much more tightly targeted on low-income families than can a minimum wage, but have other drawbacks (*e.g.* their budgetary cost and possible stigma effects). Furthermore, as emphasised in Sub-section 2.2, a modestly set minimum wage may be a useful supplement to in-work benefits, since it limits the extent to which employers can appropriate that benefit by lowering pay levels (Gregg, 2000; OECD, 2005d).

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An important consideration in setting the level of the minimum wage is how it interacts with the tax system, since there is evidence that an overly high minimum wage magnifies the negative impact of the labour tax wedge on employment (see Sub-section 3.2). An employer considering hiring a low-skilled or inexperienced worker is likely to compare the worker's expected productivity with the sum of the minimum wage and employer-paid social security contributions. Table 3.10 shows that the minimum cost of labour, as a percentage of labour costs for the average employee, differs significantly across countries with statutory minima, ranging from under 20% in Mexico in 2004 to over 50% Australia, Turkey and three EU countries. In most cases, the relative cost of employing a minimum wage worker did not change much between 1997 and 2004.[60]

Table 3.10. **Ratio of employers' labour costs[a] for minimum wage workers relative to median wage workers in the 21 OECD countries with statutory minima, 1997, 2000, 2004[b]**

	1997	2000	2004
Mexico	0.23	0.21	0.19
Korea	0.22	0.23	0.27
Spain	0.33	0.31	0.29
United States	0.38	0.36	0.31
Japan	0.31	0.31	0.32
Czech Republic	0.22	0.30	0.37
Slovak Republic	–	0.43	0.39
Ireland	–	0.40	0.39
Poland	0.45	0.41	0.40
Canada	0.44	0.44	0.41
Portugal	0.43	0.46	0.44
United Kingdom	–	0.42	0.44
Hungary	0.25	0.27	0.45
Belgium	0.50	0.48	0.45
New Zealand	0.45	0.44	0.47
Greece	0.52	0.50	0.49
Netherlands	0.48	0.50	0.51
France	0.55	0.55	0.54
Luxembour	0.55	0.52	0.54
Turkey	0.42	0.39	0.57
Australia	0.59	0.57	0.58

– Not applicable.

a) Gross wage payment plus employers' mandatory social security contributions, as proxied by employers' contribution rates for a single worker with no children at the 0.67 average production worker earnings level.

b) Countries ordered from lowest to highest relative cost of employment minimum wage workers in 2004.

Source: OECD Statutory Minimum Wages and Taxing Wages databases.

Statlink: *http://dx.doi.org/10.1787/052430283755*

Lessons

Recent experience confirms the importance of policies to assure that wages adjust flexibly in response to supply- and demand-side pressures, so as to support high levels of employment in a constantly changing economic environment. The detailed policy recommendations for reforming wage-setting institutions remain largely valid, but there appear to be grounds for introducing some modifications:

- *Collective bargaining.* The original Jobs Strategy recommendations appear to be well targeted in their focus on minimising the adverse consequences that can result from industry-level bargaining. In particular, reforms should be considered where bargaining practices result in

downward real wage rigidities or too little differentiation of relative wages by skill, region or other dimensions. However, it would be useful to take fuller account of the fact that national industrial relations structures and practices are part of the social and political fabric, implying that bargaining structures are not easily changed by government action. For example, there has been little or no reduction in contract extensions, despite a strong OECD recommendation in this direction. If fundamental reforms cannot be implemented in this area, then it would be more useful to place greater emphasis on identifying policies that increase wage flexibility in the presence of such structures (*e.g.* policies to increase the effectiveness of opt-out procedures). Recent experience also suggests that greater allowance be made for the potential contribution of centrally co-ordinated bargaining to achieving aggregate wage restraint, at least in those countries whose histories and institutional structures are compatible with such an approach.

- *Minimum wages*. Recent experience suggests that a moderate minimum wage generally is not a problem, but that adequate allowance for sub-minima for youth and possibly other vulnerable groups is essential. Another insight is the potential for a well-designed minimum wage to contribute to a broader strategy to foster higher employment by guaranteeing that work pays better than remaining on social benefits. However, the danger posed by negative policy interactions has also been confirmed, particularly that between a too-high minimum wage and high rates of labour taxation.

3.2. Taxation of labour income

As one of its broad policy guidelines, the 1994 OECD Jobs Study recommended policies to make wage and labour costs more flexible, including by reducing non-wage labour costs that lead to increased unemployment unless they are offset by wage concessions (OECD, 1994a). The detailed recommendations for reducing non-wage labour costs included to:[61]

- Reduce taxes on labour in general, where the budget situation or expenditure reductions make this possible and/or where this can be achieved by shifting away from these towards other types of taxes.
- Reduce direct taxes and employers' social security contributions on low-wage workers, in order to shift labour demand towards them.

These recommendations reflected the concern that high tax rates on labour income tend to depress labour supply and effort, by driving a wedge between marginal productivity and the reward for work. To the extent that high personal income taxes and consumption taxes translate into higher wages, as wage earners succeed in shifting the tax burden onto employers, the resulting increase in labour cost will have adverse effects on employment. Similar considerations apply to high payroll taxes or employers' social security contributions which are even more likely to raise labour costs in the presence of wage floors created by statutory minimum wages. On the other hand, if employers succeed in shifting such taxes onto employees in the form of lower wages, this may have a negative effect on labour supply – in particular in the case of low-wage earners – as the real take-home pay decreases. Finally, a high tax burden on labour creates an incentive to resort to the shadow economy.[62]

Policy developments since 1994

Many OECD countries have made considerable efforts over the 1994-2004 period to lower the labour tax burden in general and on low wages in particular (Table 3.11):

- Figure 3.7, Panel A shows that direct tax wedges[63] on the income of the stylised average production worker (APW)[64] have fallen in most member countries for which data are available. The main exceptions are Austria, the Czech Republic, Japan, Korea and Norway where the tax wedge rose substantially.[65] Tax wedges in Canada, France, Poland, Sweden and Turkey remained stable or increased slightly. Tax cuts on average incomes have been particularly striking in Hungary, Italy, the United Kingdom, the United States and especially Ireland.[66] Efforts to lower the tax burden on labour were undertaken both

Table 3.11. **Labour taxes and social security contributions: policy reforms over the 1994-2004 period**[a]

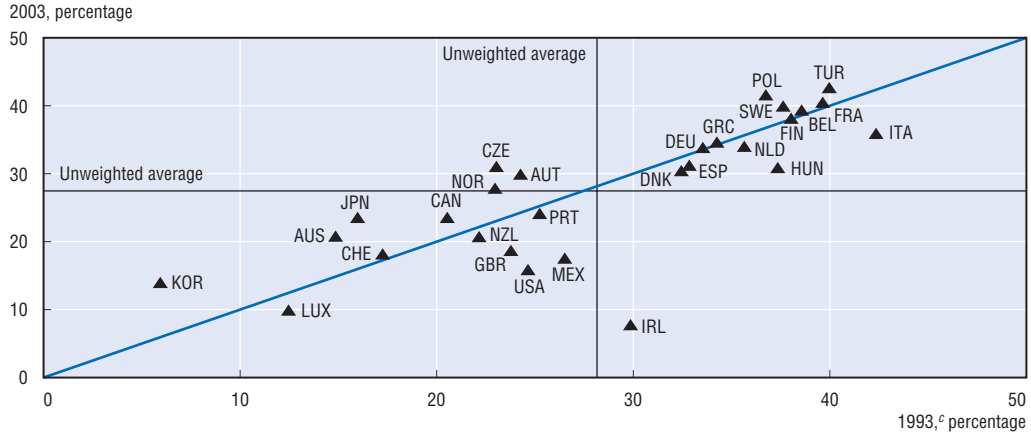
	Reductions for all incomes		Targeted reductions for low incomes	
	Overall	Payroll taxes	Overall	Payroll taxes
Australia	+	-	+	
Austria	+		+	
Belgium	+		+	+
Canada	+	[+, -]	+	
Czech Republic	+			-
Denmark	X[b]	[+, -]	X[b]	
Finland	[+, -]	[+, -]	+	
France	+	[+, -]	+	+
Germany	+	[+, -]	+	[+, -]
Greece	[+, -]		[+, -]	+
Hungary	+	[+, -]	[+, -]	
Iceland	[+, -]	[+, -]		
Ireland	+	+	+	+
Italy	+	+	+	+
Japan	+	-		
Korea	+	[+, -]	+	
Luxembourg	+	[+, -]	+	
Mexico	[+, -]	[+, -]	+	-
Netherlands	+	[+, -]	+	[+, -]
New Zealand	[+, -]		+	+
Norway	[+, -]	-	+	
Poland	[+, -]	-	[+, -]	
Portugal	+	[+, -]	+	
Slovak Republic	+	+	[+, -]	
Spain	+	X[c]	+	
Sweden	[+, -]	[+, -]	+	
Switzerland		[+, -]		
Turkey	[+, -][d]	-	[+, -][d]	
United Kingdom	+	+	+	+
United States	+		+	

a) +: Reforms following the OECD Jobs Strategy.
-: Reforms contrary to the OECD Jobs Strategy.
[+, -]: Reform elements going in different directions.
b) Tax reductions at the national level have been counteracted by increases at the local level.
c) Reductions for new permanent contracts.
d) Large increases in tax wedges through bracket creep as a result of high inflation.
Source: OECD Economic Surveys.

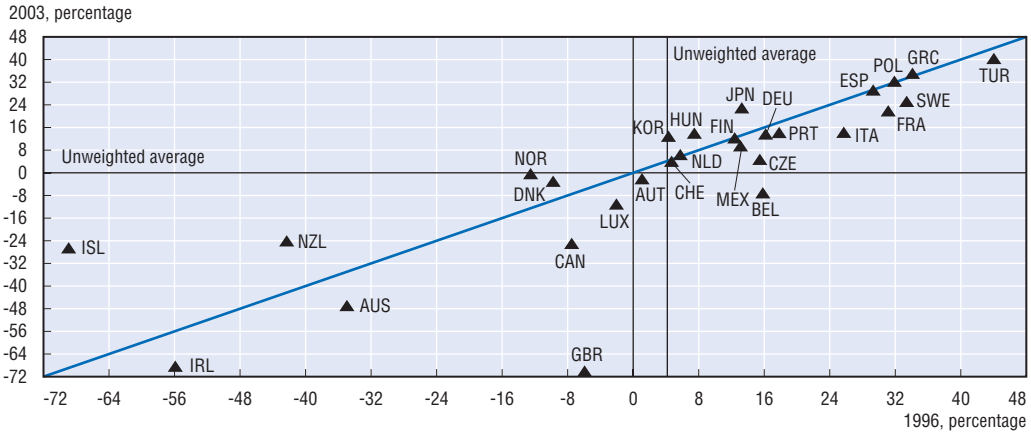
Statlink: *http://dx.doi.org/10.1787/583335744578*

Figure 3.7. **Evolution of tax wedges for different earnings levels and family types**

Panel A. **Couple (100% and 0% of APW[a]) with two children, 1993-2003[b]**



Panel B. **Single low earner (40% of APW[a]) with two children,[d] 1996-2003[b]**

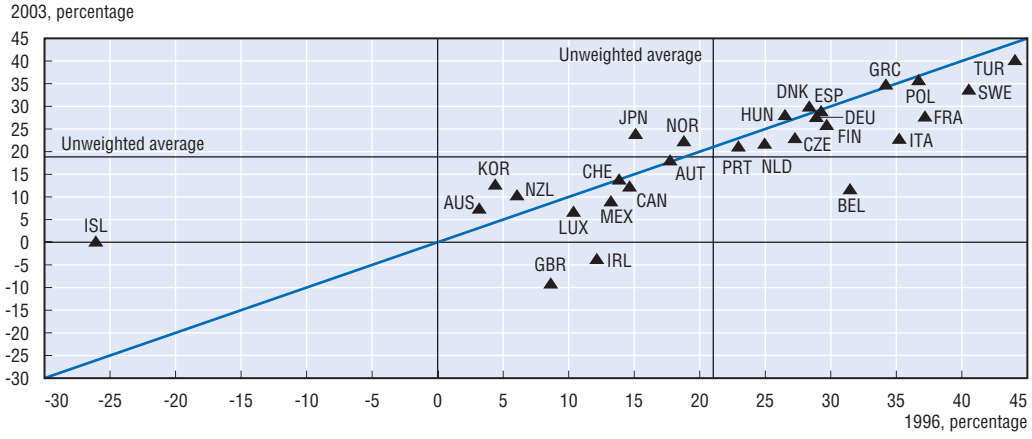


in countries that had already taxed labour comparatively moderately in 1993 and in countries which at that time had relatively high tax wedges.

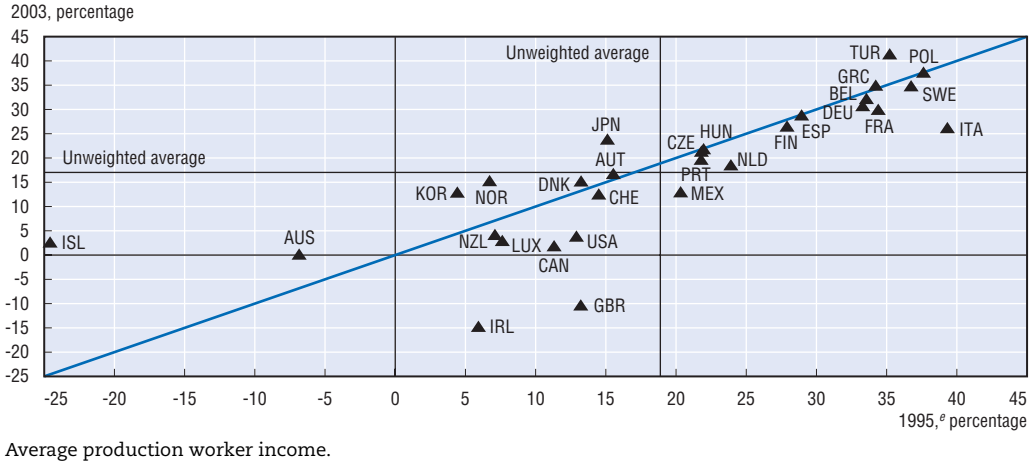
- Direct tax wedges on low-wage workers (defined as 40% of APW, which is at or below full-time statutory minimum wages in many countries) have also shown a tendency to fall (Figure 3.7, Panel B). These reductions often reflect the introduction or expansion of "make-work-pay" policies, such as in-work benefits (see Sub-section 2.2).[67] The largest cuts at this earnings level have taken place in Belgium, Canada and especially the United Kingdom. A few countries registered an increase in the tax wedge on very low incomes, as a result of an increase in net taxes (Japan and Korea) or reduced cash benefits (Iceland and Norway). A similar picture emerges for families in which both spouses are low-wage workers, except that the reductions in the tax wedge tend to have been smaller due to make-work-pay reforms having targeted the largest benefits to the families with the lowest incomes (Figure 3.7, Panel C).
- Direct tax wedges on moderately low labour income (defined as 67% of APW) have also been reduced in a number of countries (Figure 3.7, Panel D). The largest tax cuts for this level of earnings were made in Ireland and the United Kingdom. Comparing Panel A of Figure 3.7 with Panels B to D reveals that some countries with largely stable taxes on

Figure 3.7. **Evolution of tax wedges for different earnings levels and family types** *(cont.)*

Panel C. **Dual low-earner couple (both earning 40% of APW[a]) with two children,[d] 1996-2003[b]**



Panel D. **Single moderately low earner (67% of APW[a]) with two children,[d] 1995-2003[b]**



a) Average production worker income.
b) Some of the apparent changes in the tax wedge are due to changes in methodology for Australia, Austria, the Czech Republic, Finland, Germany, Hungary, Italy, Japan, Mexico and the Netherlands.
c) 1994 for France, 1995 for Hungary and Korea.
d) Negative tax wedges reflect tax credits and child benefits in excess of any tax paid.
e) 1996 for Korea.

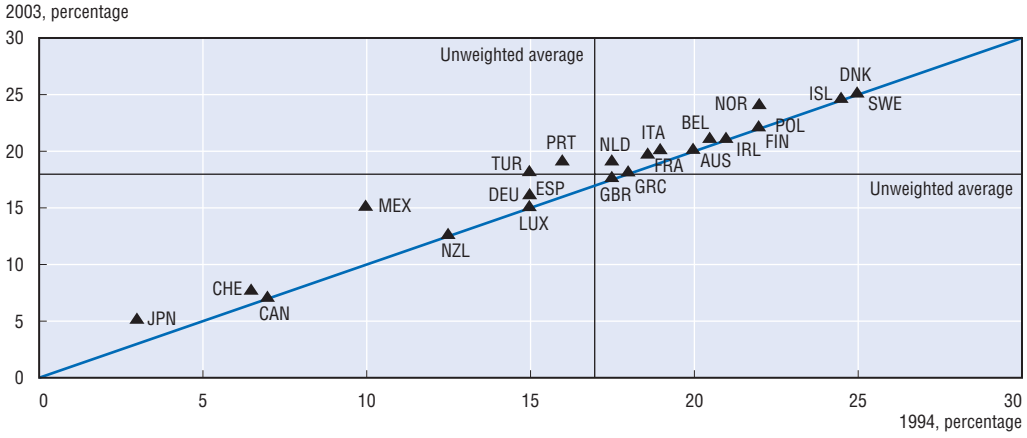
Source: OECD (2005), *Taxing Wages 2003/2004*, Paris.

Statlink: *http://dx.doi.org/10.1787/788008110585*

average incomes have targeted tax cuts on lower incomes, notably Belgium, Canada, France and Sweden. Again, countries that significantly decreased taxes on lower incomes included some that already had a relatively light labour tax burden for these income groups in 1996 and some that had higher taxes at that time. In general, countries with initially low taxes tended to cut taxes with greater vigour than did countries with higher taxes.

- In a number of countries, value-added taxes have been increased over the past ten years (Figure 3.8), including some where the direct labour tax burden also increased (*e.g.* Japan) and others that reduced direct taxes on labour (*e.g.* Italy and the Netherlands).

Figure 3.8. **Evolution of value-added taxes, 1994-2003**



Source: OECD Tax database. Statlink: *http://dx.doi.org/10.1787/402612723606*

New evidence

The overall tax wedge. Among the econometric studies reported in Table 3.12, a majority find evidence that a higher labour tax wedge increases unemployment.[68] Bassanini and Duval (2006) also find that higher labour taxes raise unemployment, with the estimated coefficient for the average tax wedge being highly significant across a wide range of alternative specifications. The baseline specification implies that a 10 percentage points reduction of the tax wedge in an average OECD country would reduce equilibrium unemployment by 2.8 percentage points and increase the employment rate by a larger 3.7 percentage points (due to the positive impact on participation). Another implication of these estimates is that the reductions in the tax wedge, which were observed during 1983-2003 in a considerable number of countries, substantially lowered equilibrium unemployment (including reductions of more than 5 and 3 percentage points, respectively, in Ireland and the United Kingdom).

The extent to which increases in the tax wedge result in higher unemployment appears to be affected by the institutional set-up for wage-setting, as is predicted by most theoretical models (Nickell, 2003). Daveri and Tabellini (2000) find a particularly strong impact of the tax wedge in countries where high trade union membership is combined with a low or intermediate degree of centralisation/co-ordination of wage bargaining. Elmeskov *et al.* (1998) also find large effects in countries with intermediate centralisation/co-ordination. These findings suggest that trade unions are particularly likely to compensate for higher taxes by successfully pushing for higher wages when sectoral wage bargaining predominates, with detrimental effects on unemployment.[69] Bassanini and Duval (2006) find that increases in the tax wedge have a greater impact in raising unemployment the higher the minimum wage is set relative to average wages. This is consistent with too-high minimum wages impeding the possibility for employers to shift all or part of the incidence of pay-roll taxes onto low-productivity workers by lowering wages.[70]

Some recent research suggests that the overall impact of labour taxation on labour supply may be substantially larger than that indicated by the impact of taxes on unemployment, since higher taxes may also tend to reduce annual hours worked for persons in employment. Prescott (2004) argues that differences in the effective marginal tax rate on labour income can account for essentially all of the variation in per capita hours worked across G-7 countries, including the very large differences in labour utilisation between France, Germany and Italy, at

Table 3.12. **Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: labour tax wedges**

Study	Outcome	Comments
Bassanini and Duval (2006)	++	
Baker, Glyn, Howell and Schmitt (2005)	No	
Di Tella and MacCulloch (2005)	No	Negative impact on employment and participation.
Nickell, Nunziata and Ochel (2005)	+	
International Monetary Fund (2003)	++	
Nunziata (2003)	+	
Bertola, Blau and Kahn (2002a)	+	Higher tax wedges imply a higher adverse impact of shocks on unemployment.
Bertola, Blau and Kahn (2002b)	No	Impact on group specific employment differentials.
Fitoussi, Jestaz, Phelps, Zoega (2002)	No	
Jimeno Rodriguez-Palanzuela (2002)	++	
Belot and van Ours (2001)	++	
Morgan and Mourougane (2001)	+	
Blanchard and Wolfers (2000)	++	Higher tax wedges imply a higher adverse impact of shocks on unemployment.
Daveri and Tabellini (2000)	++	Only labour related taxes.
Elmeskov, Martin and Scarpetta (1998)	++	
Nickell (1997, 1998)	++	
Scarpetta (1996)	No	Except for long-term unemployed.

No: No significant impact on unemployment.
+/-: Significant positive/negative impact on unemployment in most but not all cases.
++/--: Significant positive/negative impact on unemployment in all cases.

Statlink: *http://dx.doi.org/10.1787/823878053706*

the low end, and Japan and the United States, at the high end. This, however, appears to be a substantial overestimate, since no account is taken of other policies and institutions potentially affecting employment and hours per worker.[71] Nonetheless, labour taxation almost certainly has an important effect on hours per worker, as well as on the employment rate (*i.e.* it affects both the intensive and extensive margins of labour supply).

Overall, there is quite strong evidence that cutting tax wedges can promote higher employment, provided that doing so is consistent with maintaining fiscal balance. Even when it is not possible (or not desirable) to make room for cutting tax wedges by restraining public spending, it may still be possible to lower the wedge by substituting revenue derived from alternative tax bases. However, proposals to substitute non-labour for labour taxes should be closely scrutinised, because expanding other types of taxes is likely to raise efficiency and equity concerns. Nonetheless, shifting the mix of taxation away from labour income and towards greater reliance on a broader base (*i.e.* one that also encompasses non-labour income) or by raising taxes aimed at internalising a negative externality (*e.g.* carbon or road congestion taxes) may sometimes be desirable.

Even when the overall budget situation means that it is not feasible to implement a general reduction in the labour tax wedge, it still may be desirable to cut the tax wedge for select labour force groups. As is indicated in Table 3.11, tax cuts targeted at workforce groups considered to be at a high risk of "exclusion" from the labour market and poverty have been adopted by a number of OECD countries during the past decade. A final lesson from recent research is that it may be possible to reduce the labour supply disincentives associated with a given labour tax wedge by more closely linking social security contributions to the accumulation of individual benefit entitlements (*i.e.* by converting these taxes into a form of deferred compensation).[72] However, this strategy may be limited by the need to avoid undermining the insurance and redistributive goals that these programmes are typically intended to foster.

Tax exonerations for low-wage workers. Both a generous minimum wage and a high level of employers' social security contributions can price low-skilled workers out of jobs, and the combination of both factors is likely to be particularly problematic. In such cases, inadequate labour demand is the main barrier to increased employment for low-skilled individuals, suggesting that policy measures to reduce lower labour costs should be a high priority. Lowering the minimum wage is one option, but it raises equity concerns and often encounters strong political resistance. By contrast, a number of European countries where social security contributions are high relative to average earnings have attempted to tackle this problem by introducing tax exonerations for low-wage workers.

In countries that have implemented a reduction in employers' social security contributions for low-paid workers (mainly Belgium, France and the Netherlands), most available macroeconomic evaluations report significant positive impacts on employment, in particular for low-skilled labour (OECD, 2003a, Chapter 3). Broad measures to reduce employers' social security contributions for low-paid jobs pose, however, a major funding issue. Furthermore, the deadweight effects are likely to be substantial as a broad group of workers is covered and fast-expanding companies receive the same subsidy as those in decline.[73] This is the main criticism levelled at this kind of policy, which also subsidises existing jobs that are not under threat as well as new jobs that might have been created in the absence of the scheme. For instance, according to employer surveys in the Netherlands, between 20 to 60% of *new* recruits would have been hired without the financial support. The longer-term impacts to be expected from these measures are probably underestimated in employer surveys, since companies may largely tailor employment to demand for their goods or services in the short term, whereas lower labour costs may give companies a financial boost and enhance their capacity for job creation in the long run.

Two additional design issues arise when implementing these types of tax exonerations:

- When the reduction is based on the monthly wage alone and not on the number of hours worked, this type of measure may inappropriately subsidise part-time work at relatively high hourly rates. If low-skilled, low-paid jobs are the real target, the reduction in employers' contributions should be related to the hourly wage.
- From the workers' standpoint, there is also a risk of seeing low-pay traps emerge. This is because payroll tax reductions for low-paid jobs make the tax system more progressive (or at least less regressive), rendering it more expensive for companies to award wage increases at the bottom end of the wage ladder. To address this problem, the Netherlands launched an interesting complementary measure (T-SPAK), which temporarily subsidised wage increases that would otherwise cause employers to lose their entitlement to the broader reduction in contributions (OECD, 2003a, Chapter 3).[74]

Lessons

Recent experience reinforces concerns that a high tax wedge on labour earnings is likely to significantly reduce employment and total hours worked, while confirming the potential of tax exonerations targeted on low-wage workers to shift labour demand towards this group. Successful action in this area may benefit from giving increased emphasis to several considerations:

- *Overall tax wedge*. The main constraint here is the necessity to maintain budget balance. This consideration confirms the importance of a comprehensive response to population ageing in order to prevent intense upward pressures on social spending and hence tax

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rates. It also suggests consideration of whether there is scope for transferring some of the taxes levied on labour income to other tax bases.

- *Tax exonerations for low-wage workers*. Targeted reductions in taxes have emerged as an essential policy tool in countries where there is little budget room for broad cuts in labour taxation and strong political support for a generous minimum wage. However, even targeted reductions can imply significant revenue losses that may need to be recouped by increased taxation of higher earning workers. This underlies the need for much more evaluation of how best to design targeted exonerations so as to minimise deadweight and substitution effects.

3.3. Employment protection legislation

Employment protection legislation (EPL) – the set of rules governing the hiring and firing of employees – has traditionally been conceived as a way to enhance job security for workers. However, EPL also increases the costs for the employer of adjusting their workforce and can create a barrier to hiring. Furthermore, the administrative and judicial procedures used to implement EPL may result in long delays, while also making these costs unpredictable and thus difficult to offset through lower wages obtained at the bargaining table. Under such conditions, overly stringent EPL may have a negative impact on hiring decisions. The key issue for policy is how to reconcile the employers' need for flexibility in hiring and firing with that of workers for employment security.

The 1994 Jobs Strategy advocated reforms to EPL in two directions:

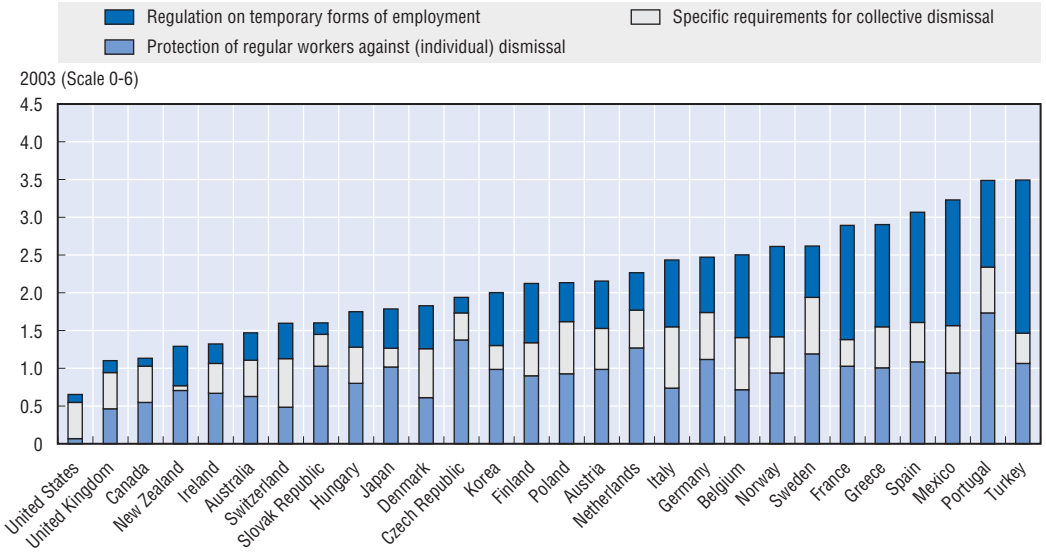
- To review the regulations on permanent or regular contracts, so as to better facilitate dismissals that are required on economic grounds while sanctioning unfair or discriminatory dismissals.
- To facilitate the use of fixed-term and other temporary contracts while also avoiding creating incentives for employers to make excessive use of these forms of employment (*e.g.* through implicit subsidies created by the unemployment insurance system).

Policy developments since 1994

According to the OECD, summary indicator of EPL strictness, policy stances vary considerably across countries (Figure 3.9). Southern European countries, Mexico and Turkey – followed by Norway and Sweden – have relatively strict regulations. By contrast, EPL is relatively light in English-speaking countries. These cross-country differences persist, despite some convergence of EPL since 1994 (Figure 3.10):

- Regulations have become somewhat less strict in the majority of the medium and high-EPL countries. Typically, these reforms eased the recourse to temporary forms of employment, while leaving existing provisions for regular or permanent contracts practically unaltered. Indeed, since 1994, only six countries have relaxed the rules pertaining to permanent workers, *i.e.* Austria, Finland, Korea, the Slovak Republic, Spain and (marginally only) Turkey.
- Australia, Ireland, New Zealand and the United Kingdom – all countries with low levels of EPL strictness in 1994 – have since moderately tightened job protections. In Australia and New Zealand, these changes were largely enacted through collective agreements.[75] In the United Kingdom and Ireland, where temporary contracts were previously the object of little regulation, the changes consisted in limiting slightly the use of these forms of employment and reducing their duration to a maximum of four years.[76] Hungary and Poland also moderately tightened the rules governing temporary employment, albeit in combination with somewhat higher levels of protection for regular employees.

Figure 3.9. **Overall summary index of EPL strictness and its three main components, 2003**[a]



EPL: Employment protection legislation.

a) Countries are ranked from left to right in ascending order of the overall summary index.

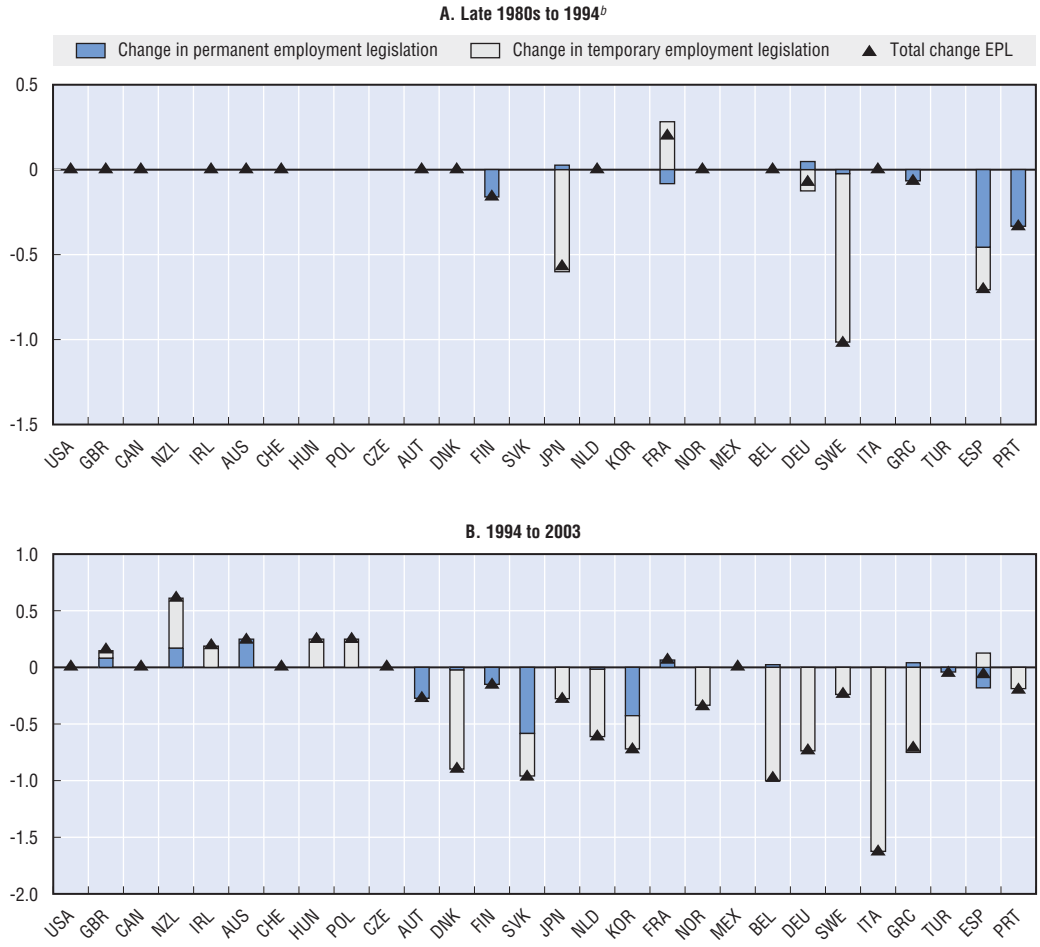
Source: OECD (2004), *OECD Employment Outlook*, Chapter 2, Paris. Statlink: *http://dx.doi.org/10.1787/280428587352*

New evidence

The impact on employment, unemployment and labour turnover. A large number of empirical studies have evaluated the impact of EPL on labour market performance in general and unemployment in particular. A key finding is that the effect of EPL on overall unemployment is probably small (Table 3.13). Recent cross-country panel regression studies, including Bassanini and Duval (2006), generally have not found robust evidence for a significant direct effect of EPL on unemployment. Nonetheless, several of these studies suggest that EPL may affect aggregate labour market outcomes indirectly, through its interaction with macroeconomic shocks (see Chapter 6). Furthermore, most recent empirical studies conclude that EPL appears to fulfil its stated purpose, namely protecting existing jobs (see OECD, 2004a, Chapter 2 and the studies cited therein). However, EPL also restrains job creation, so that the net effect on total employment is *a priori* ambiguous and apparently small in practice. A number of the studies included in Table 3.13 find that strict EPL tends to compromise the employment prospects for those groups which are most subject to entry problems, such as young workers, women and the long-term unemployed, by reducing labour turnover and hiring (Bertola *et al.*, 2002b; Jimeno and Rodriguez-Palanzuela, 2002; OECD, 2004a).

There is also evidence that a partial reform strategy, which relaxes limitations on the use of temporary employment while maintaining strict EPL on regular contracts, may have adverse long-term effects (Blanchard and Landier, 2002; Dolado *et al.*, 2002; OECD, 2004a, Chapter 2). When regulations on regular contracts remain overly strict, employers tend to recruit mainly through temporary contracts and are reluctant to convert these contracts into permanent ones. The result is an increased concentration of labour turnover on work-force groups who are over-represented in temporary jobs, potentially trapping some of them into a future of "precarious" jobs that implies high levels of employment insecurity (see Sub-section 2.1 of Chapter 5), as well as under-investment in human capital which wastes part of their productivity potential (see Section 4 below). Workers cycling between fixed-term contracts

Figure 3.10. **Changes in EPL strictness since the late 1980s**[a]



EPL: Employment protection legislation.

a) Countries are ranked from left to right in ascending order of the overall summary indicator of EPL strictness in the late 1980s (1994 when 1980s data are not available), which takes account of the regulation of temporary employment and the protection of regular employees against (individual) dismissal.

b) Data for the late 1980s are not available for the Czech Republic, Hungary, Korea, Mexico, New Zealand, Poland, the Slovak Republic and Turkey.

Source: OECD (2004), *OECD Employment Outlook*, Chapter 2, Paris.

Statlink: *http://dx.doi.org/10.1787/600463384132*

and time out of employment may also fail to qualify for unemployment benefits and be exposed to a high level of income insecurity. The need for better protection of the rights of workers on temporary contracts has received particular attention in certain countries, including Japan, Korea and Spain. Put differently, partial EPL reforms that focus exclusively on freer use of temporary contracts, though possibly facilitating job creation, may have negative side-effects in the longer term which run counter to good labour market performance.[77]

EPL reforms that help reconcile security with flexibility. Since 1994, more has been learnt about how to reform EPL on regular contracts while still providing adequate protection to workers. Two key ingredients in this respect are to make regulations more predictable and to minimise the extent to which EPL results in inefficient labour turnover:

- The long and variable delays that sometimes characterise the administrative and legal procedures through which EPL is implemented can be an important source of

Table 3.13. **Literature survey of the econometric evidence of the influence of institutions on equilibrium unemployment: employment protection legislation (EPL)**

Study	Outcome	Comments
Bassanini and Duval (2006)	No or -	
OECD (2004a), Chapter 2	-	Negative effect on labour market dynamics, with the result increase in the share of long-term unemployment; negative and significant effects on the employment outcomes of youth and prime-age women; difference between EPL for temporary and permanent contracts found to increase the incidence of temporary work among the low-skilled and youth.
Baker, Glyn, Howell and Schmitt (2005)	No or -	
Nickell, Nunziata and Ochel (2005)	No	
International Monetary Fund (2003)	++	Also significant negative interaction with union density.
Nunziata (2003)	No	No impact on levels but increases unemployment persistence.
Bertola, Blau and Kahn (2002b)	+	Positive, not always significant, impact on youth and prime-age women relative to prime-age men unemployment; positive, not always significant, impact on relative older worker unemployment.
Jimeno and Rodriguez-Palanzuela (2002)	+	For relative unemployment of youth female only.
Belot and van Ours (2001)	No or -	
Morgan and Mourougane (2001)	-+	Depending on the EPL measure used.
Blanchard and Wolfers (2000)	+	Stricter EPL increases the negative impact of shocks on unemployment.
Daveri and Tabellini (2000)	No or -	Only significant for unemployment levels.
Elmeskov, Martin and Scarpetta (1998)	+	Larger negative impact in countries with intermediate co-ordination level.
Nickell (1997, 1998)	No	But negative impact on employment.
Scarpetta (1996)	+	Significant only in the absence of wage centralisation variable.

No: No significant impact on unemployment.
+/-: Significant positive/negative impact on unemployment in most but not all cases.
++/--: Significant positive/negative impact on unemployment in all cases.

Statlink: *http://dx.doi.org/10.1787/460212535731*

uncertainty and delay. The recent Dutch experience is a good example of how employers may prefer higher average severance payments to slower and more uncertain administrative and legal procedures (Box 3.3).

- EPL can be a barrier to efficiency-enhancing labour re-allocation, including by discouraging workers from quitting their current jobs in order to move to better jobs. This problem can arise where high-tenure workers are entitled to significant severance payments, in the event of being laid-off from their current jobs, but surrender this entitlement if they voluntarily change employers. A recent reform in Austria addressed this problem by transforming a traditional severance pay system into individual severance accounts. A second advantage of the new set-up is that there is no longer any uncertainty for employers considering hiring a worker over whether it will be necessary to make severance payments to that worker at some time in the future (Box 3.3).

Another key ingredient is to assure that EPL is effectively co-ordinated with unemployment benefits and ALMPs so as to reconcile a high level of flexibility for employers with economic security for workers. In particular, recent experience shows that moderately strict EPL, when combined with a well-designed system of unemployment benefits and a strong emphasis on active labour market programmes, can help create a dynamic labour market while also providing adequate employment security to workers. Denmark is an oft-cited example of a country which has chosen to combine relatively high unemployment insurance benefits and a strong "activation" stance with only *moderately strict* EPL, the so-called "flexicurity" approach. Reflective of its relatively liberal EPL regime, the mobility of workers between jobs and the rates of both job creation and job destruction

Box 3.3. **EPL lessons from Austria and the Netherlands**

Austria has recently reformed its system of severance payments so as to convert unpredictable dismissal costs for employers into a system of individual savings accounts, funded from a set contribution by employers.

Under the old system, severance was paid to private-sector employees in the event of termination of the employment contract by the employer, as long as the employee had worked for the employer for at least three years. The payment amount was based on the *length* of the employment relationship between *that worker* and *that firm*.* Since the individual accounts were introduced in 2003, employers are required to contribute 1.5377% of the payroll to each worker's individual account (managed by a fund that invests the balance in private capital markets), from the first day of employment until contract termination. In the event of dismissal, an employee with at least three years of job tenure has the option to receive a severance payment from the account. Alternatively, the worker can leave the accumulated balance in the account which is then carried over to the next job, as is also the case for dismissals occurring during the first three years of a job and voluntarily quits. Indeed, the new separation allowance can be cumulated by the employee over an *entire working life*, functioning as a form of retirement saving. From the employer's standpoint, this new system suppresses the specific monetary cost of a dismissal and the uncertainty related to this payment at the time of hiring. However, their contributions to the individual accounts increase labour costs, unless they are compensated for via wage reductions. From the workers' standpoint, job mobility costs are reduced because they do not lose their entitlement to severance payments when quitting to take a new job.

The Netherlands provides an interesting illustration of how shorter EPL procedures with more predictable outcomes may be preferred by employers to uncertain procedures, even when the latter imply lower average severance payments. Clearly, workers experiencing layoffs also benefit from procedures that result in quicker, more predictable and higher severance payments.

Dutch dismissal law is governed by a "dual system". On the one hand, an employer can dismiss a worker without severance payments, provided that the employer has received prior permission to do so from the designated public authority, the Centre for Work and Income (CWI). However, this procedure is slow and its outcome uncertain in two respects: *i)* the CWI may deny the request; and *ii)* workers dismissed under this procedure may seek compensation for wrongful dismissal or reinstatement in the courts. Since the 1970s, an employer can opt instead to petition a sub-district court to dissolve the employment contract under the provisions of the Civil Code (referring to "compelling grounds" or "changed circumstances"). The court checks the request's validity and, if the contract is dissolved, the court usually imposes severance compensation to be paid by the employer. In practice, the court method is much quicker and the size of severance awards substantial, but quite predictable. Whereas less than 10% of the requests for dissolution were submitted to the courts in the late 1980s, this proportion had grown to about 50% in 2002. That is, employers have progressively shifted towards a more expensive procedure, in terms of average severance payments, because the court procedure is quicker and more predictable than the CWI procedure.

* The payment started with one month's wage per year of tenure exceeding three years, and reached a maximum of one year of pay for workers with 25 years of seniority of more.

are relatively high in Denmark.[78] One might expect to see such a high level of job mobility and moderate level of employment protection reflected in a widespread perception of insecurity among Danish employees, but this is not the case. The fact that job losers receive generous unemployment benefits and job-search support may help explain the relatively low degree of insecurity perceived by Danish workers: a somewhat higher risk of job loss being more than compensated by a reduction in the adjustment costs associated with changing jobs (OECD, 2004a, Chapter 2).[79] This experience suggests that it may sometimes be possible to build political support for relaxing EPL in countries where it is judged to be too strict, if that reform can be combined with measures to improve the assistance available to job losers (see Chapter 6).

The Danish system does imply a high level of public expenditures, however, and other OECD countries – particularly, the English-speaking member countries – have chosen to combine somewhat lower EPL strictness with lower levels of spending on unemployment benefits and ALMPs. As in the Danish case, however, these countries place a strong emphasis on facilitating labour market dynamism while also cushioning income losses following lay-offs through fostering the rapid re-employment of job losers.[80]

Lessons

Recent experience reinforces concerns that too strict EPL is likely to reduce labour turnover below the optimal level, reducing the dynamic efficiency of the economy while worsening long-term unemployment and disadvantaging youth and women. Since 1994, several guideposts for how best to design EPL, in a manner which facilitates hiring and firing while still providing adequate security to workers, have become clearer:

- *Good EPL design*. At any given level of EPL strictness, efficiency can be enhanced by reforming the implementation of these regulations so that they are quick, predictable and distort labour turnover as little as possible. Partial reforms that aggravate labour market dualities should be avoided, including by better protecting the rights of workers on temporary contracts in countries where they have substantially worse employment conditions than workers in permanent jobs or poor prospects for moving into more stable jobs.
- *Co-ordination of EPL with other policies*. Both political economy and efficiency considerations indicate that EPL reforms should be carefully co-ordinated with reforms to the unemployment benefits system (see Sub-section 2.1) and ALMPs (Sub-section 2.3), so as to reconcile so far as is possible labour market flexibility with security for workers.

3.4. Working-time arrangements

The 1994 Jobs Strategy called for action to enhance working-time flexibility, recommending:

- Policies to foster *flexibility in working-time arrangements*. Measures to encourage the expansion of voluntary part-time employment received particular emphasis, but other types of arrangements were also cited (*e.g.* hours averaging and increased flexibility for scheduling work outside of the conventional workweek).
- Policies to foster *working-hours flexibility over the life course*. It particular, it was recommended that measures be taken to offer older workers a wider array of choices for phased retirement.

These policy recommendations were intended to increase employment by enhancing both labour demand and labour supply. Labour demand would be reinforced via a more efficient scheduling of production (*e.g.* adaptation of shop opening hours to the evolution of shopping-time preferences). At the same time, labour supply would be enhanced by making it easier for workers to obtain a work schedule compatible with their family responsibilities and work-leisure preferences, as they evolve over the life course. This section discusses recent developments related to flexibility in working-time arrangements and their potential contribution to expanding employment. Sub-sections 1.1 and 1.2 of Chapter 4 offer more detailed discussions of how flexible working-time arrangements can help to reconcile market work with parenting and facilitate later retirement.

Policy developments since 1994

Flexible work hours. Since 1994, many OECD countries have enacted reforms expanding workers' and employers' options for making use of flexible working-time arrangements; both by allowing more variability over time in work schedules (*e.g.* annualisation of working hours) and more flexible recourse to work outside of the conventional workweek (*e.g.* evening/night and weekend work and shift-work). OECD (2006a) summarises a number of examples of these types of reforms observations (see Table W.3.3, Panel A), which suggest the following:

- A number of countries have lengthened the reference period that can be used for *hours averaging*. In a number of European countries (Austria, Belgium, France and the United Kingdom) hours can now be annualised (*i.e.* averaged over 12 months), albeit subject to maximum weekly hourly limits which have sometimes been lowered, even as the allowable averaging period was increased.[81] In averaging schemes, extra hours worked are compensated by time-off, such as rest days, rather than being subject to overtime premia when the normal workweek is exceeded. This allows employers to save on paying extra hours at overtime rates, within limits, and to better adjust labour demand to production needs.
- Norway, Poland and the Slovak Republic have given employers greater flexibility to schedule *overtime hours* and/or reduced the pay premium for overtime hours. France has recently raised annual ceilings on overtime hours and lowered the overtime premium to 25% for the first eight hours, measures intended to reduce the impact of the 35-hour week on labour costs. By contrast, Switzerland lowered the annual limit on overtime hours.
- As part of the policy to promote working-time flexibility, some countries have introduced *working-time credit systems*, sometimes referred to as *time savings accounts*. In these schemes, hours that exceed normal scheduled hours are saved in an account and can be used for reducing working hours at a future time for specified reasons (*e.g.* for child or family care or training), subject to the agreement of the employer. Such a system has been in place for a decade in Germany and the Netherlands, while time savings accounts have been introduced more recently in Belgium and France. The Belgian scheme is explicitly designed to facilitate life-course needs, such as a temporary shift to part-time work when that would facilitate meeting childcare needs, phased retirement, and sabbatical leaves.
- France, Japan and Korea legislated *reductions of standard weekly working time*, albeit from high levels in the cases of Japan and Korea. France stands out for having established 35 hours as the standard workweek, but has attempted to minimise the impact on unit labour costs by encouraging social partners to implement flexible working-time arrangements, including hours annualisation, through collective agreements.[82]

- France and Japan are also examples of countries which have relaxed regulations limiting work outside of the conventional workweek, by abolishing rules that prevented women from working at night. Germany and Switzerland are among the OECD countries recently expanding legal shop-opening hours.

Voluntary part-time. Over the past decade, there has been greater recognition of the role that voluntary part-time work can play in promoting labour market participation of under-represented groups (see OECD, 2003a, Chapter 3). This has led to a wide range of measures being enacted that are intended to make part-time employment either more attractive or more easily available to workers (see OECD, 2006a, Table W.3.3, Panel B):

- A growing number of OECD countries have enacted measures to *facilitate transitions between part-time and full-time status with the same employer*. Although details vary, these initiatives place an obligation on employers to attempt to accommodate requests from employees to change their working hours (*e.g.* to allow a full-time worker to switch to a part-time schedule for several years after a child is born and then return to full-time status). The Netherlands has been a pioneer in such measures and in 2001 enacted the Work and Care Act that strengthened such provisions, while providing particular support for a "three-quarters job model" for couples with young children, whereby each partner works three-quarters of a full-time schedule.
- Another widespread reform strategy is to *improve pay and benefits for part-time workers*. One approach is to enact equal-treatment laws requiring that pay and employment conditions for part-time workers be equivalent (on a pro rata basis) with those of comparable full-time workers. In many EU member states, such reforms have taken the form of an adaptation of national legislation and collective bargaining agreements to the 1997 EU Directive on the equal treatment of part-time workers and the promotion of voluntary part-time work.[83] Japan has introduced measures to improve the hiring and working conditions of part-time workers and extended social security coverage by adjusting minimum working-time thresholds. Australia also promoted a pro-rated system for pay and working conditions, while requiring reasonably predictable hours for part-time work. Canada has abandoned the previous threshold-based rules for access to unemployment benefits, opting for a pro-rata system for unemployment benefits based on the number of hours worked. Similarly, Korea extended eligibility for unemployment benefits to part-time workers, while still maintaining a threshold-based criterion, albeit slightly reducing it from 18 to 15 weekly working hours.
- *Demand-side measures* represent a third strategy for fostering voluntary part-time employment. Since 1999, Spain applies lower social security contributions to new part-time employment on permanent contracts. Similarly, Italy modified social security pension rules to encourage part-time employment, while Portugal expanded part-time employment in the public sector.

New evidence

Over the past decade, the historical decline of annual hours worked per worker has slowed in most countries and even reversed slightly in a few countries (as in Sweden and United States). Another striking development is the greater diversification of working hours: the share of employees working "modal" hours has fallen in a number of countries (OECD, 2006a, Table W.3.4).[84] Meanwhile, recent survey evidence shows greater variability in daily and weekly work schedules, representing a shift away from a fixed weekly

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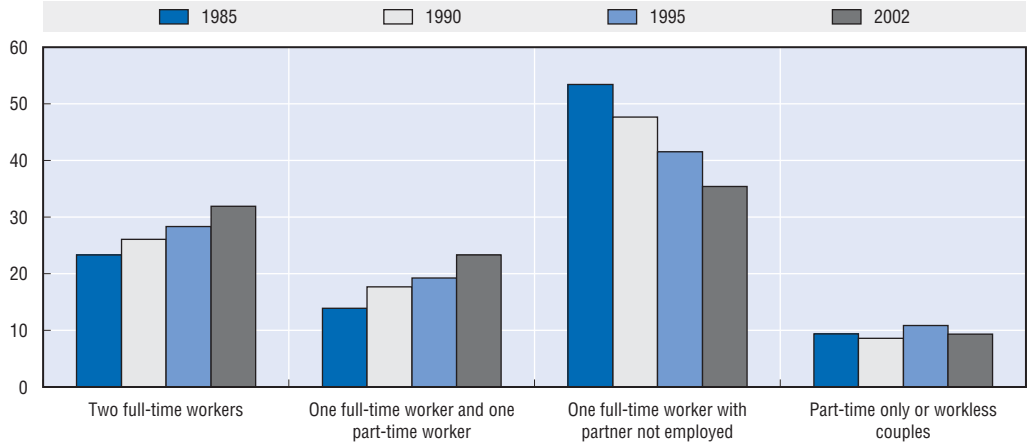
schedule with invariant starting and finishing times on each work day, although this evolution is more common among full-time male managers, professionals and technicians than other workforce groups. This growing diversification in work schedules may have supported employment of groups which need flexible arrangements, so as to help combine work and family life (*e.g.* persons who wish to combine work with study, young parents and older workers) – without such arrangements, they may not be able or willing to participate in the labour market. However, it is difficult to assess how large of a quantitative contribution the expansion of flexible working-time arrangements has made to raising overall employment during the past decade.

Since 1994, it has become clearer that there are cases where greater working-time flexibility has made it more difficult to reconcile work and family life. In effect, the types of flexibility that employers seek to enhance production efficiency sometimes create scheduling difficulties for workers. This suggests that it may be desirable to modify the Jobs Strategy by placing increased emphasis on assuring that working-time arrangements are also "family friendly".

Important for understanding possible conflicts between working hours and family life is the fact that the volume of hours worked in couple families with children has increased significantly. Since 1985, the share of dual-earner couples has grown steadily, including for families with pre-school children, as the share of mothers with young children working full-time or part-time has increased (Figure 3.11). Longer working hours can raise the living standards of families by raising family income. However, time pressures on families may have become more severe with greater participation of women in the labour market. A recent OECD regression analysis shows that significantly less conflict between work hours and family life is reported by workers having some control over their working time, for example regarding work-breaks or the scheduling of days-off (OECD, 2004a, Chapter 1).

Figure 3.11. **Work situation of couple families with a child under 6, 1985-2002**

Percentage share of couple families[a]



a) Weighted averages for the following EU countries: Austria, Belgium, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom.

Source: OECD (2004), *OECD Employment Outlook*, Chapter 1, Paris.

Statlink: *http://dx.doi.org/10.1787/432107516243*

Lessons

Consistent with the 1994 Jobs Strategy recommendations, many OECD countries have taken measures to promote flexible working-time arrangements and part-time work. The stated purpose of the measures has often been to: *i)* enable greater flexibility for employers to better match workers' work schedules with production operating needs; and *ii)* ensure greater choice for the workers regarding work schedules. This has probably helped promote job creation and labour force participation of certain groups. However, measures to help reconcile work with family life should be reinforced, including:

- Workers and employers should be able to negotiate working-time arrangements in a decentralised manner within a framework of general rules, set by working-time legislation or another binding framework, on minimum standards to safeguard workers' health and safety conditions.
- Government can play an active role in promoting "family-friendly" employment policies by facilitating access to child care and parental leave. The system of time savings accounts can be explored further in this regard.

3.5. Product market regulations

The impact of product market regulations on labour market outcomes: the key mechanisms

As part of the policies to promote better labour market performance, the 1994 Jobs Strategy recommended the removal of regulations that impede the entry and expansion of new firms, and that constrain product market competition in general. In addition to boosting productivity, strong competition in product markets can have a significant impact on labour market performance through several channels.[85] Increased competition as a result of product market reforms will boost average real wages via lower prices. The gain in real wages for workers in the reforming sectors may be attenuated somewhat if prior to reforms they contain a large rental element that is reduced as intensified competition lowers product market rents and thereby the scope for rent sharing. On average, though, real wages will unambiguously increase, and higher consumption wage will stimulate labour supply. At the same time, labour demand will increase with new entry and associated capital investment.

Furthermore, an increase in product market competition is likely to result in changes in the functioning of the labour market with repercussions for employment and unemployment. Stronger competition may harden the bargaining position of employers, as yielding to high wage demands cannot be compensated by higher prices to the same extent as before. On the other hand, more intense competition in product markets will reduce the bargaining strength of workers, as it increases the employment costs of a given rise in wages. Both effects would contribute to lowering the unemployment rate that is compatible with stable inflation. To the extent that the rental element in wages is diminished with stronger competition, this would also tend to reduce "wait unemployment" as it would become less attractive for unemployed workers to prolong their job search for employment opportunities in "high-wage" sectors.

While these effects will tend to reduce unemployment and boost employment in the long run, there could be significant short-term adjustment problems. This is because weak competition forces in product markets not only spill over into wages but also to productivity levels as rents are taken out as "quiet life" and "x-inefficiency". Under these circumstances, increased competition may result in a labour shake-out. This in turn may lead to an increase

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in joblessness and a drop in employment rates, both of which could be protracted when unemployment and related benefits are linked to past wages, including any rent components, thus making unemployment and other forms of inactivity financially attractive compared with wages that are no longer artificially boosted by rents.

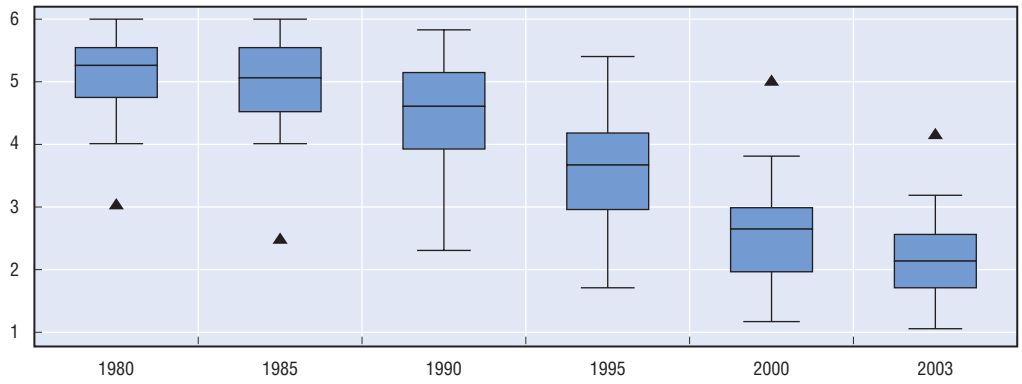
Competition-enhancing product market reforms: recent developments

Overall, product market regulation (PMR) has become less constraining for competition during the past two decades (Figure 3.12). Given different starting points and patterns of reform, cross-country differences in the stance of competition-restraining PMR[86] increased across the OECD in the 1980s and 1990s. From the late-1990s, however, the dispersion in policy stance has fallen, in part because such regulation in the euro area and former transition countries has moved towards that of the more liberal countries. Notwithstanding this convergence, however, competition-restraining PMR regulation in the OECD area is still characterised by significant differences across countries (Conway *et al.*, 2005). In 2003, the most liberal countries with regards to their PMR included Australia, Canada, Denmark, Iceland, New Zealand, the United Kingdom and the United States (Figure 3.13). At the other extreme, product market regulations were most restrictive in France, Greece, Italy, Mexico, Turkey and most eastern European countries.

Much of the strengthening of product market competition since 1998 has been driven by a reduction of state control under the form of easing or elimination of coercive forms of regulation, such as command-and-control measures and price controls, and less state interference in the operation of public or private business enterprises, such as direct control over business enterprises (Figure 3.14). Significant easing in all types of barriers to foreign trade and investment has also been recorded. In contrast, progress in removing legal impediments to new entry in sectors sheltered from competition has been limited and the extent of privatisation has been modest. Therefore, a "hard core" of competition-restraining regulations still persists in almost all countries, especially barriers to entrepreneurship. Additional measures to significantly strengthen competition in most

Figure 3.12. **Evolution and dispersion in regulatory environments, 1980-2003**[a]

The scale of the PMR indicator is 0-6 from least to most restrictive



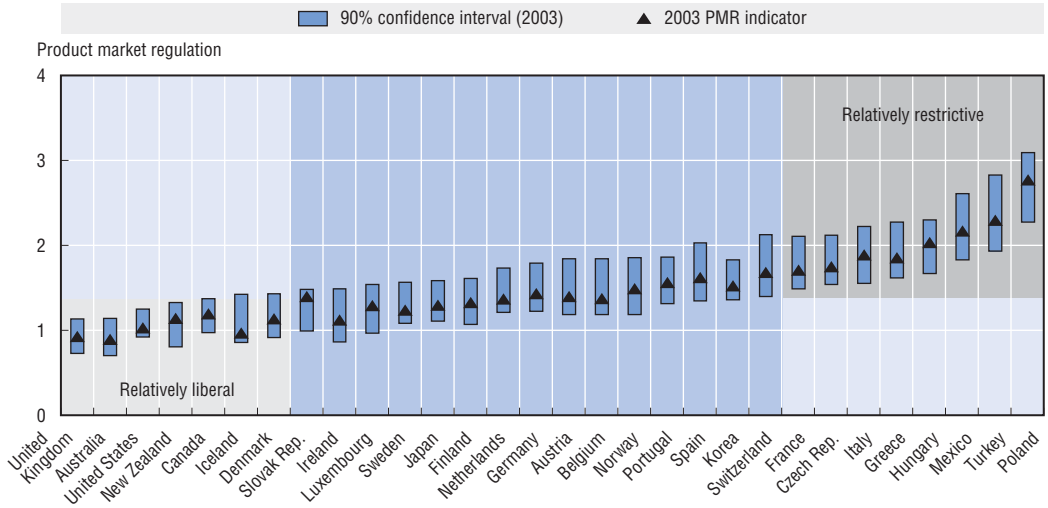
PMR: Product market regulation.

a) Box plot of the summary indicators of regulatory conditions in seven non-manufacturing sectors. The horizontal line in the middle of the box is the median value of the indicator across the 21 OECD countries for which these indicators exist. The edges of the box are the 2nd and 3rd quartiles of the cross country distribution. The two whiskers are the extreme values and the dots represent outliers (the United States in 1980 and 1985 and Greece in 2000 and 2003).

Source: OECD International Regulation database. Statlink: *http://dx.doi.org/10.1787/144838380211*

Figure 3.13. **Country groupings based on confidence intervals for the PMR indicators, 2003**[a, b]

At 90 percentage levels



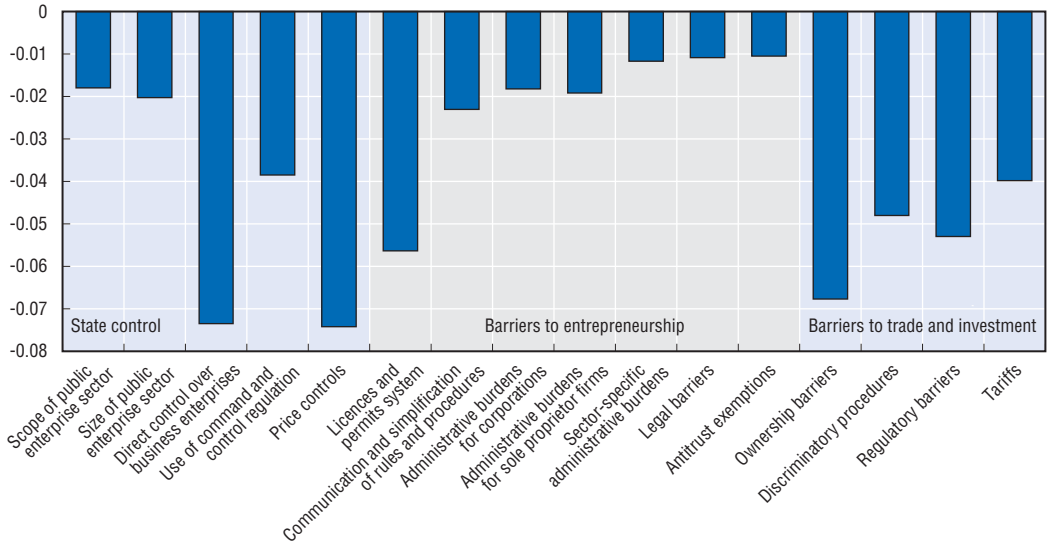
PMR: Product market regulation.

a) The confidence intervals are calculated using stochastic weights on the low-level indicators to generate a distribution of overall PMR indicators for each country. The 90 percentage confidence intervals are calculated from that distribution. Indicator values for the "relatively liberal" and "relatively restrictive" countries are significantly different at the 90 percentage level of confidence.

b) The scale of the indicators is 0-6 from least to most restrictive of competition.

Source: OECD (2005), *Economic Policy Reforms: Going for Growth*, Paris. Statlink: *http://dx.doi.org/10.1787/041331735118*

Figure 3.14. **Sources of changes in the OECD average PMR indicator, 1998-2003**[a]



PMR: Product market regulation.

a) Shows the contribution of each of the low-level (OECD average) PMR indicators to the change of the OECD-average overall PMR indicator.

Source: OECD (2005), *Economic Policy Reforms: Going for Growth*, Paris. Statlink: *http://dx.doi.org/10.1787/842221355752*

countries will accordingly have to involve reductions in regulatory and administrative opacity, administrative burdens on start-ups and statutory barriers to entry in certain sectors, and, in some countries, less state control.

Correlations between different aspects of competition-restraining PMR are apparent in the 2003 indicators. Domestic impediments to competition tend to be lower in countries that have lower barriers to foreign trade and investment, suggesting a link between a country's degree of openness and domestic policy reform. In addition, restrictive economic regulations still tend to be associated with burdensome administrative environments, and legal barriers frequently block new entry into sectors in which publicly-controlled companies operate. The stance of competition-restraining product market regulation also appears to be linked to the stance of employment protection legislation. More generally, countries which have undertaken labour market reforms recently had also deregulated their product markets beforehand. There are several potential reasons why labour and product market reforms are complementary (see Chapter 6).

New empirical analysis

In recent years, empirical studies have confirmed the negative impact of competition-restraining PMR on labour market outcomes. It is well-established that such regulations slow down the process of resource reallocation.[87] Combining indicators of product market regulation with measures of labour market regulations, Boeri *et al.* (2000) and Nicoletti *et al.* (2001) find cross-country evidence that anticompetitive product market regulations adversely affect non-agricultural employment rates of OECD countries. Using time-varying indicators of PMR, Nicoletti and Scarpetta (2005) find that product market reforms contribute to increasing non-agricultural employment rates.

The empirical analysis reported in Bassanini and Duval (2006) indicates that competition-restraining regulations have a significant negative impact on labour market performance. It suggests that an easing of such regulations by two standard deviations could reduce aggregate unemployment rates in an average OECD country by three-quarters of a percentage point. This magnitude of PMR reform is not exceptional with respect to historical experience. Indeed, it corresponds to the easing of product market regulations in the 1998-2003 period in the OECD area on average. However, additional cuts of this magnitude would imply that the degree of restriction embedded in regulations in the "average" OECD country be brought down to that of the least restrictive country at present (United Kingdom). As discussed in Chapter 4, empirical analysis suggests that stronger competition in the product market would increase employment rates of women but reduce those for people in the 55-to-64 age group. There is, however, little evidence that it affects employment rates of prime-age men and youth.

4. Lifelong learning and training policies

One of the broad policy recommendations contained in the 1994 Jobs Strategy was to upgrade workers' skills and competencies (OECD, 1994a). Policies to enhance human capital were seen as making an important contribution to higher economic growth and employment, while also helping to address concerns about poverty, low pay and inadequate opportunities for career advancement by fostering the creation of high-skill, high-wage jobs (see Chapter 5).[88] The detailed policies that were put forward to enhance human capital formation targeted potential problems at three stages of participation in lifelong learning: initial education, the transition from school to work and continuing vocational training (CVT) for adults. The analysis in this section is limited to the third of these stages,[89] for which the

detailed policy recommendations were to improve the incentives for enterprises and workers to invest in CVT by:

- Creating fiscal incentives to expand CVT, *e.g.* by implementing a training levy/grant scheme to stimulate enterprises to undertake more skill development or a system of "training credits" for adult workers.
- Expanding the availability of training leave.
- Encouraging changes in financial accounting and related business practices so as to make the economic long-term value of investments in skills more transparent.

Since 1994, OECD countries have accorded a high priority to enhancing lifelong learning policies, including adult education and training, and national experiences with different types of adult learning policies have generated new insights into what works well in practice and what does not (OECD, 2003a, c; OECD, 2005b). The economic rationale for training policy has also attracted sustained attention from researchers, who have clarified the nature of the market failures affecting CVT outcomes. Despite this progress, large cross-country differences in training policies and participation rates persist, as does considerable uncertainty about how best to foster a lifelong learning system that supports high employment levels and living standards, while also helping to address the concerns about employment insecurity and low-paid employment.

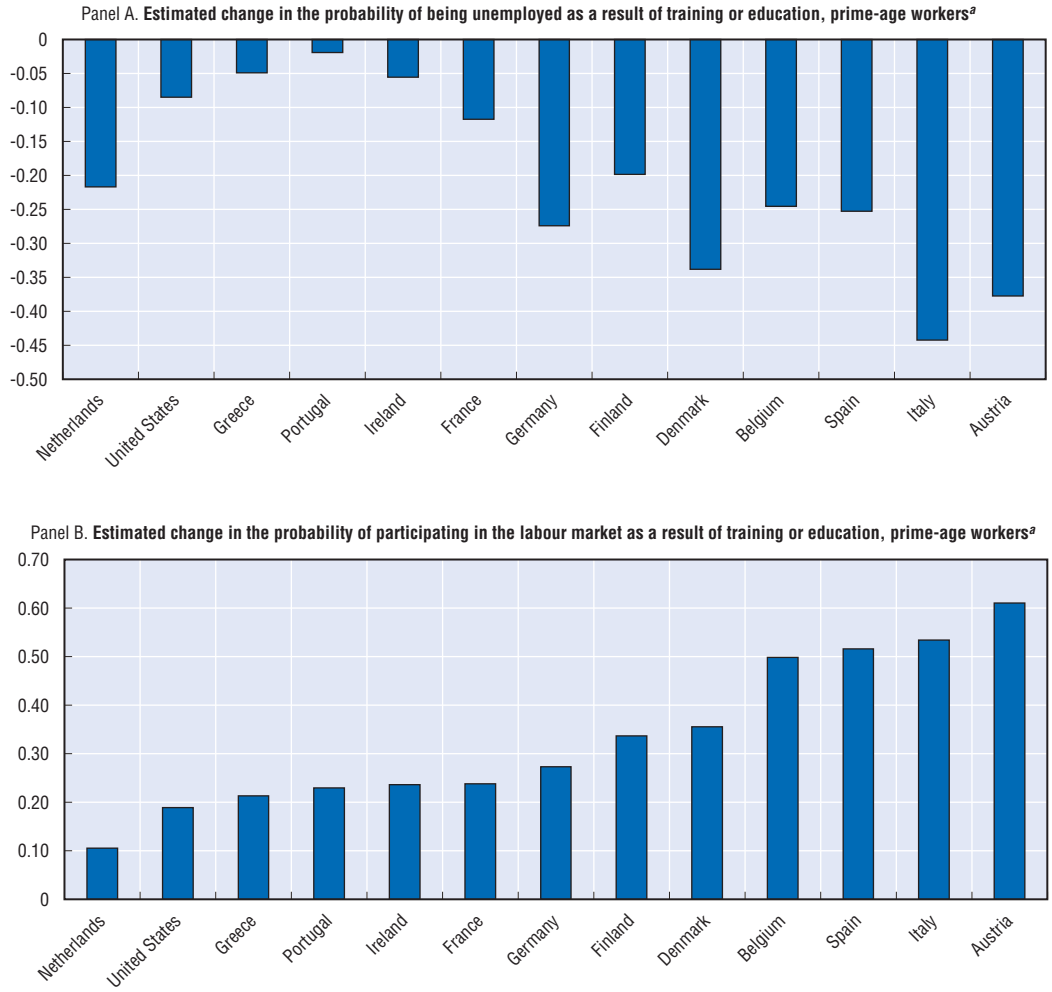
4.1. *The policy challenge*

The returns to adult education and training are potentially high

Workers who maintain and upgrade their competencies by undertaking training during their working life fare better in the labour market. A large empirical literature has documented that workers receiving CVT subsequently experience higher wage growth and that a significant part of this association reflects the causal impact of training on productivity and wages (see Leuven, 2004, for a survey of this literature). Trained workers also benefit from more secure employment prospects: although there is considerable variation across countries, on average, a 10% increase in the time spent by an adult on education or training is estimated to be associated with: *i)* an increase in the probability of being active of about 0.3 percentage point; and *ii)* a fall in the probability of being unemployed of almost 0.2 percentage point (Figure 3.15). One way that training enhances "employability" is that workers who receive training during their career are in better position in the event of lay-off, since they are more successful in searching for a new job.[90] Training received during fixed-term contracts also contributes to making temporary jobs a stepping stone towards open-ended contracts (OECD, 2004a, Chapter 4). These findings suggest that expanded access to training could play a significant role in reducing temporary-work and low-pay traps (see Section 2 of Chapter 5).

At the macro level, a vast amount of research has demonstrated that human capital investments make a large contribution to fostering economic growth and long-run improvements in living standards. Extending human resource development beyond the provision of formal education and vocational training *preceding* entry to the labour market is essential for at least two reasons: *i)* the slow renewal of the labour force through the entry of young qualified workers would not suffice to satisfy the demand for new skills resulting from technological and structural changes; and *ii)* as the workforce ages, there is a growing risk of older workers losing their current jobs and lacking the competencies to move into new jobs, because their skills have become outdated.[91]

Figure 3.15. **Impact of prior training on the probabilities of unemployment and participation**



a) Percentage point impact of a 10% increase in the number of years in which an average individual receives some education or training. Data refer to individuals aged 25-44 years.

Source: Update of OECD calculations made for OECD (2004), *OECD Employment Outlook*, Chapter 4, on the basis of the European Community Household Panel (ECHP), waves 1 to 7 (1994-2000) for the European countries and on the National Longitudinal Survey of Youth 1979 (NLSY79) for the United States (1992-98).

Statlink: *http://dx.doi.org/10.1787/602487788568*

Is the investment in adult education and training too low?

Despite the fact that there are clear private and social benefits from training, it is often claimed that investment in workers' skills is too low – and this, in turn, would justify government intervention. Although available evidence does not point conclusively to underinvestment in human capital, it may be that current incentive work against achieving appropriate levels of such investment:

- *Training and capital market imperfections* may be one factor. Workers may be unwilling to fund their training, even when the potential payoff is high, because its content and quality are difficult to specify in an enforceable contract. Moreover, since human capital cannot be used as collateral, it may also be difficult for individuals to finance training through borrowing – a barrier that may be particularly daunting for workers in low-paid or insecure jobs. This is probably why, in most OECD countries, firms pay for more than 70% of the

vocational training courses of their employees – despite the fact that most of this training appears to provide general, rather than firm-specific, skills and competencies (OECD, 2006a, Figure W.3.4).[92]

- *Market failures related to so-called "poaching"* may also cause firms to invest less in the human capital of their workers than would be socially optimal. This can occur when the training is general, since workers may be tempted to quit after being trained in order to accept better job offers. In such cases, future employers appropriate a part of the benefits of the training without having contributed to its costs, reducing the current employers' incentives to train.
- However, *employers may exercise some degree of market power over their trained personnel*, allowing them to implement pay scales that do not fully reflect the increase in productivity brought about by training. Any such "wage compression" would reinforce employers' incentives to train their workers, so long as labour turnover rates are not too high.

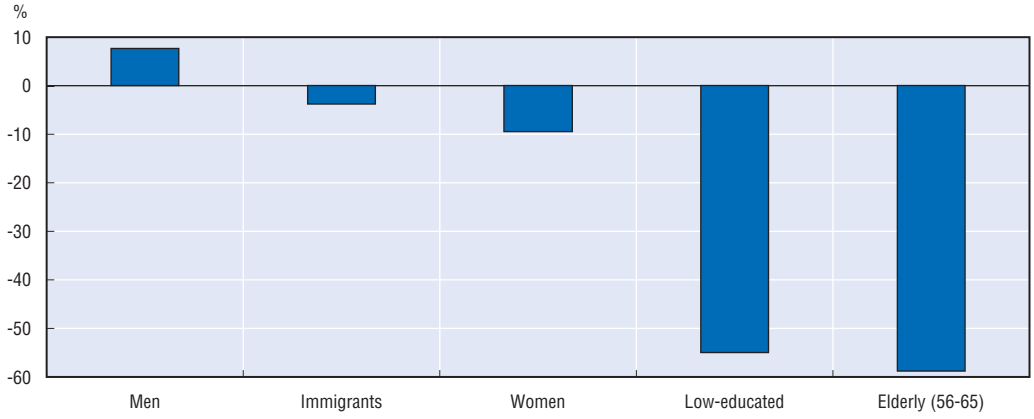
Training inequalities

Workforce groups with lower earnings and employment security also receive less training, thereby compounding their disadvantage. Gender differences in the volume of education and training are of the order of 15% on average (see Figure 3.16) – equivalent in size to the average gender wage gap (OECD, 2002, Chapter 2). Even more striking, older workers and individuals with less than upper secondary education receive less than 50% of the volume of training received by an average individual aged 26-65. The same occurs for workers in low-skilled occupations, in temporary jobs, in small firms or self-employed (OECD, 2005b, Chapter 1).

No inefficiency would be implied if these large inequalities in training investments reflect differences in the potential economic returns. Consistent with such an interpretation, the estimated impact of training on wage growth tends to be larger in the case of relatively young and well-educated employees, both high-training groups (OECD, 2004a, Chapter 4). However, the available evidence suggests a much more homogeneous impact of training on workers' employment prospects (Figure 3.17). Since much of the economic benefit from

Figure 3.16. **Differences in training for selected groups**

Percentage differences between average hours of education and training for selected groups and the average for all groups[a, b]

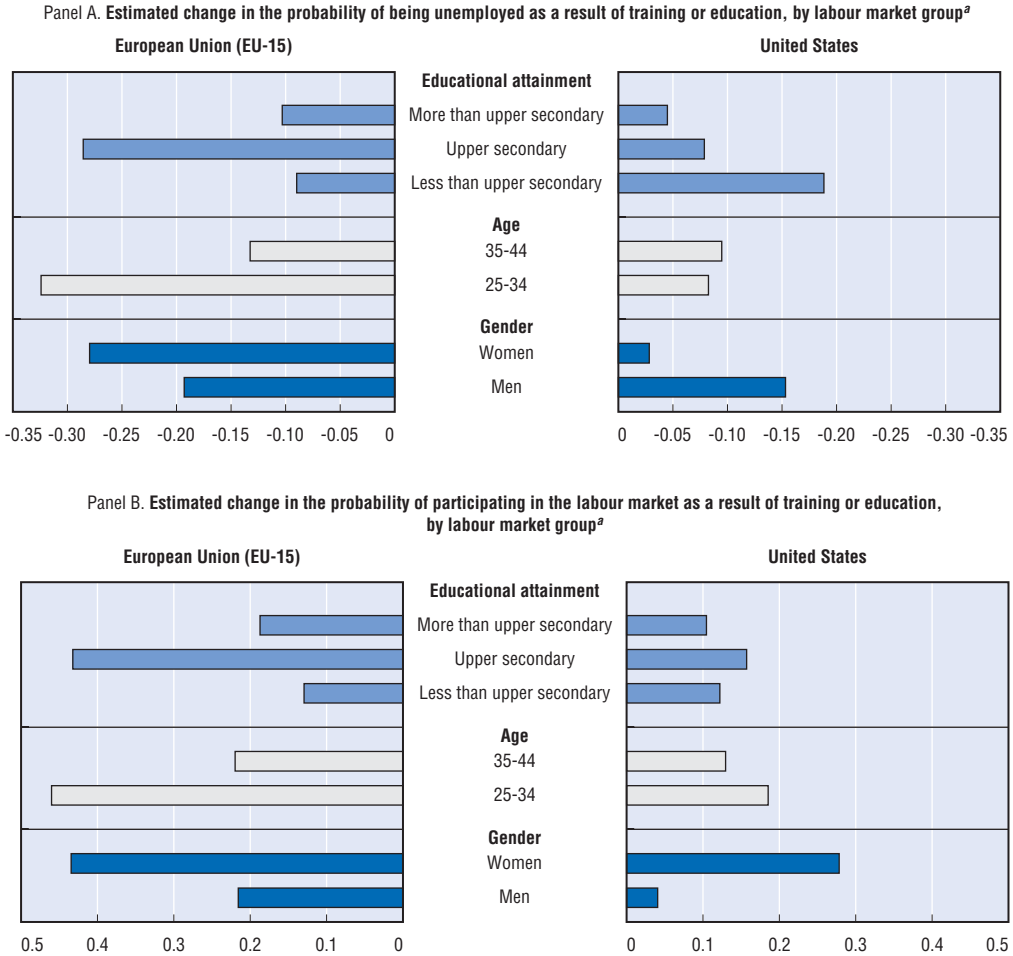


a) Persons aged 26 to 65, excluding those in full-time education or retired.
b) Weighted average for Australia, Belgium (Flanders only), Canada, the Czech Republic, Denmark, Finland, Hungary, Ireland, Italy, the Netherlands, New Zealand, Norway, Poland, Switzerland, the United Kingdom, and the United States.

Source: International Adult Literacy Survey.

Statlink: *http://dx.doi.org/10.1787/282510750537*

Figure 3.17. **Impact of training on the employment prospects of different labour market groups**



a) Percentage point impact of a 10% increase in the number of years in which an average individual receives some education or training. Data refer to individuals aged 25-44 years.

Source: Update of OECD calculations made for OECD (2004), *OECD Employment Outlook*, Chapter 4, on the basis of the European Community Household Panel (ECHP), waves 1 to 7 (1994-2000) for the European countries and on the National Longitudinal Survey of Youth 1979 (NLSY79) for the United States (1992-98).

Statlink: *http://dx.doi.org/10.1787/200427480640*

increased "employability" accrues on future jobs, these returns are likely to be discounted by employers when assessing possible training investments. This raises the possibility that policies to increase training for low training groups could be efficiency-enhancing in some cases. Equity goals might also be furthered by expanding training access for *e.g.* women or workers in low-paid or insecure jobs.

4.2. Implications for policy

How much, if at all, governments should seek to raise overall investments in training is a question that economic research has yet to answer clearly. Nonetheless, quite a bit can be said about the desirable characteristics of training policies, should a decision to intervene be taken. Four types of policies appear potentially useful for reinforcing workers' and employers' incentives to invest in socially valuable training, namely, measures to: *i)* make the training market more efficient; *ii)* increase financial incentives for firms to invest in training;

iii) increase financial incentives for workers to invest in training; and *iv)* encourage the co-operation of social partners in meeting training needs. All of these policy approaches can contribute to overcoming certain of the market failures discussed above. A second common advantage is that these are demand-side approaches which focus on increasing workers' and employers' demands for training, leaving training supply more or less free to adapt to increasing demand.[93] These four types of measures are discussed below.

Improving the functioning of the training market

One way of reducing the poaching problem is through contractual arrangements that provide greater assurance to employers considering training their workers that they will be able to recoup their investment. Examples of such contractual arrangements include *pay-back clauses* and *apprentice contracts*. Statutory or contractual pay-back clauses specify that a worker voluntarily leaving the firm, within a specified period after receiving education or training, has to reimburse at least part of the training costs incurred by the employer. In apprentice contracts, apprentices are paid less than their productivity during most of the period covered by the contract, but a recognised qualification is delivered at the end.

Practical considerations limit the diffusion of both of these approaches, but there are ways to foster their broader adoption where they are appropriate (OECD, 2003a, c):

- Workers may be justifiably reluctant to sign contracts with *pay-back clauses*, when the training involved does not lead to a clearly recognised qualification, since this would imply incurring an obligation in exchange for a service of uncertain value. Formal education courses are particularly suited to pay-back clauses because programme content and quality can be more easily assessed, but not all types of training have these characteristics. Beyond helping to define quality standards and improving information diffusion and guidance (see below), public policy can improve the diffusion of pay-back contracts by improving the legal framework for their application and creating incentives for their use.[94]
- *Apprenticeships* typically have been restricted to young labour market entrants. However, prime-age and older workers may also benefit from in-depth occupational training that would allow them to change careers. Governments can thus foster greater diffusion of apprenticeships by removing age barriers due to *e.g.* age differences in government subsidies.[95] However, the short-term sacrifice of earnings associated with apprenticeships will still tend to limit the participation of mid-career workers in these programmes.[96] To be successful, apprentice contracts should lead to a clearly recognised qualification.

Training outcomes can also be improved by providing workers with better information about the content and value of training courses (OECD, 2005b, Chapter 2). This would reduce uncertainty about the expected returns to different training options – thus reducing information imperfections in the training market. Public interventions may be able to increase actual and perceived training benefits:

- *Quality information and guidance systems* have an important role to play in stimulating the demand for adult learning and in facilitating a better match between workers' demands for training and the offerings of training providers. Indeed, workers often have limited information about the likely benefits from training, are unaware of the variety and quality of training services that are available to them and cannot gauge the uncertainty of the returns from the investment. Since personal guidance is costly, a two-tier approach may be desirable, offering free access to basic information plus fee-paying personal guidance services on an optional basis, with public support in the case of low-income individuals.

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- *Regulation of the quality of training suppliers* may be useful, particularly in countries where the provision of adult learning is mainly private. Initiatives to assure training quality standards, such as accreditation of institutions in which vouchers can be spent, are a natural complement to co-financing policies, since there is considerable evidence that low-quality training providers can be a problem for these schemes.[97]
- *Measures fostering the portability of skills and transparency in the signalling of learning outcomes* can increase the individual and social benefits from training, by helping trained workers to more easily locate jobs that make productive use of – and more fully compensate – their new skills. Several OECD countries have introduced standardised competence-based qualification systems, in which workers are allowed to take individual skill tests independently of the way skills are acquired.

The (first-best) strategy of correcting imperfections in the training market appears promising, but it can only go so far since many of these imperfections result from informational and organisational difficulties that cannot be fully overcome.[98] This suggest that second-best training policies – that is, policies to induce optimal investment levels given the persistence of market imperfections – may also have a role to play. Such measures include providing financial incentives to firms and workers to invest in training, as well as fostering co-operation of the social partners in the provision of CVT. The next three sub-sections discuss these types of measures.

Financial incentives for firms

Tax subsidies or *grant schemes* for firms have the potential to raise employers' investments in training, but such schemes should be carefully designed in order to avoid waste of public resources and also ensure that they reach their targets. What counts for employer's decisions to invest in training is the difference between their marginal expected benefits and marginal training costs. Thus, a co-financing policy should take the form of matched contributions that do not cover total costs.[99] In addition, co-financing policies should reduce *marginal* private training costs *for every subsidy recipient*:

- *Tax deductions*. The Austrian corporate tax system provides an example of how these efficiency conditions can be implemented. Under this scheme, firms can deduct 120% of the cost of training from turnover when determining taxable income, implying a reduction of 20% in the marginal costs of training. By contrast, a fixed deduction (or other lump-sum subsidy) which does not change marginal costs will not modify investment decisions and will, at best, pay for training that would have been done anyway. Tax deductions for spending on training also appear to be problematic when the aim is to target specific workforce groups with low training rates, because there is a strong risk of inducing inefficient substitution, in terms of who receives training, between groups that do and do not qualify for this benefit.[100]
- *Train-or-pay levy schemes*. Train-or-pay schemes, such as those in France and the Quebec province (Canada), typically do not fulfil the conditions outlined above for creating efficient investment incentives.[101] Experience suggest that these types of schemes may create high deadweight and that much of the increase in training that results benefits workforce groups who already receive above-average training, but that providing worker representatives with an active role in developing and implementing company training plans may mitigate these problems (Ok and Tergeist, 2003).

- *Levy/grant schemes.* Levies which are directed to a common fund to which firms can apply for training grants provide another model for inducing higher employer investment in training. Training grants are disbursed on a case-by-case basis which provides greater potential for avoiding deadweight while increasing training access for *e.g.* low-skilled and older workers, or employees of small firms.[102] Japan and Spain provide examples of national levy/grant schemes, while sectoral schemes operate in France and the Netherlands, and both national and sectoral schemes are present in Belgium and Korea (OECD, 2005b, Chapter 3).

There are few *a priori* grounds for preferring tax deductions to grant schemes or *vice versa*. Instead, practical considerations will dictate the choice of one approach rather than the other. Tax-based schemes have the advantage of building on existing institutional arrangements for taxation, allowing them to be applied with limited implementation costs. However, grants awarded through a case-by-case analysis of training plans have a greater capacity to avoid financing training that would be undertaken anyway in the absence of the subsidy ("deadweight"), at least in theory. In practice, exploiting the potential of grants requires information and competences that are often not sufficiently available within national administrations. In addition, their administrative costs are high and, often, their lack of transparency leaves them open to abuses.

Financial incentives and training leave for workers

Another policy strategy is to reduce the financial and other barriers to training that confront workers. Surveys of workers confirm the importance of financial barriers to training, but also underlies the importance of time constraints (OECD, 2006a, Figure W.3.5). Indeed, the two reasons cited most frequently by workers for not taking additional training are "too busy/lack of time" and "too busy at work", while significant numbers also cited "family responsibility" and "course offered at inconvenient time". Lack of access to the desired type of training content (or language of instruction) is also an obstacle for workers seeking more training.

To the extent that workers do not invest sufficiently in training because of borrowing constraints, public authorities can put in place schemes like loan guarantees, subsidisation of interest payments and/or lending by public bodies with, possibly, income-contingent repayments (OECD, 2003a, Chapter 5 and 2005b, Chapter 3). In principle, loans can be neutral for the public budget, thereby making it easier to develop large-scale programmes. However, except when these schemes are intended to finance higher education of youth and/or are combined with training leave, they have proved to be of only limited appeal for adults, who tend to be more reluctant than younger persons to finance uncertain investments in human capital through loans – perhaps, due to existing debts (*e.g.* home mortgages), family responsibilities, or shorter payback periods in the case of older workers. Low take-up is likely to be a particular problem when the aim is to raise training investments for groups with low training rates, such as low educated and older workers.

When the policy goal is to increase training access for groups currently receiving little continuing vocational training, *individual training subsidies* frequently may be an appropriate instrument (OECD, 2005b, Chapter 3). In the absence of rigorous evaluations, it is difficult to distinguish *a priori* between different types of schemes (*e.g.* vouchers, individual learning accounts and grants from specific funds). However, subsidy schemes are more likely to be efficient when they take the form of *matched* contributions that reduce the marginal costs of training for all subsidy recipients.[103] For instance, the US and Canadian individual learning accounts typically imply a government subsidy smaller than 100% (often a 3 to 1 match,

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targeted on low-income/low-wealth households) of the amount saved by the individual for personal development purposes, including training (OECD, 2003a, Chapter 5). Vouchers are less likely to be consistent with these principles, although they might be justified when targeted on disadvantaged groups.[104]

Meeting the training needs of employed individuals may frequently require them to stop working for a considerable period of time, implying that the opportunity cost of training might be high in terms of both time and foregone earnings. For this reason, many OECD countries have introduced various types of statutory or contractual *training leave* schemes that guarantee employees the right to return to their jobs after completing the training course, as well as institutional arrangements facilitating access to training and education on a part-time basis (Table 3.14).[105] Reinstatement rights help to reduce the risk element of human capital investment borne by the worker and imply some cost-sharing with employers (who need to either replace the worker or make do without them on a temporary basis). Nonetheless, very few workers take training leave in most countries (OECD, 2003a, Chapter 5), perhaps because *foregone income* is also an important a barrier to individual investments in training (OECD, 2003c). Government co-financing can address this issue by offering training allowances,[106] as can institutional arrangements that foster cost-sharing among employers and employees (*e.g.* pay-back clauses, apprenticeships, company-based individual learning accounts, and time-accounts).

Role of social partners

The involvement of employee representatives and the social partners in the organisation and provision of CVT can make an important contribution to improving the performance of national training systems by mitigating the problems discussed above, although the form this co-operation should take will vary with national labour relations practices and institutions (Ok and Tergeist, 2003). As early as 1991, the social partners at the OECD level (the Business and Industry Advisory Council and the Trade Union Advisory Council) published a joint statement on education and training, which identifies the promotion of lifelong learning as an area where there is a broad convergence of interests between employer and employee, but also some substantial differences concerning the best approaches to adopt. This dialog has continued in international, national and sub-national *fora*, while numerous concrete instances of co-operation – sometimes in a tripartite context – have been initiated or further developed.

Joint governance of training funds supported by national or sectoral training levies provides an important example of collaboration between the social partners in a number of OECD countries. For example, worker representatives are typically involved in the preparation of company training plans that are submitted for possible funding via training grants and, in many cases, the disbursement of grants is also jointly managed by representatives of employers and employees (OECD, 2005b, Chapter 3). Training issues have also been increasingly addressed in collective bargaining. Indeed, in a number of countries sectoral training funds (*e.g.* in Denmark, Germany, Italy and the Netherlands) or company-level funds (*e.g.* the UAW-Ford National Joint Training Fund in the United States) have been established through collective bargaining.[107] In a number of European countries, work councils also play an important role in the development and implementation of company training strategies. Finland provides an example of a country where work councils have actively collaborated in the organisation of enterprise-based training (Ok and Tergeist, 2003).

Table 3.14. **Education and training leave schemes in selected OECD countries**

	Eligibility	Type of financial support	Who covers the costs?	Number of beneficiaries (% of total employment)
Austria	Three years with same employer. Employer agreement. For any training of more than 16 hours per week.	A daily allowance of EUR 14.5 for a period of 3-12 months.	Austrian Employment Service.	2 263 in 2002 (0.1%).
Denmark	Employer agreement/ self-employed: *General adult education:* > 26 weeks in present job. *Tertiary level:* > three years' work experience.	Paid to employees or to employer if the latter pays full wages during training leave. Maximum unemployment benefit (9/2004): EUR 423 per week full-time attendance. Maximum duration of SVU: 80 weeks (full-time equivalent) at basic education level. 1-52 weeks (full-time study) within a five-year period at tertiary level. Vocational (VEU): unlimited time.	State budget. Employers contribute towards VEU allowance via training levies (Employers' Reimbursement Scheme).	SVU: 14 000 or 0.61% of workforce aged 25-59 in 2002. VEU: 9% of workforce aged 20-70 (based on transactions, not beneficiaries as these may participate several times in a year).
Finland	Employees with a work history of over 10 years.	EUR 440 per month plus an earnings-related amount covering 15-20% of the last monthly wage up to one year.	Education and training insurance.	5 236 in 2002 (0.2%).[a]
Germany	Specified in collective bargaining agreements and *Länder* legislation.	Full wage costs.		1% to 2% annually.
Korea	Employees with work history > one year.	1/3 of the wage costs and part of direct costs. Occupational training of over 30 days and 120 hours.	Employment insurance.	7 756 in 2000 (0.04%).
Netherlands	Specified in collective bargaining agreements.	Full wage costs.	Sectoral training funds determined in collective agreements paid for by employees and employers.	n.a.
Norway	Those with a work history of over three years and with the current employer for the past two years.	NOK 80 000 per year: 60% loan, 40% converted from loan to grant upon passing examination. < 50% of beneficiaries of education leave (formal education) received full pay, 20% received reduced pay.	State Education Loan Fund for basic educational attainment.	17 000-18 000 employees (0.8% of employed) exercised their right to take full education leave in 2003.
Poland	Workers directed by the employer to a school or training.	At secondary level: coverage of wage costs up to five hours and six working days before the final examination. At tertiary level: coverage of wage costs up to 28 days of training leave; refund of travel costs, material and tuition fees.	Training Fund: enterprises, which establish the training fund, have the right to receive financial aid for training from state budget resources.	n.a.
Spain	Workers who have been employed by the same firm for at least one year.	Full forgone wages up to 200 working hours.	Social partners' mandatory contribution to the Tripartite Foundation.	4 731 in 1999 1 394 in 2002 (0.01%).[b]
Sweden	Workers employed for at least six months or with a work history of over 12 months during the last two years.	Grants and loans of SEK 33 880 for 20 weeks of full-time studies; a supplementary loan for workers > 25 if the income during the 12 months immediately preceding studies has been above a certain threshold.	Study allowance by the government.	0.7% in 2002.

n.a.: Not available.

a) The figure refers to the number of employees who have taken alternation leave, of whom only roughly 17% indicate studying was the major reason.

b) The figure refers to the number of individual training permits approved by the Tripartite Foundation.

Source: OECD (2005), *Promoting Adult Learning*, Paris. Statlink: *http://dx.doi.org/10.1787/628048134147*

Rigorous evaluation evidence is lacking concerning the relative effectiveness of these different forms of collaboration between social partners. Accordingly, it is not possible to draw any firm conclusions concerning which approaches work best in any given national

context. However, it does appear that the involvement of worker representatives in CVT tends to be associated with a shift toward more general forms of training, as well as more equitable participation in training across the work force (Ok and Tergeist, 2003).

Lessons

Recent experience has confirmed the importance of human capital investments for achieving strong economic growth and mitigating poverty and inequality. Although it is clear that continuing training for adult workers is an important component of an effective lifelong learning system, considerable uncertainty persists about the level and mix of training that would be socially optimal. Nonetheless, considerable progress has been made in identifying effective policy strategies for raising the overall level of enterprise-based training or improving training access for underserved groups (*e.g.* less-skilled or older workers) when these are adopted as policy goals:

- A mixed, demand-driven training strategy appears to be the best approach. Mixed, in the sense that measures to improve the functioning of the training and capital markets should be combined with government co-financing to increase firms' and workers' financial incentives to invest in training.
- Among the strategies for improving the functioning of training markets are developing contracting forms, such as pay-back clauses and clearer credentialing of new competencies acquired through either formal training or work experience.
- So as to minimise deadweight and low-productivity training, government co-financing of training investments by employers and employees should take the form of matched contributions that do not cover total costs and, as much as possible, reduce marginal training costs for every subsidy recipient. When training grants are offered on a case-by-case basis, as in levy/grant schemes, active involvement of social partners can contribute to their efficient operation where this is consistent with national labour relations practices.
- A high priority should be placed upon collecting rigorous evaluation evidence concerning the effectiveness of different policy approaches for enhancing economically and socially productive forms of lifelong learning.

Notes

1. Of the ten main policy areas highlighted in the 1994 OECD Jobs Strategy (see Chapter 1), this chapter discusses policies related to planks one (macroeconomic policy), three (working-time flexibility), five (wages and labour costs), six (employment protection), seven (active labour market programmes), eight (improve labour force skills and competences); nine (unemployment and related benefit systems) and ten (product market regulation). In some instances, policy issues that were grouped under a single plank in 1994 are discussed separately in this report. For example, the analysis of early retirement issues was placed under the heading of working-time flexibility in 1994, but is discussed separately in Chapter 4, as part of a broader discussion of expanding employment opportunities for older workers. Core working-time issues (*e.g.* the length of the work week and mandatory paid leave) are analysed in Sub-section 3.4.
2. By contrast, there appear to be fewer robust associations between these factors and employment rates.
3. That is, additional types of evidence provide a check of whether it is valid to interpret the empirical associations highlighted by the macro-econometric estimates as reflecting the causal impacts of policies and institutions on labour market performance. Baker *et al.* (2005) argue that many of the results obtained by earlier studies using panel regression models based on aggregate data are not robust and provide an unreliable basis for making policy choices. This judgement is arguably too categorical, but policy choices definitely should be informed by a diverse range of evidence.

Furthermore, it should be borne in mind that alternative sources of information also have limitations. For example, it is often difficult to obtain reliable estimates of policy effects using micro-econometric techniques because estimates based on observable variations in "treatments" are frequently subject to endogeneity bias (*e.g.* due to selection effects). Considerable progress has been made in obtaining more reliable estimates in such cases (Heckman and Vytlacil, 2004), but greater internal validity is often achieved at the price of reduced external validity (*i.e.* results that are less general). Moffitt (2004) surveys these issues and concludes that the best way forward is to consider a wide range of types of evidence, as is done in this report.

4. A recent OECD study on the sources of economic growth has confirmed empirically the importance of macroeconomic policy settings – in particular, as concerns inflation and price stability – for strong growth performance (OECD, 2003b).

5. On the other hand, a lower cost of capital may lead to some capital-labour substitution, though this is unlikely to completely offset the positive output effect.

6. Good structural policies enhance the resilience of the economy to adverse macroeconomic shocks, making it easier for macroeconomic policy to stabilise the economy (see Section 1 of Chapter 6).

7. The 1994 Jobs Strategy recommendations for reforming the social protection system for job losers and other out-of-work persons were organised around two themes (OECD, 1994a). A first theme was the need to reform unemployment and related benefits systems so as to provide financial incentives for rapid re-employment. Much of the concern here centred on assuring that benefit payments – and their interaction with the tax system – did not create situations in which accepting a job would result in little or no increase in disposable income, a so-called "unemployment trap". These issues are analysed in Sub-sections 2.1 and 2.2 below. The second theme was that active labour market programmes, such as job-search assistance and training programmes for the unemployed, should be expanded and their effectiveness enhanced. These issues are analysed in Sub-sections 2.3 and 2.4. The more detailed policy recommendations grouped under these two headings made it clear, however, that these two broad areas of reforms were viewed as being closely related to each other, a view that is also adopted here.

8. When social ministers of OECD countries met in the Spring of 2005, they endorsed an "active social policy agenda", one component of which was a concerted effort to encourage greater employment and economic self-sufficiency among beneficiaries of social protection benefits (OECD, 2005d).

9. Furthermore, benefits need to be financed by taxes which in turn may have a negative impact on employment (see Sub-section 3.2).

10. The introduction of employment-conditional transfers and tax credits in some countries amounted to a lowering of the net replacement rate (see Sub-section 2.2).

11. The French and US wage insurance schemes limit payment to a maximum of two years, while the Germany and US schemes limit eligibility to job losers (trade-displaced workers in the United States) aged 50 years and older.

12. See Figure W.3.1 in OECD (2006a) for the evolution since 1961 of this indicator, which is an average of estimated gross replacement rates over the course of a five-year spell of unemployment for a number of different family types and earnings levels. Accordingly, it reflects both replacement rates and benefit duration. Modest reductions during the past decade occurred in several OECD countries, but gross replacement rates have been quite stable in the majority of countries and even rose quite strongly in several.

13. The political economy of reform is discussed in Chapter 6 of this report.

14. Krueger and Meyer (2002) argue that the more recent literature provides much more reliable estimates of the causal impact of unemployment benefits on labour supply than earlier studies, because better statistical strategies have been used to isolate exogenous variations in individual entitlements.

15. Fredriksson and Holmlund (2005) develop a theoretical model of optimal unemployment insurance design and conclude that a system of job-search monitoring, enforced by benefit sanctions, can improve efficiency by allowing more complete income protection for job losers, while limiting the moral hazard associated with this form of social insurance. They also conclude that sanctions outperform limited benefit duration and workfare as a tool for reducing the labour supply distortions from unemployment benefits. However, this is a new area of research and it is difficult to assess the generality of this result.

16. Similarly, a recent OECD study of policies to meet the structural adjustment challenge resulting from rapid technological change and globalisation emphasises the role of an adequate unemployment benefits system for lowering the adjustment costs borne by displaced workers and maintaining political support for trade and investment liberalisation (OECD, 2005c).

17. Indeed, overly strict legislation may have the paradoxical effect of reducing the enforcement of work availability, since case workers may be reluctant to apply sanctions which they view as being unreasonably harsh.

18. See Blanchard and Tirole (2003, 2004), Cahuc and Zylberberg (2005) and Fath and Fuest (2005).

19. This is achieved, in part, by inducing a reallocation of labour from high-turnover firms to employers offering more stable jobs (Andersen and Meyer, 1993, 1994, 2000; Topel, 1983). The effect of experience-rating in lowering unemployment also appears to be strongest when labour market conditions are weakest (Card and Levine, 1994).

20. Other fiscal measures, such as re-employment bonuses or in-work benefits, can play a supplementary role in reinforcing the financial incentives to become re-employed. These types of measures are analysed in Sub-section 2.2, as part of a more general discussion of policies to make work pay.

21. The METR is defined as $(1 - \Delta ne/\Delta ge)$ where Δne is equal to the change in net earnings and Δge is the change in gross earnings experienced by the household. Note that the METR concept treats reductions in income-tested benefits, as earnings rise, as a tax on earnings, while in-work benefits are treated as negative taxes (in cases where higher earnings result in larger in-work benefits). Since 2001, the OECD has constructed METR measures for a number of different family types and labour market transitions (see OECD, 2004d; and Carone *et al.*, 2004).

22. The METRs in Figure 3.3, Panel A reflect the maximum initial entitlements available to job losers at the specified wage (expressed as a percentage of the average production worker wage). In most countries, these METRs tend to be higher for low-paid workers due to the progressivity built into the schedule for unemployment benefits. Comparing the left and right-side charts also illustrates how METRs vary with family characteristics that affect tax liabilities and benefit entitlements (*e.g.* the number of children or the presence of a spouse and whether that spouse is employed).

23. The main exception is single parents in Ireland, due to its in-work benefits scheme which is particularly generous to the lowest earners. Earnings losses upon re-employment are common for older and more experienced job losers (OECD, 2005a, Chapter 1).

24. Panel C of Figure 3.3 illustrates only one of many potential inactivity traps, since the financial incentives to work generally will vary according to the types of "inactivity" benefits a given individual receives. For example, persons qualifying for disability or early retirement benefits appear to face very high METRs in some countries (OECD, 2003a, 2004d).

25. Evers *et al.* (2005) and Immervoll *et al.* (2006) summarise the empirical literature on labour supply and conclude that most of the response to changes in wages net of taxes occurs along the extensive margin (*i.e.* participation) rather than the intensive margin (*i.e.* hours of work).

26. Typically, the in-work benefit varies with earnings varies with earnings as follows: *i)* no in-work benefit is paid until hours exceed some minimal threshold (which can be set at zero); *ii)* the benefit then increases proportionately with earnings until a maximum level is reached; and *iii)* benefits are progressively clawed back as earnings rise above a second threshold. Since in-work benefits have to be financed by taxes, they may also imply an increase in METRs and a potential disincentive to labour supply above the earnings level at which the entire benefit has been clawed back.

27. If raising the incomes of the working poor is an important policy goal, then a different approach to benefit targeting would obviously be desirable.

28. With time limits, there is a risk that work becomes less attractive than unemployment when in-work benefits are phased out. A potential offset to this danger is that the job experience acquired, while the benefit is paid, will have improved the workers' employment prospects sufficiently to encourage them to continue working.

29. Fuller discussions of childcare and minimum wages can be found in Sub-section 1.1 of Chapter 4 and Sub-section 3.1 of this chapter, respectively.

30. The pitfalls of emphasising spending levels, *per se*, were highlighted by the disappointing results associated with the very large increase in ALMP spending that occurred in Sweden in the first half of the 1990s (Calmfors *et al.*, 2001), as well as sometimes disappointing evaluation results for specific active measures in a considerable number of countries.

31. This re-allocation between different types of spending within total subsidised employment is consistent with the results from programme evaluation studies, which tend to conclude that direct job creation is a poor investment because it rarely leads to unsubsidised jobs (Martin and Grubb, 2001).

32. The inclusion of ALMP spending as an independent variable in cross-country panel models is likely to create simultaneity bias in the estimated parameters, because this variable is highly endogenous (*e.g.* ALMP spending per unemployed person tends to fall in a cyclical downturn, as unemployment rises). Various approaches have been used in the literature to "instrument" this variable, but it is difficult to verify how successfully simultaneity bias has been eliminated. In light of this difficulty, several of the studies reviewed in Table 3.5 only included interaction terms between average ALMP spending over the entire sample period and one or more time-varying variables.

33. Recent surveys of the evaluation literature include Heckman *et al.* (1999), Martin and Grubb (2001), Kluve and Schmidt (2001), Betcherman *et al.* (2004) and Kluve (2006).

34. One difficulty with these measures is that they often entail large dead-weight losses (subsidised jobs are created that would have been created even without the subsidy) and substitution effects (workers who qualify for a subsidy replace others who do not).

35. Micro-evaluation studies often have short post-programme observation windows and fail to capture the effect of ALMPs on post-programme job attachment. This is especially an issue for programmes that aim at increasing job-match quality, such as those with some training content (Boone and van Ours, 2004). These programmes tend to fare better the longer the observation window. Typically micro-evaluations also take no account of how the prospect of mandatory participation in intensive programmes may motivate some benefit recipients to intensify their job search.

36. To some extent, this was a re-emergence, since a close integration between the benefit administration and ALMPs was emphasised in a number of countries in the late 1960s and 1970s, only to lose favour in later years (OECD, 2002, Chapter 4).

37. Indefinite duration benefits for the unemployed typically take the form of categorical social assistance benefits, which become available (subject to an income test) only after entitlements to unemployment insurance and for unemployment assistance have been exhausted.

38. For example, outcomes should not be measured only in terms of job placements, because employment services colluding with employers can increase reported placements by placing the same person repeatedly into the same job.

39. Statistical statements about non-employment benefits – defined as social-protection benefits that are not conditional on availability for work – are somewhat uncertain, because OECD databases remain incomplete (OECD, 2003a, Chapter 4). Another source of uncertainty is that many countries have a large lone-parent or non-categorical social assistance benefit (such as the RMI in France and AFDC/TANF in the United States) which is conditional on availability for work for some recipients but not others, and thus is partly an "unemployment" and partly a "non-employment" benefit.

40. These estimates are expressed in full-time equivalent persons using the methodology first developed by the Dutch Ministry of Social Affairs, which was subsequently revised and augmented by the OECD. A fuller explanation of data sources, methods and results can be found in Chapter 4 of OECD (2003a). Carcillo and Grubb (2006) analyse more recent trends in expenditures and case loads for some of the major benefit types, but do not estimate overall benefit recipiency.

41. This discussion draws upon Carcillo and Grubb (2006) who analyse these questions in much greater detail.

42. Non-employment benefits address three main types of "social risk" that can make it difficult or undesirable to require a person to work: incapacity (sickness or disability), care responsibilities (care for children or in some cases other relatives) and early retirement (benefits paid only to older individuals of working age). National trends are varied, but on average recipiency rates for early retirement and care-responsibility benefits may have peaked in recent years whereas recipiency rates for incapacity benefits often increased further after 2000.

43. In several EU countries, there are no partial invalidity benefits, even though invalidity is clearly a matter of degree (European Commission, 2002a).

44. In the Netherlands, a retesting launched in 1994 and completed in 1998 led to reclassification of disability benefit entitlements – in some cases, benefit loss – in 30% of all cases. In October 2004, a large-scale obligatory re-examination of people below the age of 50 receiving disability benefit

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was started. In early results, large numbers of employees were reassessed as having work capacity greater than had originally been assessed (*http://dlapiperglobal.admin.hubbardone.com/files/upload/NewsletterApril2005.pdf*).

45. "Rehabilitation" benefits or allowances are a distinct benefit when they are financed under employer liability for work injuries and illness (workers' compensation schemes). In some other cases, rehabilitation benefits may only be the name given to the general sickness or disability benefit. In Norway and Poland a benefit called rehabilitation allowance (rather than a permanent disability pension) is paid after exhaustion of short-term sickness benefits if recovery is still likely (see summaries of benefit systems at *http://www.ssa.gov/policy/docs/progdesc/ssptw/andeuropa.eu.int/comm/employment_social/missoc2001/missoc_194_en.htm*).

46. A UK evaluation (Kirby and Riley, 2004) of pilot implementations of "work-focused interviews" estimated that they had no employment impact. But they have increased take-up of another programme, the New Deal for Lone Parents (Evans *et al.*, 2003) and appear to play a role in the Pathways to Work programme for short-term incapacity, which has a considerable impact (European Commission, 2002b).

47. Just as the supply-side policies discussed in Sub-section 3.2 have some relevance for reinforcing labour demand, so too the demand-side policies discussed in this section may help to reinforce labour supply. An example of the former is that efficient job-brokering by the PES could reinforce labour demand by lowering recruitment costs for employers. An example of the latter is that product market reforms reinforcing competitive pressures may indirectly raise labour supply, by raising real wages and thus making work more attractive *vis-à-vis* benefit receipt.

48. Although Belgium moved in the opposite direction, the shift towards co-ordination of bargaining at the central level was used to determine maximum, rather than minimum, wage targets as from 1996 (Brandt *et al.*, 2005). This use of national co-ordination to encourage overall wage restraint is similar in nature to the role that tripartite agreements and social compacts have played for a longer period in several other European countries, including Ireland (since the national wage agreement in 1987) and the Netherlands (since the Wassenaar Agreement of 1982). See Fajertag and Pochet (2000) and OECD (2004a, Chapter 4) for discussions of recent experience with social compacts.

49. Building upon earlier laws in 1988 and 1993, the 1996 Workplace Relations Act reinforced the on-going transition from a wage arbitration system – under which quasi-judicial industrial tribunals played a leading role in setting the terms and conditions of employment and frequently extended agreements beyond the original parties to a dispute to cover all employers in an industry – to a mixed system in which enterprise bargaining plays a large role. The 1991 Employment Contracts Act in New Zealand represented an earlier and more abrupt break with what had been a similar system of wage arbitration.

50. As an example, the option of invoking opt-out clauses for firms in distress was introduced in Spain in 1994, but it has rarely been used. However, recent surveys of German firms with 20 or more employees and work councils indicate that between one-fifth and one-third have made use of opt-out clauses.

51. France is the most striking example with union membership below 10% of the work force, yet over 90% are covered by collective bargaining.

52. These changes in minimum wages must be seen in the context of other labour market reforms in many of these countries, notably the increased use of make-work-pay policies for low-skilled workers (Sub-section 2.2) and of employer subsidies or tax exonerations targeted at low-wage workers (Sub-section 3.2).

53. More detailed surveys of this literature are provided by Aidt and Tzannatos (2002); Flanagan (1999); and OECD (2004a, Chapter 3). For analyses of the impact of collective bargaining on wage compression, see Baker *et al.* (2005); Bertola *et al.* (2002a, b); Blau and Kahn (1999); Kahn (1998, 2000); and OECD (1997b, 2004a, Chapter 3).

54. Blanchard and Wolfers (2000) report evidence that high union density increases the impact of adverse shocks, though this effect is not always statistically significant. Several of these studies find that union density interacts with wage co-ordination – albeit in a way that is not consistent across studies. There is also some evidence that a larger degree of unionisation reduces employment and participation.

55. Across all of these studies, union density appears to be more strongly related to unemployment than bargaining coverage. However, this finding probably reflects the greater availability of internationally comparable data on union membership, than on bargaining coverage. Particularly

in countries where contractual terms for union members are routinely extended to many non-union workers, the "monopoly" distortions from collective bargaining are probably more strongly associated with union bargaining coverage than with union membership. This is the conclusion reached by Aidt and Tzannatos (2002), based on a broader literature survey that encompasses a large number of national studies.

56. Centralised/co-ordinated bargaining may also facilitate implicit or explicit "social pacts" under which unions agree to restrain wage demands in exchange for policy concessions from the government. However, the 1994 Jobs Strategy recommendations concerning collective bargaining reflected scepticism concerning the likely contribution of corporatist bargaining structures to good labour market performance (OECD, 1994a,c). Among the grounds for this reticence were the often disappointing experience with incomes policies during the 1970s and 1980s.

57. See Aidt and Tzannatos (2002) and Flanagan (1999) for more comprehensive surveys of the empirical research which conclude that the evidence for a hump-shaped relationship is overall quite weak.

58. See Bertola *et al.* (2002a, b), Blau and Kahn (1999), Calmfors (1993), Freeman and Schettkay (2000), Puhani (2003), and Siebert (1997).

59. In this regard, there may be an argument for establishing a youth sub-minima, because the association between holding a minimum-wage job and poverty is especially weak for this age group (who often live with their parents). As was mentioned above, evidence for job losses caused by minimum wages also tends to be strongest for youth.

60. In France, employers' social security contributions for minimum wage workers were cut significantly after 1997, but the potential reduction in labour costs was off-set to a considerable extent by a sizeable increase in the minimum wage relative to the median wage. It should be noted, however, that the calculations in Table 3.10 – which gross-up the minimum wage by employers' contribution rates for a single worker with no children at the 0.67 average production worker earnings level – understate the extent to which targeted tax exonerations have lowered the cost of employing some minimum wage workers.

61. The detailed recommendations relating to wage-setting flexibility are discussed in Sub-section 3.1.

62. However, high tax rates per se do not appear to influence levels of undeclared work across countries and time (OECD, 2004a, Chapter 5). See Section 3 of Chapter 4 for a discussion of policies to reduce undeclared work.

63. As measured here, the tax wedge includes personal income taxes, as well as employers' and employees' social security contributions, minus cash benefits. This wedge measure does not include indirect taxes (*i.e.* consumption taxes) and exclusion of these taxes in the tax wedge indicators tends to bias downwards the result, particularly in countries where indirect taxes are high, such as in the Nordic countries.

64. The wedges shown in Figure 3.7, Panel A are calculated for a couple family, consisting of an APW worker, a non-working spouse and two children.

65. In Korea and Japan, this was mainly due to increases in social security contributions. In Norway, personal income taxes increased along with social contributions. The reported increase in the tax wedge in Australia is mainly due to a methodological revision, as state payroll taxes were included for the first time in the calculation of the tax wedge in 2002. The changes shown for Austria, the Czech Republic and Japan are also affected by changes in methodology.

66. The large decrease in Mexico in Figure 3.7, Panel A is in part due to the fact that employers' contributions to privatised social security are no longer reported as taxes from 1999.

67. Negative tax wedges reported in these figures reflect tax credits and child benefits in excess of any taxes.

68. Only five of these 17 studies found no statistically significant relationship between a higher tax wedge and higher overall unemployment, and three of those found evidence that a higher wedge has adverse impacts on employment and participation (Di Tella and MacCulloch, 2005) or on the employment status of certain workforce groups. Bertola *et al.* (2002b) report decreases in the relative employment of women, youth and older workers, while Scarpetta (1996) reports increases in long-term unemployment. Higher labour tax wedges also appear to be associated with unemployment increasing more sharply following an adverse macroeconomic shock (Bertola *et al.*, 2002a; Blanchard and Wolfers, 2000).

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69. The implications of different wage bargaining systems for wage claims are discussed in more detail in Sub-section 3.1.

70. The evidence that a higher tax wedge raises unemployment is reinforced by the observation that most empirical studies assessing the impact of labour taxation on real labour costs per employee have concluded that labour costs rise with the level of taxation (Leibfritz *et al.*, 1997; Nickell, 2003).

71. Alesina *et al.* (2005) show that Prescott's analysis implies a labour supply elasticity that is implausibly high, in light of the large empirical literature estimating labour supply elasticities using both individual-level data and cross-country regressions. They conclude that the impact of international differences in the tax wedge on labour utilisation is overestimated in Prescott (2004), arguing that part of the cross-country differences in labour supply attributed to differences in taxation are due, instead, to factors omitted from the analysis (*e.g.* public pensions systems and other benefits in Europe which encourage early retirement, the provision of childcare, etc.).

72. Disney (2004) attempts to divide contributions for public pensions into tax and premia contributions. His analysis suggests that only the tax component has a negative impact on employment.

73. As the wage level is the only qualifying condition, the tax exoneration applies to both new recruits and longstanding members of the workforce. Typically, the reduction in contributions remains in effect as long as the monthly wage remains below a pre-defined ceiling, with no other limit as to duration. One obvious way of reducing the "pure" windfall effects is to introduce tighter targeting. Possible target groups include new hires (possibly limited to *e.g.* the long-term unemployed or welfare recipients) or low-skilled single parents. Targeted employment subsidies are found throughout the OECD area and account for a significant share of expenditure on active labour market programmes (see Sub-section 2.3).

74. See Sub-section 2.2 of Chapter 5 for a discussion of low-pay traps.

75. New Zealand provides an interesting case in point. The Employment Relations Act (ERA), which came into force in 2000, marked a significant departure from the previous legislation in that it promotes collective bargaining as a positive basis for employment relationships (Forster and McAndrew, 2003). The ERA increases procedural inconveniences for dismissals somewhat, by establishing minimum regulatory provisions for dismissals while also specifying that stricter procedures may be set by individual employment agreements or collective bargaining. The ERA also tends to limit the use of fixed-term contracts, by requiring "genuine reasons based on reasonable grounds" to employ a worker under such a contract. The detailed application of this new standard is largely left to be settled at the bargaining table, although the ERA does stipulate that neither excluding or limiting the rights of employees under the Act, nor establishing the suitability of the employee for permanent contract, are valid reasons for using fixed-term contracts.

76. In the United Kingdom, the probationary period (during which new hires can be dismissed subject to only limited constraints) was also reduced at the end of the 1990s, from two years to one year.

77. The case of Spain shows the importance of reforms that reduce both the strictness of EPL for permanent and fixed-term contracts. The liberalisation of the use of temporary contracts of the early 1980s, while maintaining relatively strict protection for workers with permanent contracts, led to temporary employment accounting for essentially all employment growth and rising to account for over one-third of total employment by the early 1990s. This evolution raised concerns about the potentially detrimental effects from an increasingly "dual" labour market. As a result (and in line with the recommendations of the 1994 Jobs Strategy), protection was eased somewhat for permanent workers, in combination with measures to restrict somewhat the use of temporary contracts and make it easier for employers to transform temporary contracts into permanent ones. Since 1994, only the Slovak Republic and Korea have followed a similar path and relaxed the regulation of both permanent and temporary forms of employment.

78. Bingley *et al.* (1999) find that the level of worker turnover in Denmark is relatively high, at about 30%. Denmark is also at the low end of the international scale in terms of average job tenure, along with the United Kingdom and the United States (OECD, 2001, Chapter 3).

79. Cahuc and Kramarz's (2004) critique of French EPL provides an illustration of the pitfalls that can arise when too much emphasis is placed upon employment protection regulations as the instrument for reducing the insecurity associated with job loss. French firms announcing large-scale restructuring are required to negotiate a social plan ("plan de sauvegarde de l'emploi"), setting forth a strategy for reintegrating the workers whose jobs are being discontinued. Retraining agreements ("congé de

conversion") offering job losers six months of training and job-search support, are often a compulsory component of this plan, as are other measures such as severance pay. This policy package results in a slow and legalistic process which discourages labour mobility that is desirable from an efficiency perspective, while providing adjustment assistance to workers who are laid-off that is less timely, less well calibrated to their actual earnings losses and less effective than could be provided by making greater use of unemployment benefits (which vary according to unemployment duration) and ALMPs organised by the PES (which specialises in providing such services).

80. As was discussed in Sub-section 2.1, the UI system in the United States uses experience-rating (ER) to discourage excessive layoffs. Blanchard and Tirole (2003) argue that a well designed UI system with ER can outperform severance pay as a means for discouraging excess layoffs and insuring workers against income losses from involuntary job loss. As they note, the introduction of ER in countries where fixed-term contracts are common would require measures to insure that the termination of temporary contracts is treated in the same manner as the termination of permanent employment relationships. If this is not the case, then employers will have an incentive to make excessive use of fixed-term contracts.

81. The EU Directive on Working Time, adopted in 1993 and later amended in 2002, forms a key reference for national standards in EU countries. This directive specifies a 48-hour maximum weekly limit, including overtime, a minimum daily rest period of 11 hours and a daily limit of eight hours for night work.

82. This has resulted in a major reorganisation of work and work schedules that are likely to have had a positive impact on hourly productivity growth, but not enough to compensate the reduction in working hours, even though the growth in unit labour costs has been maintained at reasonable levels due to wage moderation and subsidies to reduce employers' social security contributions (Crépon *et al.*, 2004). More recently, France has taken measures that would make it easier and less costly to lengthen the workweek from the statutory norm of 35 hours.

83. The general trend in EU countries is towards the adoption of labour standards to protect part-time workers stipulated in an EU framework agreement on part-time work aimed at eliminating discrimination against part-time workers and improving the quality of part-time work. Most EU member States apply pro-rated rights to pay, holidays, sickness benefits and access to the same working conditions as a full-time worker doing a comparable job.

84. In a few countries, the share of men working a standard workweek has increased. These tend to be countries where there has been a shift from very long hours to standard hours (*e.g.* Mexico and Portugal). Trends in the diversity of working hours have been more mixed for women than for men, due to very different evolutions in the relative shares of women working part-time and full-time schedules.

85. See Krueger and Pischke (1997); Amable and Gatti (2001); Pissarides (2001); Spector (2002); Blanchard and Giavazzi (2003); Messina (2005); Ebell and Haefke (2003).

86. Product market regulations in this section refer to competition-restraining regulation only and exclude health and safety regulations that are directed at social objectives.

87. See, for instance, Loayza *et al.* (2005); Scarpetta *et al.* (2002); Brandt (2004); Klapper *et al.* (2004); Cincera and Galgau (2005)

88. The Jobs Strategy recommendations to enhance the creation and diffusion of technological know-how and to nurture an entrepreneurial climate were also seen as being, in part, indirect measures to improve job quality and living standards in the long run, by supporting rapid productivity and real wage growth (OECD, 1994b).

89. This section analyses training for employed adults, while publicly funded training programmes for unemployed or inactive persons receiving social protection benefits are discussed in Sub-section 2.3 along with other active labour market programmes. The discussion of youth in Sub-section 1.3 of Chapter 4 – in particular, the analysis of the labour market difficulties encountered by early school leavers – illustrates the importance of a good initial education and a smooth school-to-work transition, but a detailed analysis of school systems and pathways from school to work lies outside the scope of this report. The Secretariat has just launched a new thematic review of the school-to-work transition which will highlight examples of good and bad practices. These reviews will build upon an earlier studies of the school-to-work transition (OECD, 2000b) and career guidance (OECD, 2004b).

90. For instance, the probability of finding a new job within two years after lay-off is estimated to be 8 percentage points greater for a worker aged 35 years or more, if she took some training in the year before the job loss job (OECD, 2004a, Chapter 4).

91. The evidence for the link between human capital investments and overall growth is more extensive for initial education than for adult training. This appears to be due, in large part, to the much greater availability and higher quality of international data on educational attainment. Firm and industry-level studies show that training is associated with gains in productivity. This finding – together with the strong positive correlation between initial education and subsequent participation in training – suggests that some of the strong positive association between higher educational attainment and economic growth probably reflects the impact of higher adult training on productivity (see Bassanini *et al.*, 2005; OECD, 2003b, and the numerous studies cited therein).

92. One of the core predictions of the standard human capital theory has been that workers should pay all of the costs of general training, because they can appropriate all of the benefits by quitting and moving to another firm, as soon as they have been trained. Recent theoretical and empirical research has come to very different conclusions (Brunello and De Paola, 2004).

93. Whereas a unitary public supply model continues to characterise initial education, there has been a trend away from such approaches for adult education and training (OECD, 2005b). Demand-side approaches to adult training appear to be better suited to the heterogeneity and continuous evolution of firms' and workers' training needs.

94. In Germany, contractual pay-back clauses are enforced by courts only if the quitting employee is judged to be able to benefit from the content of training in the new job. This condition can be expected to reassure the workers that they will be liable to pay only when the training truly has enhanced their labour market situation, thereby increasing the incentive for workers to accept such clauses.

95. Since all age restrictions were removed from apprenticeships and traineeships in Australia in 1992, persons aged 25 years and over have accounted for the majority of new apprenticeships (OECD, 2003c). Furthermore, this strong growth has not come at the expense of younger apprentices, whose numbers also rose.

96. Training leave schemes may offer a more viable model for intensive mid-career training in many instances, particularly when a training allowance compensates for a substantial share of foregone earnings (see below).

97. In the case of the levy scheme adopted in Australia for a relatively short period in the 1990s, many of the new providers that entered after the introduction of the scheme were of dubious quality. Similarly, there is evidence that some training providers participating in the English Individual Learning Account initiative were abusing the system by offering low-value, poor-quality learning. (For a discussion of these and other examples, see OECD, 2005b, Chapter 3.)

98. First-best policies would also encompass measures to make it easier for workers to finance training through borrowing on credit markets, as well as all of the policy reforms envisaged by the 1994 Jobs Strategy which aim to reduce imperfection in product and labour markets. For instance, reforms reducing barriers to entrepreneurship, employment protection legislation and minimum wages – by removing barriers to resource reallocation, reducing mark-ups and allowing pay-scales to reflect productivity more closely – are likely to reduce search costs for trained workers. If so, then the share of training benefits that can be appropriated by workers should rise, increasing their incentive to pay for training. However, remaining imperfections in the training and credit markets could still create barriers to workers investing in training. Furthermore, reducing wage compression in the presence of these imperfections could have the perverse effect of lowering training, because employers' incentives to invest would be reduced.

99. More precisely, the subsidy component of a policy package should compensate only the gap between marginal costs and marginal private benefits at the socially desirable investment level, leaving to employers and/or employees the responsibility of financing the rest. Although it is difficult to estimate the optimal matching rate, focussing resources on co-financing schemes with large leverage potential appears to provide a good "rule of thumb" in practice. Doing so minimises costs for the public budget of achieving a given increase in training. It also reduces the risks of financing training that would have been undertaken anyway or that has little social value. Experience shows that limited public co-financing can mobilise substantial investment from employers (examples includes apprenticeships, time accounts, company-based individual learning accounts, as well as training consortia pooling together resources from different enterprises; see OECD, 2003c, 2004a, 2005b).

100. For example, Leuven and Oosterbeek (2004) show that tax deductions available to firms training workers aged 40 years or older – introduced in the Netherlands in 1998 and recently abolished – induced significant substitution between workers above and immediately below the age threshold, making the overall efficiency of the scheme questionable.

101. These schemes combine a tax of a given percentage of payroll with a 100% automatic subsidy of training expenditures up to that percentage of payroll. By covering total costs up to a pre-determined ceiling, train-or-pay schemes do not provide a matched contribution to firms that would have spent less than the legal minimum in the absence of the scheme and, therefore, "overpay" any increase in training investment they induce. Conversely, firms that would have spent up to the legal minimum anyway enjoy a windfall, which does not increase their incentives to invest in training.

102. When the policy goal is to increase training for specific workforce groups, measures that enhance those worker's incentives to invest in training may also merit consideration (see below).

103. An additional argument in favour of matched contributions is that individuals are more likely to be effective in monitoring service quality when they have some own resources at stake.

104. Vouchers usually involve a lump-sum payment that covers training fees up to a fixed ceiling (examples are training vouchers in Italy and the Geneva Canton of Switzerland; ISFOL, 2002; Conseil d'État de la République et Canton de Genève, 2000). Recipients who would have spent more than the maximum ceiling receive a windfall that does not modify their marginal costs. Conversely, those who spend less than the ceiling have no incentive to invest in training yielding high social returns. To the extent that vouchers entail a ceiling on entitlements, the former distortion cannot be completely avoided, but it can be reduced by targeting vouchers on disadvantage groups previously receiving little training. Similarly, the latter source of inefficiency can be dampened by avoiding that subsidies pay for the totality of training costs. For example, in Upper Austria, vouchers cover no more than 80% of training costs for older and low-qualified workers (OECD, 2005b, Chapter 3).

105. A complementary approach is to shorten the duration of training by better recognising prior learning, so that individuals can start their training from the actual skill base that they possess. Although a number of models of recognition of prior learning have been adopted in OECD countries, little information is available on the numbers of workers benefiting from them, the extent to which credit is granted, the actual costs of these schemes, as well as their credibility among providers and, ultimately, their impact on the quality of studies (OECD, 2005b, Chapter 2).

106. The relative success of the Swedish schemes (with 0.7% of the employees on training leave in 2002) can be attributed to the relatively high replacement rate guaranteed by co-financing schemes. Although the Swedish scheme guarantees only a relatively small allowance, it can be complemented through income-contingent loans. Even higher take-up has been achieved by a Belgian training leave scheme which fully covers foregone wages and out-of-pocket training costs (up to a ceiling). However, such a system is extremely costly for the public budget and is potentially vulnerable to supporting low-productivity training (OECD, 2003a, Chapter 5).

107. Similarly, in most countries where pay-back clauses are in use, their terms were defined by collectively negotiated or individual employment contracts.

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Chapter 4

Policies Targeted at Specific Workforce Groups or Labour Market Segments

Are general reforms to support the overall functioning of the labour market sufficient to deliver good employment performance or are targeted measures to improve employment outcomes for particular groups also required? As policy priorities have shifted from lowering unemployment to raising employment rates more generally, it has become evident that there is a role for tailored policies which tackle the barriers to participation affecting groups in the working-age population who tend to be under-represented in employment or too often hold jobs that do not make full use of their productive potential. These groups include women, older workers, youth and immigrants. Which types of measures have proven to be most effective for each group? Should the scope of the Jobs Strategy also be expanded to encompass measures to address the problems faced by workers in lagging regions or informal employment?

The 1994 Jobs Strategy was mainly focused on general reforms to support the overall functioning of the labour market and it placed little emphasis on more targeted reforms intended to improve the labour market performance of particular groups in the working-age population. Over the past decade, however, concern has been growing about the low employment rates of certain groups – such as women, older workers, youth and immigrants – especially against the prospect of population ageing.

In addition, there is growing concern in certain countries with the persistence of imbalances between different segments of the labour market. In particular, in certain countries, low-employment regions coexist with regions where there is near full employment – thus raising the issue of how the Jobs Strategy can better take into account regional employment imbalances. Moreover, in a number of member countries – specially those which joined OECD after the Jobs Strategy was adopted in 1994 – there is a high incidence of informal employment, which is a problem for a number of reasons, including that it tends to be associated with weak productivity gains, undermines tax collection and makes it difficult to manage social protection.

This chapter reviews policies that especially affect the labour market performance of these groups or labour market segments – bearing in mind that general reforms, as outlined in the previous chapter, will also help to address these specific labour market issues.

1. Promoting employment prospects of under-represented groups

1.1. Measures to increase participation of women

Increased female participation has been a major component in labour supply growth during past decades, as illustrated in Chapter 2. This increase has been mainly autonomous and related to the fact that more recent cohorts of women are better educated than earlier cohorts and therefore can more easily find jobs and tend to place greater priority on pursuing a career. However, as women's participation rates approach those of men, future increases become more dependent on reforms aimed at reducing remaining disincentives for women to work and encouraging the diffusion of family-friendly employment practices.

Looking at the relative taxation of household members, second earners are effectively taxed more heavily than single earners in most OECD countries (Figure 4.1, Panel A). This tax bias has increased on average for the OECD during the past two decades, especially in some southern European countries, like Italy and Spain. By contrast, this bias is smaller and has declined in most Nordic countries. In countries where this bias is substantial, a more neutral tax treatment of second earners is an obvious candidate among policies to stimulate female participation. For example, OECD research suggests that an equal tax treatment of second earners would increase female participation by 4 percentage points on average for the OECD area (see Jaumotte, 2004). There is even a case for taxing the income of second earners lighter on optimal tax grounds, given that their labour supply is more elastic compared to single earners.[1]

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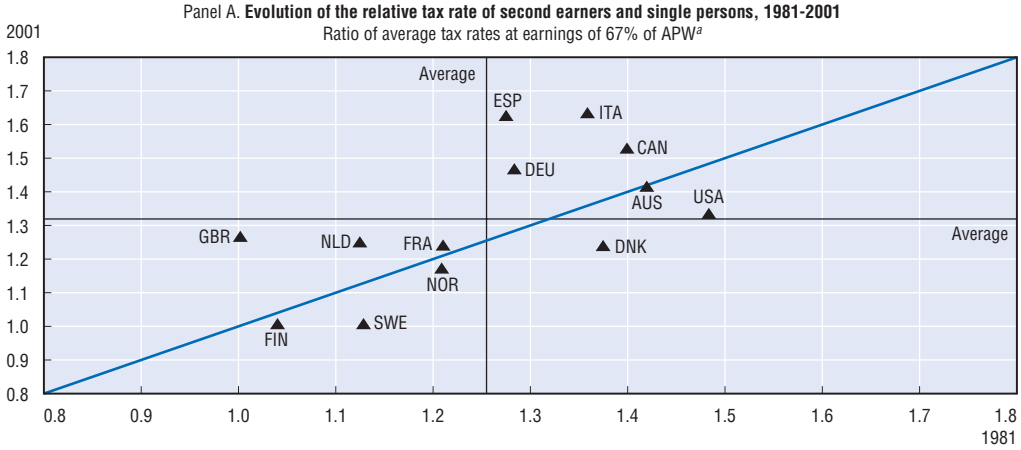
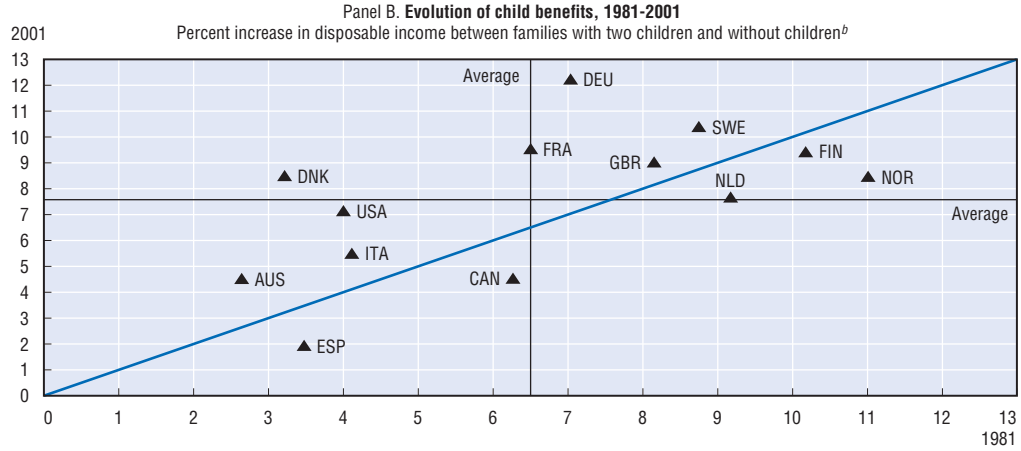
Figure 4.1. **Work incentives for women**

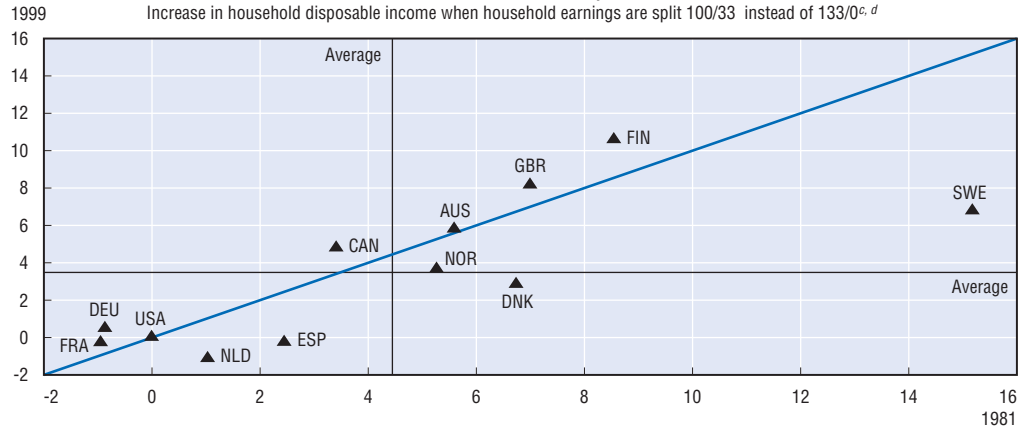
Panel A. **Evolution of the relative tax rate of second earners and single persons, 1981-2001**
Ratio of average tax rates at earnings of 67% of APW[a]



Panel B. **Evolution of child benefits, 1981-2001**
Percent increase in disposable income between families with two children and without children[b]



Panel C. **Evolution of the tax incentives for female part-time work, 1981-1999**
Increase in household disposable income when household earnings are split 100/33 instead of 133/0[c, d]



APW: Average production worker.

a) The spouses of second earners are assumed to earn 100% of the APW.

b) The primary earner is assumed to earn 100% of the APW, and the secondary earner 33% of the APW.

c) 100/33 refers to a situation where the primary earner earns 100% of APW and the secondary earner 33% of the APW; 133/0 refers to a situation where the primary earner earns 133% of APW and the spouse has no earnings.

d) For the Netherlands, if account is taken that the primary earner has to buy private health insurance when she/he earns 133% of APW, while her/his income falls below the income limit for the mandatory health care insurance when the household income is split (into a wage of 100% of APW for the primary earner and 33% for the secondary earner), the tax incentive to share market work between spouses amounted to 6.9% in 1999, and to 10.2% after the 2001 tax reform.

Source: OECD Tax database; OECD (1995), *The OECD Jobs Study: Taxation, Employment and Unemployment*, Paris; and OECD Tax models.

Statlink: *http://dx.doi.org/10.1787/014203526272*

The participation of women in the labour market is also influenced by policies related to family support. So far, family support in OECD countries has taken the form of childcare subsidies and child benefits. In theory, childcare subsidies stimulate female labour supply as they increase the relative return to market work.[2] The empirical evidence confirms that childcare subsidies raise female participation.[3] By contrast, child benefits do not raise the return to market work and may lead to a reduction in labour supply as they raise income and hence the demand for leisure. This form of support remains much more important than childcare subsidies in most member countries. Both child benefits and childcare subsidies have increased significantly in recent decades, and child benefits can increase the disposable income of families with two children by more than 10% (Figure 4.1, Panel B). From the perspective of raising female participation, childcare subsidies are a better alternative than child benefits, especially where high tax wedges (facing both second earners and single individuals) reduce female labour supply. Indeed, childcare subsidies are often employment-conditional. Furthermore, child-care costs can be a prohibitive barrier to employment for lone mothers desiring market work in the absence of such subsidies (OECD, 2003a, Chapter 3).

Another form of childcare support is the provision by most governments of maternity, paternity or childcare leave. In 1999, the average length of paid leave was 26 weeks, with the longest paid leave being found in France, the Slovak Republic and most Nordic countries (Jaumotte, 2003). During the past two decades, the generosity of paid parental leave has increased in all OECD countries, with the exceptions of Ireland, the United Kingdom and several countries with no legislation mandating paid leave. According to empirical studies, job-protected paid leave increases the employment rate of women significantly, by helping to reconcile work and family responsibilities, without having an adverse effect on wages (Rhum, 1998). However, this only holds when leave entitlements remain relatively short. Moderately longer leave (*e.g.* around nine months) also increases female employment rates, albeit at the price of a drop in relative wages. Yet longer parental leave (*e.g.* three years or more) makes it difficult to return to work, even when reinstatement is guaranteed (see European Foundation, 2001). The absence of job protection makes the return to work even more unlikely, especially for low-skilled workers (OECD, 2003a, Chapter 3).

Part-time working is often seen as a means to facilitate the integration of women in the labour market, by allowing them to combine market work with family responsibilities. There is a slight positive correlation between voluntary part-time work and female participation across OECD countries (see OECD, 2006a, Figure W.4.1). The tax incentive to share market work within couples – as measured by the increase of household disposable income from shared working hours – influences the decision between inactivity and activity and between full- and part-time working (Jaumotte, 2003). On average, the splitting of household income between spouses resulted in only a small increase in household disposable income in 1999 and the gain declined compared with 1981 (Figure 4.1, Panel C). Therefore, room exists for stimulating female participation by changing the tax incentives for part-time work. Childcare subsidies influence part- and full-time participation differently, having a larger impact on full-time participation (Powell, 1998; Gustafsson and Stafford, 1992).

Table 4.1 gives a synthetic review of the results of econometric estimates reported in Bassanini and Duval (2006) on the determinants of full- and part-time employment rates of women. High unemployment benefits and tax wedges discourage both part- and full-time

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Table 4.1. **Determinants of full- and part-time female employment, 1982-2003**

	Full-time employment	Part-time employment	Total employment
General policies and institutions			
Unemployment benefits	–	–	–
Tax wedge	–	–	–
Union density	+	–	No
EPL	–	No	No
PMR	–	–	–
High corporatism	No	No	No
Institutions and policies specific to women employment			
Tax incentive to part-time	–	+	+
Relative marginal tax rate on 2nd full-time earner	–	No	n.a.
Relative marginal tax rate on 2nd part-time earner	+	–	n.a.
Family cash benefits	No	–	–
Number of leave weeks	+	–	n.a.
Number of leave weeks squared	–	+	n.a.
Childcare subsidies	+	No	+
Control variables			
Female education	+	No	+
Output gap	+	No	+

EPL: Employment protection legislation.
PMR: Product market regulation.
n.a.: Not applicable.
No: No significant impact on employment.
+/–: Significant positive/negative impact on employment.
Source: Bassanini and Duval (2006).

Statlink: *http://dx.doi.org/10.1787/063503851510*

female employment and the elasticities are typically larger than for male employment, consistent with the expectation of larger labour supply elasticities for women. Unionisation promotes full-time female employment at the expense of part-time female employment, while strict EPL lowers the full-time employment rate of women.

These econometric estimates also help to assess the effects of specific policies and institutions on female employment patterns. Increasing the tax incentives to work part-time would attract more women into employment, but would also cause some women working full-time to cut their working hours. Relative marginal tax rates on second earners also matter in terms of both the decision to enter the labour force and the choice of the number of hours worked. In particular, high relative taxation of part-time work induces women who would have worked part-time otherwise to work full-time. Child benefits reduce part-time female employment only, as the income effect from child benefits is unlikely to be large enough to reduce employment of women working full-time. By contrast, childcare subsidies stimulate female full-time employment only. Finally, moderate parental leaves encourage women to work full-time while longer leaves are associated with more part-time work as women probably face difficulties when returning to work. The estimates confirm that female participation increases with education, but for full-time working only.

1.2. Measures to increase participation of older people[4]

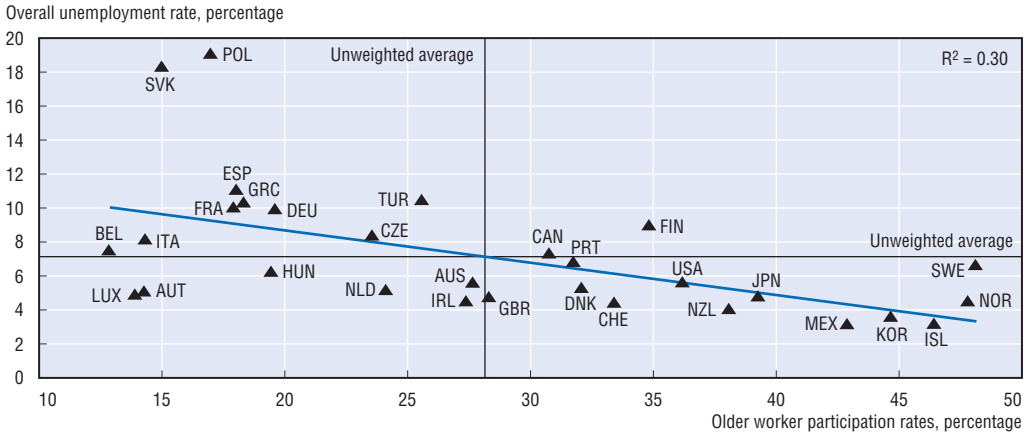
Barriers to employment for individuals aged 55 to 64

The 1994 Jobs Strategy contained a recommendation to adjust policies and programmes for older workers, so as to provide them with better opportunities to continue

working and reduce the economic incentives for them to withdraw from the labour market.[5] There are three key barriers to employment facing older people: financial disincentives; employer barriers; and weak employability.[6]

Financial disincentives. Until the early 1990s, income transfers were often provided to older workers in order to induce early retirement. Such schemes typically had been introduced with the hope of lowering unemployment, the expectation being that older workers induced to retire early would be replaced by unemployed younger workers. However, experience has shown this view to be fallacious. As Figure 4.2 illustrates for 2004, countries with the lowest participation of older workers are also those where unemployment remains highest.

Figure 4.2. **Older worker[a] participation and overall unemployment in OECD countries, 2004**



a) 55 and over age group, except 55-74 for Finland, Hungary, Iceland, Norway and Sweden.

Source: OECD database on Labour Force Statistics.

Statlink: *http://dx.doi.org/10.1787/065226116824*

Employer barriers. Hiring and retention rates of workers decline significantly after the age of 50 in all OECD countries, although more sharply in some countries than others. The reluctance of employers to hire or retain older workers reflects both subjective and objective factors. First, there is evidence of age discrimination in all countries reflecting both negative and positive stereotypical views by employers about older workers. Second, the employment of older workers may be discouraged because rigid seniority compensation structures cause labour costs to rise faster with age than productivity. Third, employers and trade unions have sometimes collaborated to convert state subsidised early retirement schemes into a socially acceptable way of laying-off workers. Finally, mandatory-retirement rules are common in some countries.

Weak employability. Employment prospects for some groups of older people are poor because they have obsolete skills, are not receiving appropriate help in finding jobs if unemployed, or face unsuitable working conditions and working-time arrangements. Older workers receive far less training than younger workers in all countries, but there is considerable variation across countries in the size of this gap (as well as in the overall incidence of training). A strong policy focus on tackling youth unemployment has meant that older unemployed workers are also under-represented in active labour market programmes in most countries. Poor or inappropriate working conditions can also push

some older workers into early retirement. For example, a lack of opportunities to shift to part-time work may limit the scope for a more phased transition to retirement.

Besides these three types of age-specific barriers, the employment of older people is also influenced by the general labour market institutions and policies that affect all segments of the working-age population. Evidence from Bassanini and Duval (2006) on the effects of both specific and general barriers to the employment of older persons is summarised in Table 4.2. Their analysis confirms that certain characteristics of pension systems represents important barriers to continued employment after age 55, including a high implicit tax on continued work (see next section) and a low standard age of retirement. Among the general factors depressing employment rates for older workers are generous unemployment benefits, a high tax wedge and high union density. By contrast, strict EPL and PMR are associated with higher employment rates for this age group, probably because they reduce the risk that older workers will be laid off by their employers.

Table 4.2. **Determinants of older worker employment (55-64 age group), 1982-99**

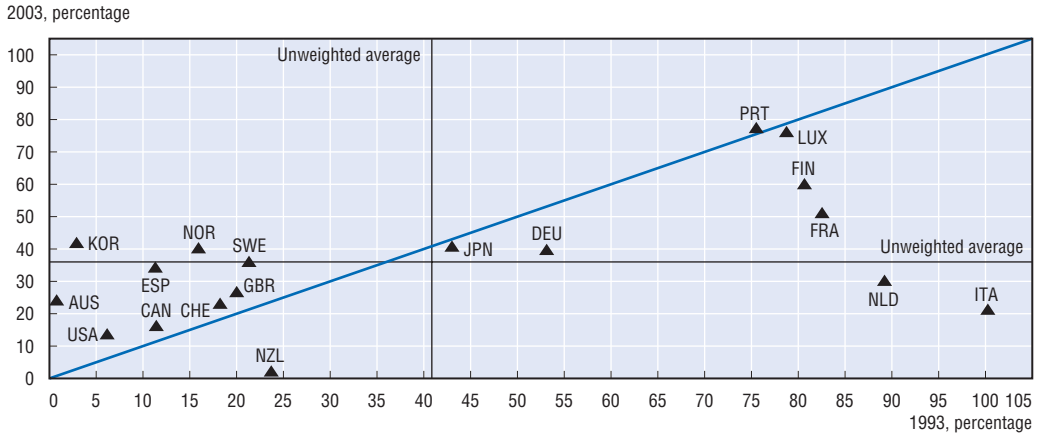
	Total employment
General policies and institutions	
Unemployment benefits	–
Tax wedge	–
Union density	–
EPL	+
PMR	+
High corporatism	No[a]
Institutions and policies specific to older worker employment	
Implicit tax on continuing work	–
Standard age of eligibility to pension benefits	+
Interactions between implicit tax rate and EPL	+
Control variables	
Output gap	+

EPL: Employment protection legislation.
PMR: Product market regulation.
No: No significant impact on employment.
+/–: Significant positive/negative impact on employment
a) Negative coefficient becomes insignificant when Italy is dropped from the sample.
Source: Bassanini and Duval (2006). Statlink: *http://dx.doi.org/10.1787/006564071757*

Policy developments since 1994

The implicit tax on continuing work – which measures the costs of continuing to work, in terms of contributions paid and foregone benefits – provides a summary indicator of the magnitude of the financial incentives to retire.[7] Figure 4.3 shows the development of the implicit tax on continuing work between 1993 and 2003.[8] According to Figure 4.3, the incentive in 1993 to withdraw early from the labour market as a result of the presence of early retirement schemes was particular high in some continental European countries, including Finland, France, Italy, Luxembourg, the Netherlands and Portugal, while it was considerably lower in English-speaking countries, Japan, Korea, Norway, Spain and Sweden. The incentives to withdraw early embedded in the old-age pension system were also particularly high in France, Italy, Luxembourg and the Netherlands.[9] Over the past decade, the incentive to withdraw between the ages of 55 and 60 has been significantly reduced in a majority of OECD countries. As concerns retirement incentives between the

Figure 4.3. **Implicit tax embedded in early-retirement schemes on continuing work from age 60 to age 65,[a] 1993-2003**



a) The implicit tax on continued work is defined as the average annual change in pension/social wealth (*i.e.* the present value of the future stream of pension/social benefits), net of additional contributions paid, resulting from a decision to postpone retirement from age 60 to age 65. The calculations are made for a single worker with average earnings. For 2003, they reflect the steady-state of currently legislated systems once they have fully matured (*e.g.* Korea) and once recent reforms have been fully phased in, which in some cases (*e.g.* Italy) will take several decades.

Source: Brandt *et al.* (2005). Statlink: *http://dx.doi.org/10.1787/251746028212*

ages of 60 and 65, progress has been more mixed. However, the average implicit tax for the OECD area declined modestly, because big reductions in several countries where the implicit tax was the highest in 1993 offset smaller increases elsewhere (Figure 4.3).

A review of reforms undertaken by OECD countries over the past ten years identifies the types of initiatives which have shaped the recent evolution of the implicit tax on continuing work (Table 4.3). A number of member countries tightened eligibility to early retirement and invalidity schemes, while others did the same with unemployment benefit provisions for older jobseekers, who have an extended duration of unemployment benefit receipt in many OECD countries and are often exempted from job-search requirements. Incentives for older workers to stay in the labour market were strengthened in Japan and Poland through provisions that facilitate combining pensions with income from work. Moreover, actuarial adjustments to early (or late) receipt of regular old-age pensions or other financial incentives to stay in the workforce were introduced in a number of countries. Eligibility criteria for invalidity schemes were also tightened in several OECD countries, although, as discussed in Chapter 3, this did not prevent the recourse to disability and sickness benefit schemes from rising in some cases (OECD, 2003d).

New evidence

There is evidence that a three-pronged agenda of age-friendly employment policies can be effective at raising the employment rates of older persons.

Improving financial incentives. Reducing the implicit tax on continued work may have a substantial impact in stimulating the labour supply of older workers, as illustrated by the regression results reported in Table 4.2 and the simulations reported in Duval (2004). The first and most straightforward step in this direction is to close all early-retirement pathways. Indeed, reforming old-age pensions to close off early retirement options would have little impact as long as people have access to alternative early-retirement options.

Table 4.3. **Early-retirement, invalidity and old-age pension schemes: policy reforms over the 1994-2004 period**[a]

	Early retirement schemes	Unemployment benefits for older workers	Regular old-age pension systems	Invalidity schemes	Sickness benefits	Rehabilitation and job brokering
Australia				+		+
Austria	+		+	[+, –]	–	
Belgium	+	+				
Canada				+		+
Czech Republic		–	+	+		+
Denmark	+	+	+	[+, –]		+
Finland	+	+	+	[+, –]		+
France	[+, –]	+	+			
Germany	+	+	+	[+, –]	[+, –]	
Greece	–					
Hungary	+	+	+	+	+	+
Iceland			+			
Ireland						
Italy	+	–	+	+		
Japan	+	+				
Korea			+			
Luxembourg			+	+		+
Mexico						
Netherlands	+	+	+	+	+	+
New Zealand	+			+	+	
Norway	–	+		+		+
Poland	+		+	+	+	
Portugal	+		+			
Slovak Republic	+		+			
Spain			[+, –]	+		
Sweden	+		[+, –]		+	
Switzerland	+		[+, –]			
Turkey	+		+			
United Kingdom				+		+
United States			[+, –]	+		

a) +: Reforms following the OECD Jobs Strategy.
–: Reforms contrary to the OECD Jobs Strategy.
[+, –]: Reform elements going in different directions.

Source: OECD Economic Surveys.

Statlink: *http://dx.doi.org/10.1787/273476071425*

Then, the value of old-age pension benefits should be adjusted in an actuarially-neutral way in case of anticipated or deferred retirement.[10] The implicit tax on continued work can also be reduced by expanding the possibilities of older people to combine work with the receipt of a pension, though such a policy change may raise equity concerns.

In principle, the age of eligibility to a pension should not affect the actual age of retirement as rational forward-looking individuals could always chose the optimal age of retirement through lending and borrowing in capital markets. In practice, many older workers choose to retire at the age of first entitlement for either early or standard retirement benefits. This tendency lends support to policies which modify statutory retirement ages and other pension parameters in line with improvements in life expectancy.

Changing employer attitudes and practices. Age-discrimination legislation is important but is more effective if it is complemented by information campaigns and guidelines for promoting best practice and the benefits of age diversity in the workplace. The practice of mandatory retirement in firms is incompatible with the overall thrust of offering greater choice to workers' retirement decisions. This is why some countries are debating whether mandatory retirement should be prohibited.

Efforts to reduce labour costs of older workers have been made in certain countries by reducing the importance of seniority in wage-setting and, in some countries, introducing age-specific wage subsidies or labour tax reductions. However, to be effective, targeting these measures on age alone should be avoided. Some countries have also introduced taxes on the dismissal of older workers, but there is a growing awareness that these taxes have a negative impact on hiring older workers or lead to substitutions between workers of different ages.

Improving employability. As working lives are progressively extended, training becomes more critical for strengthening the employability of older worker, but should also look more profitable to both employers and employees. So far, retraining older workers ranks low among policy priorities of public and private employment services. Since the number of older jobseekers is likely to increase, this age group will have an increasing need for employment assistance though career counselling, job-search assistance and help with self-employment. In addition to negative perceptions about older-workers employability which are held by certain employers, certain economic factors increase the costs of hiring older workers. These may include seniority-based wage systems and costly employer-provided health insurance.

Inflexible working-time arrangements may discourage older workers from continuing work (Penner *et al.*, 2002). Easing barriers to part-time work could thus lead to an increase in the effective retirement age (Gustman and Steinmeier, 2004), although the net impact on effective labour supply might be smaller since some workers who would otherwise have worked full-time will reduce their hours worked. More generally, policies prolonging working careers should be accompanied by efforts to improve working conditions for older workers.

1.3. Promoting employment prospects of youth[11]

Youth in all countries face an above-average risk of unemployment, as they attempt to find a foothold in the labour market. For many youth, this is only a transitional difficulty. However, youth who are persistently unemployed (or who experience multiple spells of joblessness) may develop disadvantages that seriously compromise their long-term career prospects. It is thus a matter of major policy concern to develop young people's employability and ensure their successful entry into the labour market and subsequent access to career ladders.

These issues were treated as part of the 1994 Jobs Strategy. It recommended three orientations for promoting the position of youth in the labour market: increased wage and labour cost flexibility, reforms of initial schooling to ensure that youth enter the labour market with skills that employers value and measures to better structure the school-to-work transition.

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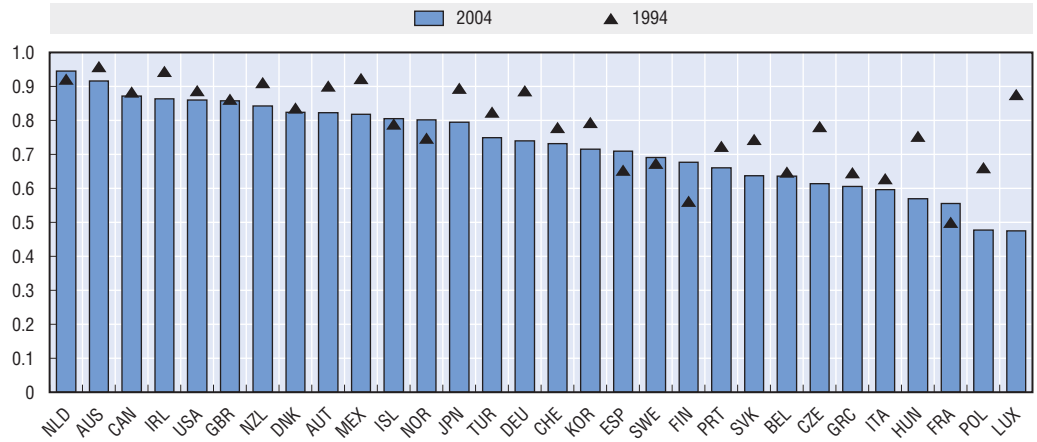
The position of youth in the labour market generally has not improved since 1994[12]

As already noted in Chapter 2, the situation of youth in the labour market has not improved much over the past decade, whether assessed in terms of relative unemployment or employment rates. Employment rates for youth did increase moderately in Finland, France, Norway and Spain, relative that for prime-age adults, but relative employment fell in far more countries (Figure 4.4). And it is still the case that youth are significantly more likely to be unemployed than prime-age adults in all OECD countries (Statistical Annex, Table C). In 22 of the 30 OECD countries, the unemployment rate of young adults, aged 20 to 24, is more than twice that of adults, aged 25 to 54 (OECD, 2006a, Figure W.4.2). Youth in Germany, the Netherlands, Canada, Ireland and Denmark are doing somewhat better relative to prime-age adults, as far as unemployment is concerned, than are their counterparts in the rest of the OECD.

Figure 4.4. **Youth employment rates relative to those of adults, 1994 and 2004**



Note: Data for youth refer to persons 20-24 years old, except for Switzerland (15-24 years old). Data for adults refer to persons 25-54 years old.

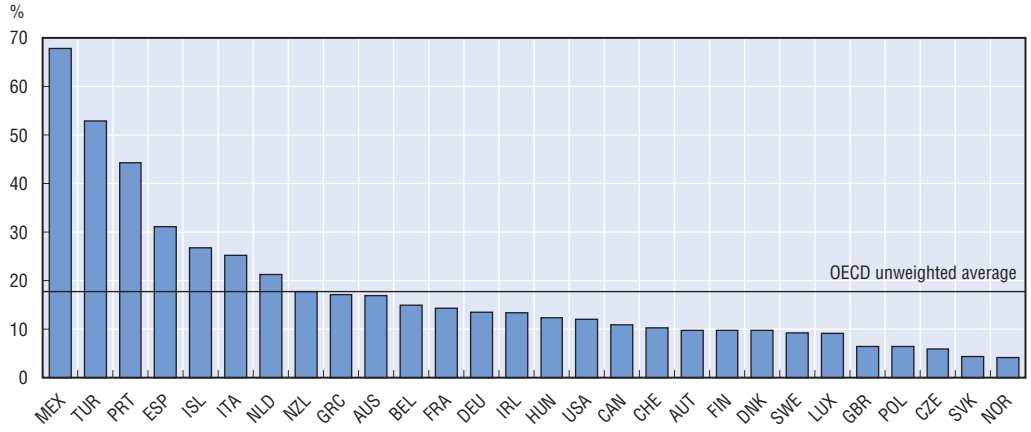
Source: OECD database on Labour Force Statistics. Statlink: *http://dx.doi.org/10.1787/605742250776*

A significant proportion of youth continue to leave the education system without any qualification (Figure 4.5). School drop-outs – which total around 33 million in the OECD area as a whole – risk facing a particularly difficult start in the labour market, as well as continued problems later in their careers. However, dropouts represent very different proportions of the youth cohort in their respective countries, ranging from 4% in Norway to 68% in Mexico.[13]

Finally, a significant proportion of young people are neither in education nor in employment. Several OECD countries – notably, Turkey, Mexico, Italy, Greece and eastern European countries – show rather high rates of young adults (20 to 24 years of age) who were neither studying nor working in 2003 (Figure 4.6). However, the situation has improved notably since 1996 in some of these countries (Hungary, Poland, Greece and Mexico). The picture for teenagers, 15 to 19 years of age, is slightly better. Only about 8% of this age group are neither in employment nor attending school.[14] These figures underline the importance of looking at both inactivity and unemployment when analysing the situation of out-of-school youth. It is also important to note that youth who are neither studying nor active in the labour market may be exercising choices that do not imply any hardship or lack of good employment opportunities. For example, approximately one-half of inactive young male adults in Sweden are either performing military service or engaged in foreign travel.

Figure 4.5. **Share of youth leaving school without a qualification in OECD countries, 2003**

Percentage of out-of-school persons aged 20 to 24 with less than upper secondary education



Note: For Iceland, Italy, the Netherlands and the United States, data refer to 2002; for New Zealand, data refer to 2001.

Source: OECD database on Labour Market Status by Educational Participation.

Statlink: *http://dx.doi.org/10.1787/577218438517*

Improving school-to-work transitions

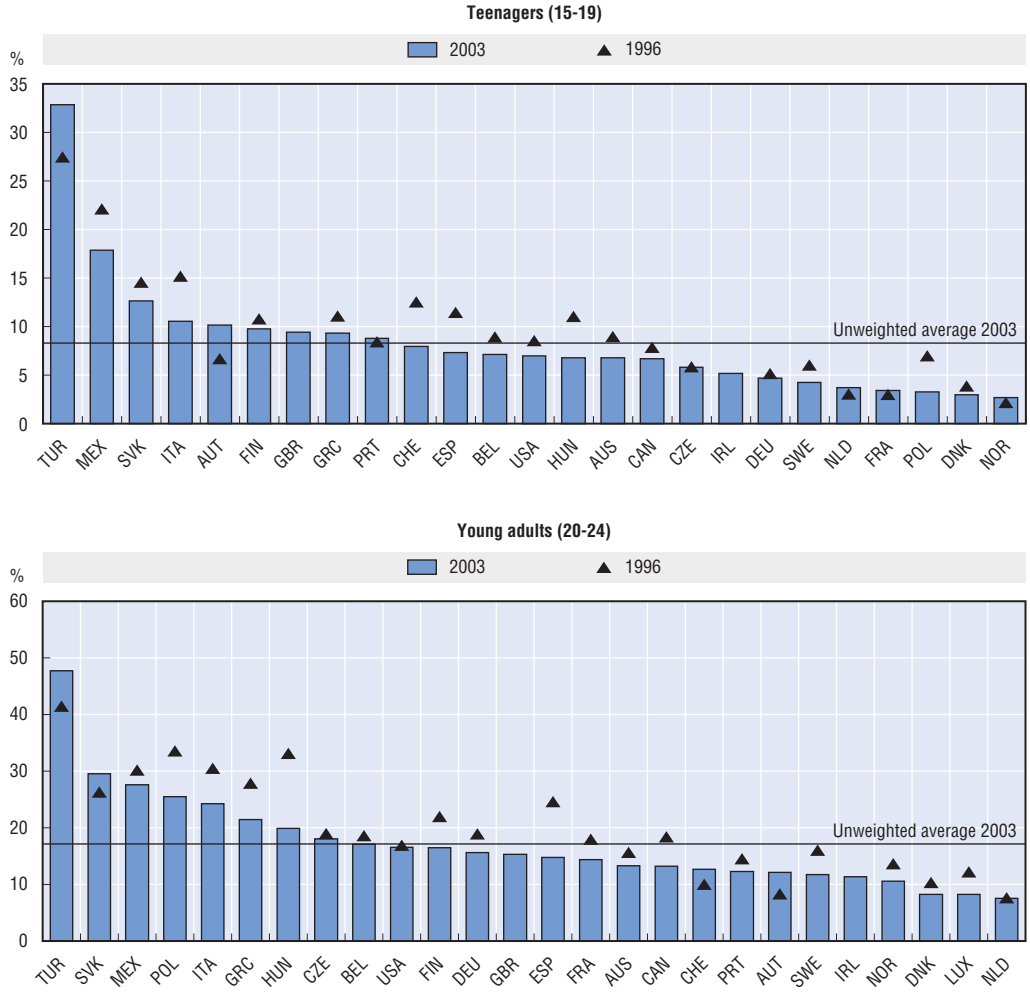
Several countries have reinforced their educational systems with the aims of keeping young people in school until they obtain at least an upper secondary degree and of helping them to enter the labour market with better skills. While different approaches continue to co-exist across OECD countries, the predominant strategy has been to strengthen vocational training (*i.e.* curricula which emphasise the acquisition of practical, work related skills). For example, Australia initiated new vocational education and training programmes in 1996 which have since expanded rapidly. The primary aim of these programmes is to increase retention at school, until an upper secondary qualification has been acquired, while also preparing young people for the workplace. These programmes are also intended to open up possibilities for further education (see Anlezark *et al.*, 2005).

Dual schooling systems represent an alternative to vocational courses taught entirely in school setting. In the dual system, school-based learning time is associated with apprenticeships in enterprises. Although Austria, Denmark, Germany and Switzerland have long operated dual systems, the sustained good performance of these systems, as regards achieving low levels of youth unemployment, means that they continue to attractive considerable attention as potential models for reforming upper secondary education in countries where the school-to-work transition functions less smoothly. Norway is a notable example of a country who recently introduced ambitious reforms inspired, in large part, by these models (Box 4.1). While such a reform strategy may hold considerable promise, countries considering reforms to their educational system that expand the role played by apprenticeship should take at least two issues into consideration, however:

- The difficulty of instituting or expanding apprenticeships tied to upper secondary education, in countries without a tradition of such measures, is not to be underestimated. For example, the long history and institutional complexity of German apprenticeships suggest that apprenticeships may only be able to thrive in the presence of powerful employer associations and with the active involvement of all social partners.

Figure 4.6. **Share of young adults and teenagers neither in education nor in employment, 1996 and 2003**

Percentages



Note: For France, Italy and the United States, data refer to 2002 instead of 2003; for Germany, Finland and the Netherlands, data refer to 1997 instead of 1996; for Austria and Italy data refer to 1998 instead of 1996; for Ireland and the United Kingdom, data are not available for 1996.

Source: OECD database on Labour Market Status by Educational Participation.

Statlink: *http://dx.doi.org/10.1787/183278352480*

- Even where dual systems are already well established, it is a constant challenge to ensure that the types of training offered meets ever-changing labour market demands. A related concern is to ensure that employers will continue to offer a sufficient number of apprenticeship places – a topic currently receiving much attention in Germany, where there has been debate about whether additional public financing or new educational forms will be required.

In order to guarantee that a sufficient number of apprenticeship places are available, it is crucial to maintain employers' interest and involvement. In this respect, the level of *apprenticeship pay* is an important element in co-financing of dual training systems. The evolution of German apprenticeship wages and participation in the dual system suggests that the willingness of firms to take on apprentices can be increased by setting apprentice wages substantially below the minimum wage level for adult workers.

Box 4.1. **The reform of vocational education and training in Norway**

In 1994, the Norwegian government introduced important changes in the vocational education system directed at reducing school drop-outs and establishing a stronger link between school instruction and training at the workplace. The reform gave students a statutory right to three years of secondary education, including an apprenticeship. The upper secondary school was reorganised so as to combine both academic and vocational education in the same physical area, most commonly in the same buildings. The "2 + 2" scheme introduced as part of this reform offers students in a vocational track the opportunity to receive two years of school instruction and to spend either one or two years as apprentices in an enterprise. If the student chooses a two-year apprenticeship, half of that time will be spent in productive work, for which the apprentice is paid.

The new system requires that school authorities in each county will find a sufficient number of apprenticeship places that accord with the wishes of the students. If sufficient places cannot be found, the authorities must, as an exceptional provision, arrange for this part of the students` education to take place in school. Common curriculum plans for both the school and apprenticeship parts of the vocational track were developed.

Measures for institutional collaboration on a local level were established through so-called Training Circles and Offices for Vocational Training. These represent organised co-operation between two or more enterprises having a common need for trained workers or having decided to offer apprenticeship training jointly. The municipal school authorities have a secretariat that provides support and help in establishing and running the circles and offices. On the local level there is little or no formal organised co-operation between the enterprises offering apprenticeships and the schools. This does not mean that there is a complete lack of contact between the schools and the workplaces, only that the initiative for establishing co-operation is placed on each individual school teacher and each instructor in enterprises which take on apprentices. In fact, there are teachers in most schools who, as a regular part of their job, maintain such contacts with local employers.

Sub-minimum wages for youth might be justified by the existence of a training component over the transition period from school to work, even in the absence of a formal apprenticeship system. However, it is difficult to ensure that the training quid-pro-quo if offered in such a context. Furthermore and as shown in Chapter 7, the impact of minimum wage legislation on youth employment is theoretically ambiguous. While a high minimum wage may increase school dropouts and therefore labour force participation, it can also adversely affect recruitment prospects. Several cross-country or cross-region empirical studies have identified negative effects of minimum wages on youth employment (*e.g.* OECD, 1998; Neumark and Wascher, 1999), but others have failed to do so (*e.g.* Card and Krueger, 1995). Overall, the conclusion drawn on this topic in Chapter 7 is that, while significant negative effects may be found, in some cases, there is no clear cross-country empirical effect of minimum wages on youth employment.

Welfare-to-work and activation policies

For youth who leave school without an upper secondary educational qualification, access to stable employment can be difficult to obtain. While the educational policies described in the previous section address the problem at its root, active labour market programmes represent an important option for school dropouts who are already out of the educational system. Over the past two decades, policy effort has focused more and more on

the interaction between passive and active measures, following the "mutual-obligations" principle (see Section 2 of Chapter 3). Youth have often been one of the groups most intensely targeted by these measures.

For instance, the European Union's Employment Strategy, as formulated in 1997, called for job search assistance to be offered to youths before six months of unemployment have passed (12 months in the case of adults). EU countries with major programmes for youth that come into play before or at six months threshold include Austria, Belgium, Denmark, France, Germany, Italy, Portugal, Spain and the United Kingdom. Sweden uses a shorter period (90 days), and youth activation in Finland, for those without a vocational qualification, starts immediately. Several non-EU countries (Australia, New Zealand and Norway) also target programmes on young unemployed after six months.

There is some evidence from evaluation studies to suggest that the well being, both pecuniary and psychological, of youth is improved when they are subject to immediate activation as part of a well-designed programme based on the principle of mutual obligations (Magnac, 1997). While results are somewhat mixed, the balance of the evidence suggests that participation increases the likelihood of finding employment, at least for some of the most ambitious programmes, (*e.g.* the New Deal for Young People in the United Kingdom[15] and Work for Dole in Australia[16]). However, several evaluation studies conclude that these types of labour market programmes have only limited effectiveness in helping *very* disadvantaged youth into the labour market (see Glyn and Wood, 2001).

In terms of content and design, successful programmes appear to share some characteristics (see Martin and Grubb, 2001; and Betcherman *et al.*, 2004):

- Job-search assistance programmes are often found to be the most cost-effective for youth, providing positive returns in the form of higher earnings and employment. Some wage and employment subsidy programmes have yielded positive returns, but these types of measures tend to perform poorly in terms of their net impact on the future employment prospects of participants.
- Training programmes should be carefully tailored to local or national labour market needs. In this respect, mobilising and involving the private sector and community leaders to assess local or national demand for skills is important.
- Good targeting of the programmes is important. For instance, there is a need to distinguish between teenagers and young adults, and to devote particular attention to early school leavers. The most desirable solution to the employment problems of teenagers is to help them to remain in (or return to) school, whereas for young adults in their twenties, it is more important to help them to acquire work experience.
- It is important to make participation in programmes compulsory for youth after a period of job search of no more than six months. While this may imply an increase in costs and a reduction in the average effectiveness of the programmes,[17] making participation compulsory is likely to be the only way to ensure that the programmes reach the youth who are most at risk of social exclusion.

Large-scale job creation and promotion

Direct job creation schemes are often used as a complementary policy tool which can provide youth with work experience. The most recent programmes focus on requiring that the jobs created meet new or unsatisfied needs and providing appropriate support services to the participants (*e.g.* career guidance and counselling).

Overall, these programmes tend to be effective in the short-run, in that they directly place young people into jobs. For example, during the experience with *Nouveau Service Emplois Jeunes* in France – a large-scale programme of direct job creation in the non-profit sector – the youth unemployment rate fell from 28.5% in 1997 to 20% in 2002.[18] However, these types of programmes tend to be very costly and the evidence suggests that they generally are not effective at improving the labour market chances of disadvantaged youth in the long run.

Subsidised private-sector employment has also been used as a tool to address youth unemployment. It is not clear whether subsidies to employment create many net new jobs. Instead of increasing total employment, firms may simply substitute subsidised for unsubsidised workers – the "substitution effect" – or hire subsidised workers whom they would have hired even in the absence of the subsidy (the "dead-weight effect"). The available evidence shows that subsidies to employment often are subject to large deadweight loss and substitution effects, and hence have small overall net employment gains. However, substitution effects may be justified on equity grounds, when they provide the most disadvantaged groups with work experience and earnings. Little evidence is available on the impact of subsidised employment on the subsequent job and earnings prospects of young people, but it appears that programmes that alternate subsidised work within enterprises with training in specialised institutions are the most effective at fostering transitions into the regular labour market.

Lessons

The attention paid by the 1994 Jobs Strategy to the reduction of early school-leaving and the improvement of school-to-work transitions continues to be well placed. Several OECD countries have enacted important reforms along these lines – notably by introducing new forms of apprenticeships designed to increase school retention rates and reduce the share of youth who are neither in employment nor in education. However, countries that reform their educational systems in this direction should pay particular attention to ensuring the availability of a sufficient number of apprenticeship places by providing employers with the right incentives to participate in these schemes.

For those youth who are already out of the educational system and are experiencing unemployment, targeted active labour market programmes can play an important role. However, their cost-effectiveness needs to be monitored closely, especially in terms of their success at helping the most disadvantaged youth find jobs. These programmes should focus on job-search assistance activities which are often found to be the most cost-effective measures for youth, providing positive returns on both earnings and employment. Where training is envisaged, it should be designed with employers' hiring requirements in mind. Good targeting and tight work availability requirements are also important design features to help contain overall costs, while guaranteeing focus on the neediest.

1.4. Promoting employment prospects of immigrants

In many countries, immigration is seen as one possible route to alleviate the adverse consequences of ageing populations, in conjunction with other policies. For this to be a feasible policy option in the future, it is clearly necessary that the current stock of immigrants – many having arrived only recently –, their children, and future arrivals be in some sense well "integrated" into the societies of OECD countries.[19] In sum, policies to improve the situation of immigrants on the labour market have taken on greater urgency since the OECD Jobs Strategy was formulated in 1994, and this is so for both economic and social reasons.

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Integration into the labour market means that gradually, as immigrants pick up the host-country's language and work practices, they tend to show the same range of labour market outcomes as native-born persons with similar characteristics. This applies in particular to immigrants who arrive in the host country without pre-arranged work, such as family and humanitarian migrants or persons arriving as permanent immigrants selected on the basis of certain characteristics. The situation is different for migrants who have a job waiting for them in the host country; for them, the issue is whether they are adaptable in the face of a changing economy.

Table 4.4 shows that the unemployment rate of immigrants is generally higher than that of the native-born. However, it is only slightly higher in some countries, whereas it is as much as three times higher in others. Immigrants' employment is also generally more sensitive to economic conditions than that of the native-born.[20] What characterises "successful" countries from those where results are not as good is, to a certain extent, the fact that the former have a significant proportion of highly qualified labour migrants whose outcomes are favourable and tend to counterbalance those of other categories of migrants. Humanitarian and family inflows tend to have a smaller weight in these countries. Nonetheless, good overall labour market conditions and employment policies can play a significant role in facilitating integration, as can measures specifically intended to assist migrants.

There is a general perception that the labour market integration of immigrants has become more difficult. But here one needs to be careful. If one compares a period when migration for economic reasons is predominant (the 1960s) with one when migration consists more of humanitarian and family migration (the 1990s), then inevitably it will look as if outcomes are deteriorating for recent arrivals and indeed, overall. In addition, the situation differs across countries. In the countries of southern Europe, for example, which have seen high flows of labour migration in recent years, the current employment rates of new arrivals are even higher than those of the native-born population. In most other European countries, flows have been largely humanitarian and family-related for some decades, and although the differences in employment rates relative to the native-born are a cause for concern, they have improved significantly in many countries over the past decade (Table 4.5). The negative perception about progress reflects in part the fact that the immigrant population itself is more visible due to the large numbers which have arrived over the 1990s, that certain channels of entry have been abused and that the outcomes themselves still leave much to be desired, especially for children of immigrants in some countries.

The available evidence suggests that integration problems mainly concern the entry of immigrants into the labour market and over qualification. Once a foothold is acquired in the labour market, wage progression seems to be less of a problem, although initial wages following arrival tend to be relatively lower than in the past. This seems to be especially the case for highly-skilled immigrants, whose previous foreign experience is often not recognised by employers. Similarly, discrimination seems to be mainly a problem with respect to access to employment, less with respect to wages, especially for the lower skilled. Employment rates are especially low among immigrant women from countries where female participation is also low.

Table 4.4. **Unemployment rates of the native- and foreign-born populations, 15-64 years old, 2004**[a]

	Native-born	Foreign-born	*Ratio*[b]
Men			
Australia	6	6.5	*1.1*
Austria	4.3	11.2	*2.6*
Belgium	5.6	15	*2.7*
Canada	5.5	6.6	*1.2*
Denmark	4.4	14.4	*3.3*
France	8	13.6	*1.7*
Germany	10.3	18.3	*1.8*
Greece	6.5	6.7	*1*
Ireland	4.9	6.5	*1.3*
Italy	6.4	6.1	*1*
Netherlands	3.6	10.3	*2.9*
Portugal	5.7	9.9	*1.7*
Spain	7.8	11.4	*1.5*
Sweden	6.2	13.9	*2.3*
United Kingdom	4.7	7.3	*1.5*
United States	6.9	5.8	*0.8*
Women			
Australia	6.1	6.5	*1.1*
Austria	4.3	10.7	*2.5*
Belgium	7.5	15	*2*
Canada	4.9	6.8	*1.4*
Denmark	5.2	10.3	*2*
France	9.9	17.2	*1.7*
Germany	9.6	15.2	*1.6*
Greece	15.7	18.9	*1.2*
Ireland	3.6	5	*1.4*
Italy	10.1	13.1	*1.3*
Netherlands	4.3	10.6	*2.5*
Portugal	7.4	9.6	*1.3*
Spain	15.1	17.1	*1.1*
Sweden	5.2	12.2	*2.3*
United Kingdom	3.9	7.3	*1.9*
United States	5.5	6.8	*1.2*

a) Data refer to 2003 for Australia and to 2002 for Canada.
b) Ratio of foreign-born to native-born unemployment rates.
Source: Australian Labour Force Survey for Australia; OECD calculations based on the Survey of Labour Income Dynamics (SLID) for Canada; on the European Union Labour Force Survey (EULFS) for the European countries; and on the Current Population Survey (CPS) for the United States.

Statlink: *http://dx.doi.org/10.1787/272437345663*

Measures to improve integration into the labour market

Selecting migrants carefully before they arrive clearly has a positive impact on integration, precisely because the immigrants concerned are selected with a view to ensuring better results on the labour market. However, many immigrants, such as recognised asylum seekers or family migrants, are admitted on the basis of international agreements or generally recognised human rights. Outcomes for these groups tend to be not as good and convergence with outcomes of natives tends to take longer than for directly selected immigrants. Indeed, in many of these cases, convergence does not occur even after ten or more years.

Table 4.5. **Employment rates of native- and foreign-born populations, 15-64 years old, 1994 and 2004**

	1994[a]		2004[b]	
	Native-born	Foreign-born	Native-born	Foreign-born
Australia	66.6	59.6	72.3	64.9
Austria	68.5	67.7	67.4	61.5
Belgium	56.8	46.3	62	50.2
Canada	70.1	68.2	74.6	68.5
Denmark	73.1	44.6	77.4	59.4
France	60.1	54.2	63.5	57.1
Germany	67.8	62.7	65.8	55.1
Greece	54.1	53.7	59.3	64
Ireland	52.8	49.2	65.7	64
Italy	50.8	57.9	57.4	63.5
Netherlands	65.6	47.7	75.1	59.1
Portugal	63.2	56.8	67.8	70.1
Spain	45	45.3	60.3	66.2
Sweden	75.2	53.6	74.3	61.3
United Kingdom	68.5	58.4	72.4	63.4
United States	69.8	63.8	69.1	68.5

a) Data refer to 1995 for Austria and Sweden, to 1993 for Australia and Canada, and to 1992 for Germany.
b) Data refer to 2003 for Australia and to 2002 for Canada.
Source: Australian Labour Force Survey for Australia; OECD calculations based on the Survey of Labour Income Dynamics (SLID) for Canada; on the European Union Labour Force Survey (EULFS) for the European countries; and on the Current Population Survey (CPS) for the United States.

Statlink: *http://dx.doi.org/10.1787/404761701412*

Acquisition of the host-country language after arrival is clearly a key element in the ability of immigrants to enter the labour market and most countries offer language training to humanitarian migrants and in some cases, to other migrants who do not have a mastery of the host-country language. The duration of language training is an issue, because employers tend to value host-country work experience and prolonged language training delays entry into the labour market. The association of vocational and language training has been shown to contribute in general to more favourable outcomes.

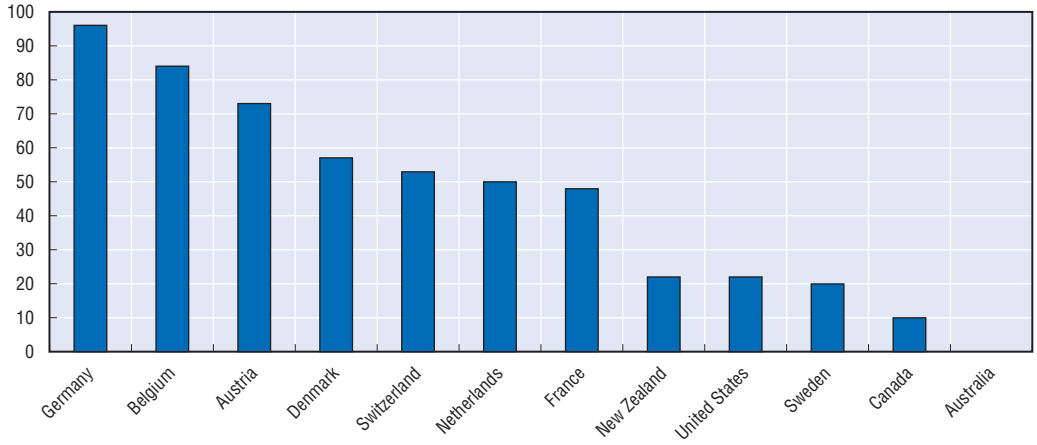
Immigrants upon arrival may have qualifications and work experience obtained in their country of origin, which employers may not always know or be equipped to recognise the value of. Programmes that ensure some recognition of qualifications and prior work experience, or that enable immigrants to obtain work experience in the host country, are often a necessary prelude to a successful entry into more permanent work. Still, evidence indicates that even after long stays in the host country, immigrants tend to occupy jobs that do not correspond to their formal qualifications to a significantly greater extent than the native-born.

Immigrants are also at a disadvantage with respect to job search, because many jobs are filled through networks or informal contacts, which recent immigrants will generally not have to the same extent as natives. In difficult economic conditions, the use of such networks apparently becomes greater, so that immigrants are disadvantaged even further. The development of such networks can be facilitated through immigrant and employer associations and the involvement of labour unions. The stock of past immigrants, if it is large and well-established, can also constitute an effective job network and reduce the costs of migration.

The second generation

For the children of immigrants, the so-called "second generation", one would expect, at the very least, outcomes similar to those of natives with the same socio-economic background. In many ways, the outcomes of the second generation can be viewed as the "benchmark" for the long-term success of integration policy, since migration-related labour market impediments such as lower language proficiency or non-recognition of qualifications or of experience should not in principle operate. Success of the second generation in the educational system and eventually, in the labour market, depends on how well the educational system assists children whose native language is not that of the host country or whose parents may not always be able to support effectively their children's educational progress. Educational success is to a certain extent a function of parental education, but downstream educational and labour market outcomes will reflect how educational systems temper or compensate for the impact of home disadvantage. PISA (Programme for International Student Assessment) results show large country differences in the relative performance of immigrant and non-immigrant children (see Figure 4.7), differences which tend to decline if the socio-economic background of the household is taken into account. Further measures to better accompany children of immigrant parents would appear to be necessary in some countries.

Figure 4.7. **Differences between the PISA reading scores[a] of natives[b] and those of children of immigrants, youth aged 15 years, 2003**



PISA: Programme for International Student Assessment.
a) The mean score across all OECD countries was set at 500 points, with a standard deviation of 100 points.
b) "Natives" here refers to children with native-born parents.
Source: OECD calculations based on the OECD PISA database. Statlink: *http://dx.doi.org/10.1787/818513315507*

One reason for the generally unfavourable labour market outcomes of immigrants and their children is discrimination, especially in situations when the immigrants or their offspring are or remain in some sense "visible". This has been demonstrated on a number of occasions by "testing" procedures, in which candidates with formally identical backgrounds except for origin or ethnicity apply for advertised jobs. It is particularly pernicious, because it violates the fundamental tenet of equal opportunity and can result in a reduced investment in human capital on the part of immigrants and their children. This can create a vicious circle in which discriminatory behaviour towards young immigrants or their children develops or is reinforced by their unfavourable employment

outcomes which in turn result in their demotivation. Discrimination, however, is in general difficult to demonstrate in practice. It requires constant vigilance on the part of public authorities and programmes to ensure public awareness of the issue.

2. Assisting workers in disadvantaged regions

With respect to lagging regions, the 1994 Jobs Strategy recommended to decentralise wage-setting in order for wages to better reflect regional and local conditions. Such wage flexibility was seen as particularly important in countries with low regional mobility, notably some European countries. In addition, as discussed in the following pages, specific/targeted policies may also be needed to improve job opportunities for workers living in depressed regions. The contribution that regional migration may play in reducing employment disparities is also discussed, as well as potential barriers to migration arising from housing policies.

As already discussed in Chapter 2, regional disparities in labour market performance vary significantly across countries. They are stubbornly high in Germany and Italy, where they correspond to a major regional divide, but also in Belgium and Turkey (Figure 4.8). The unemployment rate in low-unemployment regions, at around 3-5%, is very similar across countries.[21] By contrast, the unemployment rate in high-unemployment regions ranges from 4 to 27% in the various countries (Figure 4.9). High regional disparities generally coincide with high national unemployment and low employment, suggesting that reducing regional disparities is important to improve the overall labour market performance.

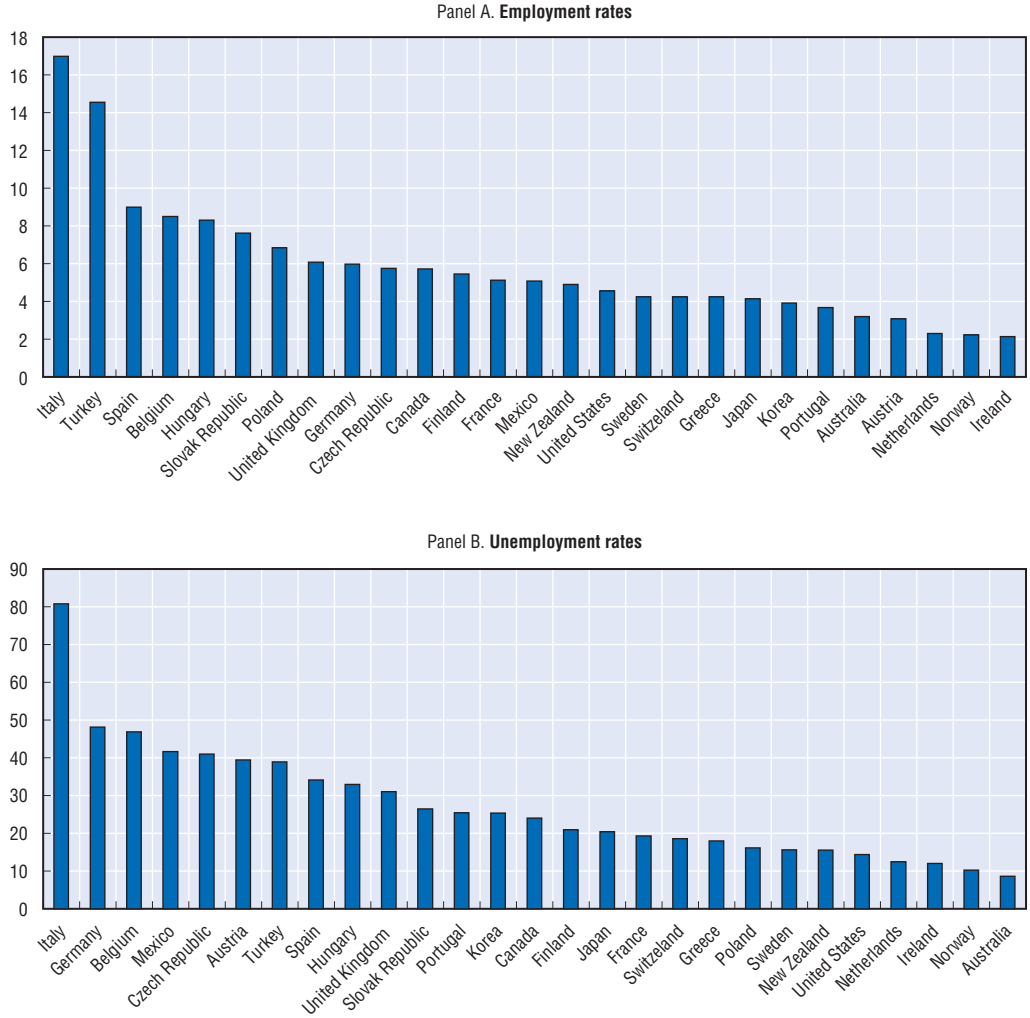
The evolution of regional employment disparities over the past decade also differed across countries, but disparities generally tend to be persistent in time and to cluster in space. The most striking evolution is Italy, where regional inequalities increased a lot (Figure 2.8). By contrast, regional disparities in unemployment rates fell in Germany, but remained quite high. Sizeable reductions also took place in Greece and Korea and significant ones in Japan and the United States. No clear correlation between the evolution of regional unemployment disparities since 1993 and that of the overall unemployment rate emerges. For example, despite a significant reduction in the overall unemployment rate, regional unemployment disparities increased over the past decade in Canada and Spain. Conversely, regional disparities in unemployment decreased in Germany, Greece and Japan, even as overall unemployment increased. Very often, it is the same regions which perform badly. About three out of four European and Asian/Pacific regions which had very low employment rates in 1993 compared with the national average where still in the same position in 2003. The figure is close to two out of three for the North American regions.

Reducing regional disparities in employment creation requires further emphasis on wage flexibility

One area of reform of labour market policies that continues to be particularly relevant to regional development is the wage-setting institutions (Chapter 3). Insufficient wage adjustment at the regional level may be partly responsible for the persistence of employment disparities. In general, regional disparities in employment are positively correlated with disparities in productivity levels (see Sestito, 2004, for Europe). Intermediary wage-bargaining systems – *i.e.* those relying mostly on industry-level bargaining, such as in Germany, Spain, and to a lesser extent Italy (OECD, 2004a, Chapter 3) – where outcomes are influenced mainly by the economic conditions prevailing in the leading sectors and regions, may create a gap between wages and productivity in

Figure 4.8. **Regional dispersion in labour market performance within OECD countries, 2003**[a]

Coefficient of variation[b]



a) 2000 for Japan, Korea, New Zealand and Switzerland.

b) The weighted coefficient of variation is defined as:

$\sqrt{(w_i * (ER_i - ER_n)^2)}/ER_n$

Where w_i is the share of the working-age population (labour force) in region *i* in the national working-age population (labour force), ER_i (UR_i) is the employment rate (unemployment rate) of region *i* and ER_n (UR_n) the national employment rate (unemployment rate). Regional level 2 sub-national regions where used except for Australia, Canada, Mexico, Turkey and the United States (regional level 1).

Source: OECD (2005), *OECD Employment Outlook*, Chapter 2, Paris.

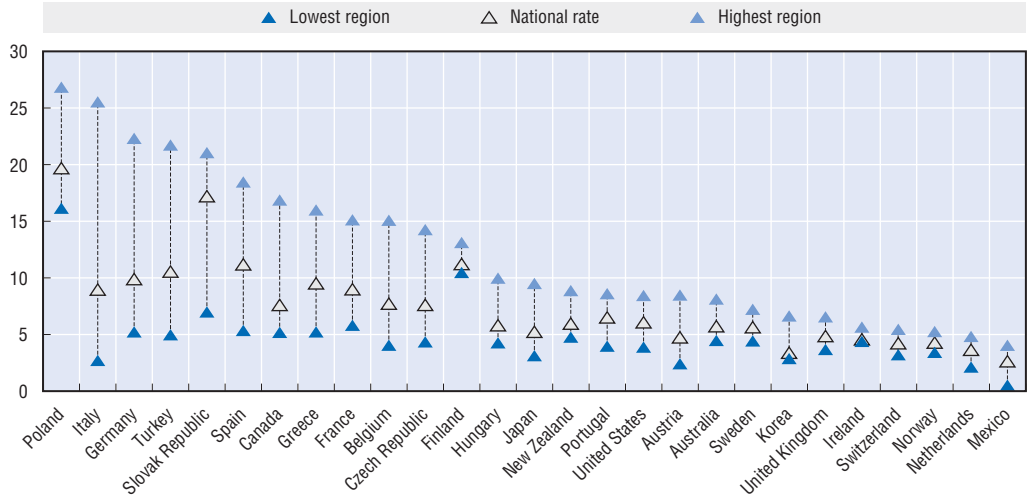
Statlink: *http://dx.doi.org/10.1787/348845662038*

lagging regions. Such a gap would reduce the incentives for investment in those regions. This has been put forward as a key factor behind North-South regional imbalances in Italy, and East-West imbalances in Germany in a number of studies.[22] Decentralising wage-setting could thus help in reducing regional employment disparities, by stimulating job creation in lagging regions.

In short, the 1994 recommendations regarding wage flexibility continue to be relevant, especially since – as noted in Chapter 3 – there is much scope for more progress in this area in several member countries.

Figure 4.9. **Regional unemployment dispersion and the overall unemployment rate, 2003**[a]

Unemployment rate in percentage



a) 2000 for Japan, Korea, New Zealand and Switzerland.

Source: OECD (2005), *OECD Employment Outlook*, Chapter 2, Paris. Statlink: *http://dx.doi.org/10.1787/343723238358*

Exploiting the productive potential of low-employment regions could also help

A shift-share analysis suggests that differences in regional production structures may also play an important role, particular in countries where regional disparities are high. Initial sectoral specialisation accounts for about 30% of the average employment growth differential between less performing and better performing regions in Italy, almost 50% in Germany and 40% in Spain (OECD, 2006a, Figure W.4.3).[23] Depressed regions could thus benefit particularly from general macroeconomic and structural policies (innovation, education, product market regulation, labour market, etc.) favourable to growth that stimulate the emergence of new activities.[24]

Policies to enhance regional productivity and employment levels may also be needed.[25] Programmes aiming at bringing investment and jobs to depressed areas through subsidies and tax concessions have been implemented in many OECD countries. Few rigorous evaluations of such programmes are available. The available evidence cast some doubt about the efficiency of many such schemes. In the case of the Enterprise Zones in the United Kingdom, for example, deadweight effects (*i.e.* jobs would have been created anyway) and regional displacement (*i.e.* firms setting up in the Enterprise Zones were simply relocating from neighbouring areas) appeared to be sufficiently large to imply that the net employment effect was very small. Improving infrastructure may be more effective in many instances. However, it is an empirical question, in each case, whether any particular infrastructure investments could enhance the region's growth potential in a cost-effective manner.

There may also be a role for devolving responsibility for some employment programmes to regions. More decentralisation of employment policies can be part of a strategy to enhance overall policy effectiveness, but may be especially useful for allowing local authorities to tailor programmes to better meet the specific requirements of depressed areas. However, available evidence suggests that this should be done within an agreed framework which sets clear objectives, and central government funding should be made dependent on the achievement of the agreed objectives.

Housing as a potential barrier to regional mobility

The movement of workers from depressed regions to better performing regions could, in principle, play an important role in reducing regional employment disparities. In practice, however, this role seems quite limited in most countries. Working-age individuals are much less mobile in European countries than in the United States and Australia (Figure 4.10, Panel A).[26] Besides, a relatively small proportion of internal gross flows corresponds to a redistribution of the working-age population among regions: net internal migration flows are quite low, below 0.3% in most cases (Figure 4.10, Panel B). Finally, looking at the direction of inter-regional migration flows over the 1998-2003 period, they do not always contribute to re-equilibrating regional employment disparities. In a majority of countries, working-age migrants tend to move from low-employment to high-employment regions and from high-unemployment to low-unemployment regions. But in others, migration flows tend to reinforce regional disparities for one of the two measures (employment or unemployment) and on both counts, as in the Czech Republic, France and the Netherlands.[27] This somewhat counter-intuitive result indicates that job opportunities are not the only, and perhaps not even the main, motivation for internal migration in those countries.

Mobility is not an end in itself, and there are probably some limits to the role it can play in reducing employment disparities.[28] Still, there may be some room to reduce barriers to mobility that are created by current housing policies:

- In addition to potential capital losses, home-owners deciding to move also often face sizeable transaction costs, under the form of stamp duties, legal fees, administrative fees and also real estate fees. Stamp duties are particularly high in Belgium and Greece, while agency fees and other non-tax fees are substantial in Portugal and also relatively high in Canada, France and the United States, possibly reflecting problems in the functioning of brokerage markets. Transaction costs tend to be lower in Nordic countries and even more so in the United Kingdom.
- Another factor potentially limiting regional migrations is that housing policies tend to favour home ownership over rental in most OECD countries, through a number of tax and subsidy incentives.[29] These policies contribute to high ownership rates in many countries (Table 4.6). Home ownership tends to reduce the mobility of workers since, due to higher transaction costs and the potential capital loss mentioned above, homeowners face higher costs of moving than renters.
- Another potential barrier lies in the functioning of social housing "markets". For social housing tenants (among which the low-skilled unemployed workers are likely to be over-represented), moving to a different region to take up a new job is likely to imply losing access to social housing, thus significantly reducing the incentives to move. The problem may have become less acute with the progressive shift observed in many countries from direct social housing supply to housing allowances, which have in principle no direct disincentive effect on mobility.[30] However, ways may also be found to increase the mobility of social renters, for example by waiving residency or queuing requirements in the case of unemployed persons taking up a job in a new region. Doing so would require tackling the coordination problem arising from the frequent division of responsibilities in social housing management across regions and/or localities.

Finally, high housing prices in booming regions in combination with a rising trend in temporary employment observed in a number of OECD countries (see Chapter 2) may also be hampering the mobility of workers. In a tight housing market, a worker with only a

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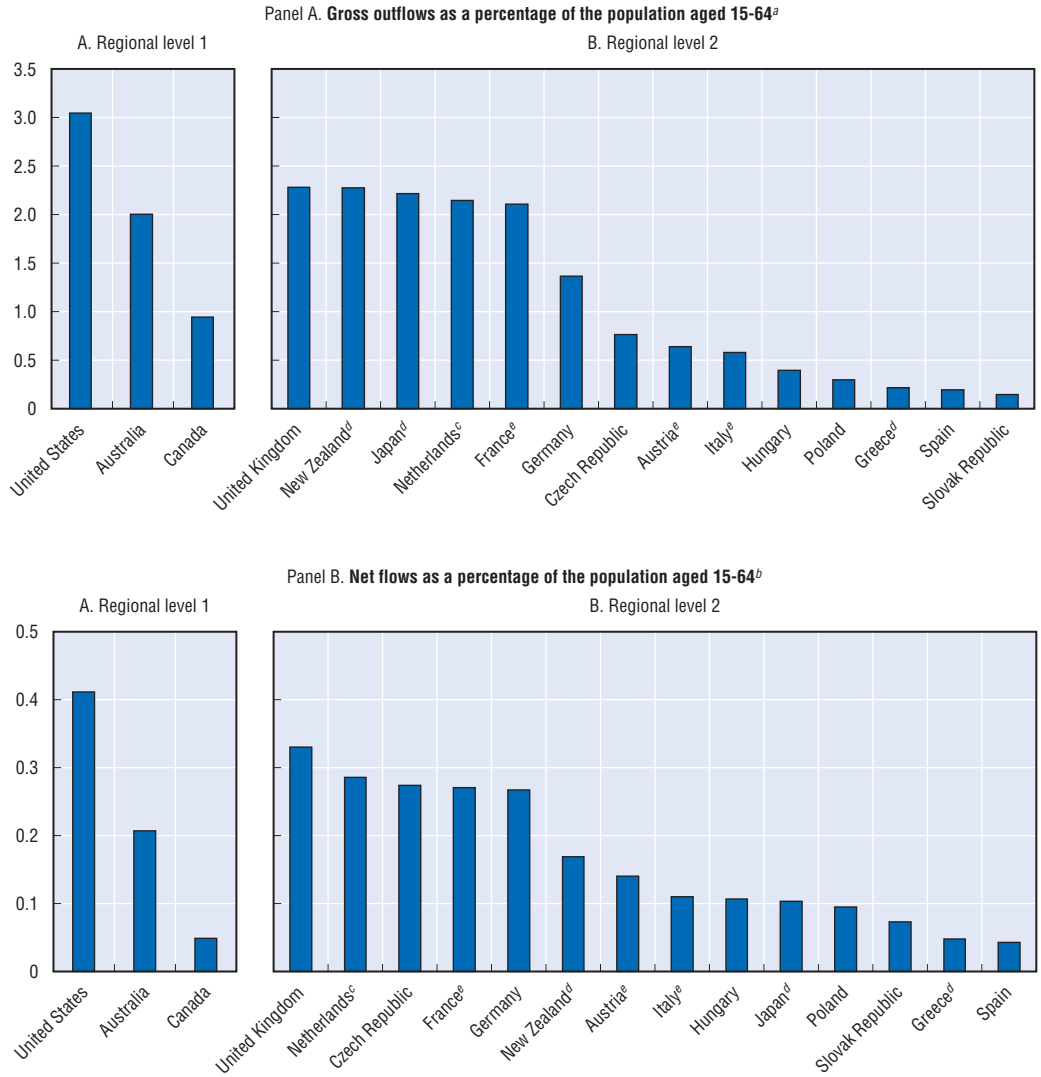
Figure 4.10. **Internal migration rates, 2003**



a) Except for Australia and Italy for which the population of reference is the total population and for Japan for which the population of reference is the population aged more than five years.
b) Total net migration rate is calculated as the ratio of the sum of the absolute values of regional net flows divided by two, to the total population aged 15-64.
c) 1999.
d) 2001.
e) 2002.

Source: OECD (2005), *OECD Employment Outlook*, Chapter 2, Paris. Statlink: *http://dx.doi.org/10.1787/180733165865*

temporary contract is likely to be turned away by many prospective landlords. This is also the case for low-paid workers with permanent contracts but no financial guarantee. Setting up guarantee schemes for such workers may be a way to alleviate this problem and increase the role that migration can play in reducing regional disparities in unemployment rates.

Lessons

Decentralising wage-setting to allow regional wages to better fit regional productivity was already identified in the 1994 Jobs Strategy as an important tool to reduce regional imbalances, and room remains for further action in this area. More differences between

Table 4.6. **Housing tenure in the early 2000s**

Percentages

	Owner-occupied	Private rented	Social rented	Others
Australia	70	20	5	5
Belgium	68	23	7	2
Canada	66	28	6	0
Denmark	51	26	19	4
Finland	64	15	17	4
France	56	21	17	6
Germany	41	44	6	5
Greece	74	20	0	6
Ireland	79	7	9	6
Italy	77	12	5	7
Netherlands	54	11	35	0
Portugal	76	15	7	2
Spain	81	11	0	8
Sweden	46	21	18	15
United Kingdom	69	10	21	0
United States	68	30	2	0

Source: OECD (2005), *OECD Employment Outlook*, Chart 2.A2.2, Paris.

Statlink: *http://dx.doi.org/10.1787/407465517848*

wages across regions could increase incentives for investment in the lagging regions and stimulate job creation. The positive effect of wage flexibility could be reinforced by the adoption of broader pro-growth macroeconomic and structural policies.

Reducing barriers to inter-regional mobility may help improve the allocation of labour resources while at the same time reducing labour shortages in high-employment regions. This requires greater attention to the interactions between housing policy and mobility incentives – an issue which should figure more prominently in the Jobs Strategy. First, housing transaction costs remain important in a number of countries, and measures could be taken to reduce stamp duties, administrative and legal fees, as well as real estate fees. Second, social housing systems could be reformed to better taking into account possible needs to move for job reasons. Finally, since temporary and/or low-paid workers – the groups most affected by non-employment problems in lagging regions – face significant difficulties in finding housing on a tight housing market, setting up guarantee schemes may improve their mobility.[31]

3. Facilitating transitions from informal work to formal employment[32]

In several OECD countries (and in much of the developing world), unemployment is a situation that many workers cannot afford. This is because the coverage of unemployment benefits is limited and overall household incomes are low. Often, the choice is between a declared job and work in the informal economy. Even in countries with better developed systems of social protection, informal employment may represent a common choice for certain groups in the work force.

The precise extent of informal employment is difficult to gauge.[33] In the case of Mexico, it is estimated that almost 18 million persons are employed in the informal economy, or 43% of total employment. The informal sector also appears to have grown in recent years. In Korea, Turkey and some countries of southern and eastern Europe, it is estimated that between 20 and 30% of wages are not declared. In other OECD countries, the overall rate of informal employment is much lower, but there is considerable undeclared work and earnings in certain sectors, like construction and personal services.

A high incidence of informal employment can have a detrimental effect on economic growth and living standards. It reduces the tax base for funding social programmes like education and health, which are important for building human capital and sustaining long-term economic growth. More generally, there may be a low-productivity/high-informality trap at work: to further expand (and get into higher value-added activities), small businesses may have to register, declare workers and pay taxes. For example, only formal businesses can have the access to legal protection, insurance and financial markets required to engage in larger scale and more complex activities. However, the perceived incentive to do this may not be high enough and the firm may renounce an opportunity to grow larger and upgrade its operations, thereby maintaining low productivity levels. In addition, a high incidence of informal employment makes it difficult to finance government spending and to effectively target and manage social protection. It may also be a source of corruption.

The issue of informal employment was not addressed when the OECD Jobs Strategy was formulated in 1994. At the time, Korea, Mexico and eastern European countries were not members of OECD, so there was less attention to the issue of informal employment among the membership. The arrival of new members, most of which have significant informal sectors, has changed the focus. However, informal employment is also a policy concern in some longer-standing OECD member countries. Increasing concern about irregular immigration – which is often associated with informal employment – has also heightened interest in this issue.

The relative taxation of wages versus profits of small firms

Employers have a financial incentive not to declare employment – or to under-declare employee compensation – when profit taxes are lower, or are more easily evaded, than labour taxes. By contrast, setting taxes on labour lower than taxes on profits, combined with good enforcement of profit taxes, creates an incentive for employers to deduct as much labour income as possible from gross revenues – thereby encouraging employers to declare the true wages and salaries of their employees. Taxes on distributed corporate profits remain low relative to taxes on labour in a number of countries (Joumard, 2001).

This relationship also suggests that the structure of social security contributions and taxes on low-wage employment should be reassessed in countries where there is a high incidence of informal employment. For example, some contributions are capped in Mexico and Turkey, thus generating a regressive pattern of labour taxes. A shift to progressive labour taxes (*i.e.* a system which taxes high-wage workers at a higher rate than their low-wage counterparts) may help support demand for low-skilled labour – the abundant resource in these countries – in the formal sector. However, low-wage workers should not be exempted from participation in social insurance schemes. One of the strongest motives workers can have to work in the formal sector is precisely to acquire entitlements to these benefits. Expanding the effective coverage of low-wage workers by these programmes would also serve social goals.

The importance of effective tax administration and providing adequate incentives to formality

Greater efforts to strengthen tax and labour inspections are also needed, since undeclared work among employees is to some extent explained by the weak tax assessment regime for small businesses and the self-employed. Enforcement can be

strengthened by reinforcing tax inspection services and improving information exchange among the various government departments concerned. For example, the tax and social security files are linked in the Nordic countries and the Netherlands, which have a rather low share of informal employment, and Korea is putting a lot of effort in that direction. Two additional ways to strengthen employers' incentives to properly declare labour earnings (which otherwise will be taxed as net profit) are to: *i)* make value added the relevant tax base; and *ii)* focus the tax collection strategy on upgrading business record-keeping and accounts, rather than on the detection of work relationship.

Since under-declaration of wages is often difficult without the collaboration of the workers, another strategy for encouraging the transition to salaried employment is to reinforce workers' incentives to work in compliance with the tax and regulatory system. As was previously mentioned, a key policy lever here is to make participation in social insurance schemes sufficiently attractive to workers. A complication with pursuing this strategy is that formal employment of the head of household suffices to provide an entire family with access to certain benefits, such as health insurance. This reduces the incentive of other earners within the family to declare their activity. By contrast, unemployment benefit entitlements are largely based on individual employment status and may thus reduce incentives for undeclared work, particularly when combined with proper controls ensuring that those receiving such benefits do not also engage in undeclared work.

The complex role of employment and minimum wage regulations

Employment protection legislation in some of the countries most subject to a high incidence of informal employment (like Mexico and Turkey) is relatively strict. Although protecting workers in the event of dismissal is especially important in cases where unemployment benefits are very limited or non-existent, overly strict EPL may make employers reluctant to "formalise" employment arrangements. Minimum wages can have much the same effect.

Relaxing regulations and reducing minimum wages is not necessarily a panacea for reducing informal employment. Indeed, strict regulation of employment relationships is often used as an indirect strategy to reduce evasion of taxes and social contributions by employers, although this becomes less necessary as tax administration improves.[34] Moreover, severance pay is practically the only form of compensation that currently exists in the face of job loss in the formal economy in some of the countries in question.

Lessons

Co-ordinated action across a number of fronts is likely to be necessary to reduce informal employment in countries where it is a serious problem. In most cases, this will include some or all of the following: making greater efforts to assess taxes and social security contributions (and applying sanctions to recalcitrant employers); moderating employment regulations where they are overly strict and minimum wages where they are too high; lowering taxes on low-paid work; and extending the social safety net, particularly unemployment benefits, to better cover low-paid workers.

Notes

1. A large number of empirical studies have shown that female labour supply is much more responsive to net wages than is male labour supply (Evers *et al.*, 2005).
2. Though their effectiveness may be reduced if women substitute formal for informal childcare.
3. See Anderson and Levine (2000) for the United States, Gustafsson and Stafford (1992) for Sweden and Del Boca (2002) for Italy. Some authors have questioned the direction of causality between childcare support and female participation: Chevalier and Viitanen (2002) and Gelbach (2002).
4. This section relies mainly on Duval (2004), Brandt *et al.* (2005) and OECD (2006c).
5. This recommandation was treated as part of the broad policy guideline of increasing working-time flexibility and received little attention for many years.
6. This discussion provides a synthesis of main lessons which emerged from the 21 country reports published in the OECD series on *Ageing and Employment Policies*.
7. For details on the assumptions underlying these calculations and the limits to their interpretation, see Duval (2003). For a full documentation of recent changes to old-age pension systems and early retirement schemes in OECD countries, see the country reports published in the OECD's series on *Ageing and Employment Policies*.
8. The 2003 value actually corresponds to the value the implicit tax rate will take once all currently legislated changes are implemented and once all existing pension systems have matured. It should be borne in mind that in some cases (*e.g.* Italy) these changes will be phased in over several decades.
9. For the Netherlands, the favourable tax treatment of early retirement schemes was abolished from January 2006. the calculations reflect a "typical" early-retirement (VUT) scheme.
10. Though this is the case in a number of OECD countries, the current adjustments are usually below actuarially neutral levels.
11. This section relies mainly on Quintini (2006) which provides a more detailed analysis.
12. In most of the discussion concerning labour market issues – particularly where data are based on official statistics and not derived from micro datasets – the analysis is restricted to young people between 20 and 24. In some cases, teenagers (aged 15 to 19) are also considered.
13. Looking at changes since 1998, the share of 16 and 17-year-olds who have already left the education system without an upper-secondary degree has tended to fall but remains rather high in several OECD countries (OECD, 2006a, Table W.4.1).
14. In part, this reflects the impact of compulsory schooling laws. It is interesting to note, that several countries which perform relatively well, in terms of young adults, show above average shares of teenagers neither in school nor working (*e.g.* Austria, Finland and the United Kingdom).
15. Wilkinson (2003) estimates the impact of the New Deal for Young People on the probability of being unemployed six months after reaching the qualifying time for the programme – coinciding with movement from the gateway period into the options. The results indicate, for men, a reduction in unemployment of around 30 000 and, for women, a reduction of around 9 000. A longer follow-up period produces a lower reduction in the probability of being unemployed, mostly due to the fact that some New Deal participants would have returned to claim unemployment benefits. Another study, by Blundell *et al.* (2001), finds that the New Deal for Young People (after four months spent in the Gateway stage) increased the probability of finding a job by 20%.
16. In Australia, evaluation studies offer mixed results (see for instance, Borland and Tseng, 2004; and the Department of Employment, Workplace Relations and Small Business evaluation, 2000). While evaluation studies carried out on the pilot conducted before the introduction of the programme showed relatively disappointing outcomes (Borland and Tseng, 2004), the evaluation carried out in 2000 by the Australian Government found some positive effects. The evaluation study underlines the need for further research but reaches the preliminary conclusion that Work for the Dole participants were more likely to leave income support than similar job seekers who did not participate in the programme (the prospects were 76% higher). In addition, Work for the Dole compared favourably with the suite of previous labour market programmes operating in the mid-1990s in Australia.
17. This is because those with less attachment to the labour market – that would not otherwise participate – will tend to have more difficulties in obtaining employment.
18. Note, however, that the NSEJ was implemented during a period of cyclical upswing.

19. Since they now constitute a significant proportion of the resident population in many OECD countries (Dumont and Lemaître, 2005; OECD, 2006a, Table W.4.2), immigrants' integration and that of their children into the labour market is also a precondition for ensuring social cohesion.

20. New arrivals are particularly affected by the economic situation. The labour market situation upon arrival tends also to have an impact on the employment of immigrants in the longer run, underlining the importance of early work experience.

21. Poland – and to a lesser extent, Finland – are exceptions.

22. See, for instance, Brunello *et al.* (2001), Davies and Hallet (2001), and De Koning *et al.* (2004) who also add southern Spain to the list.

23. Using similar analysis techniques, the educational attainment of the labour force also appears to explain part of the differences in regional employment rates. However, differences in educational attainment account for much less of the total differences in employment rates than do differences in sectoral specialisation, particularly in countries with high disparities. Differences in the age structure of the working-age population seem to play only a very minor role.

24. In this respect, it is important to note that reduced wages in these regions may increase out-migration incentives. This could further lower unemployment, but might be problematic for long-run regional development prospects if the most productive workers are over-represented among the persons leaving the region.

25. This possibility is suggested by the fact that improved overall unemployment performance does not automatically lead to a reduction in regional unemployment disparities, as was discussed above (*cf.* Figure 2.7).

26. Migration rates shown for Australia, Canada and the United States are at the state level; they would be higher if measured for smaller regions of a size comparable with that used for most European countries.

27. See OECD (2005a), Table 2.4, p. 91.

28. First, young adults and highly-educated persons are the most mobile groups. Gross migration rates of working-age individuals with tertiary education are two to four times higher than for those with less than upper secondary education, except in the United States where the differences are less marked (see OECD, 2005a, Table 2.4, p. 91). Increased out-migration may thus have the negative effect of de-skilling the regional work force, further weakening the regional growth potential. Second, large differences in housing prices across regions probably set some endogenous limits to migration flows. As housing prices often tend to be higher in dynamic regions than in lagging ones, moving from the latter to the former to take up a new job may imply an important cost for the worker, which reduces incentives to move. This is particularly the case for home-owners, for whom moving to a region with higher housing prices would entail an important capital loss and increased interest payments. To a large extent, these variations in housing prices across regions will always exist, thus slowing mobility.

29. Germany is the main exception.

30. In most OECD countries, housing allowances take some account of the variation of rent levels across regions, either through the actual rent paid, or through some area-based benefit levels.

31. As home owners always face higher costs of moving (transaction and potential capital loss) than renters, tax and subsidy incentives to home ownership could be further reduced. However, any such choice should be made in light of the positive aspects of home ownership.

32. This section relies mainly on Chapter 5 of OECD (2004a) which provides a more detailed analysis.

33. One reason for this is that informal employment takes many different forms, including both the under-declaration of activity that is not hidden from tax and regulatory authorities (*e.g.* concealment of some part of the total hours worked or earners of declared workers) and the total concealment of activities (*e.g.* black-market activities, including self-employed workers not declaring their activity).

34. In countries where tax authorities are unable to effectively monitor business accounts and employers often under-declare employment, earnings and hours, the labour inspectorate can play an active role in limiting the degree of under-declaration. Through periodic site inspections, the labour inspectorate can ascertain the approximate number of employees. If the minimum wage is set at a high level and the regulatory structure discourages job turnover and non-standard working hours, total compensation can be estimated by assuming all workers work full time and are paid the minimum wage.

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Chapter 5

Social Implications of Policies Aimed at Raising Employment

Have efforts to tackle high unemployment along the lines recommended by the 1994 Jobs Strategy, compromised other social goals, even as they helped to raise employment rates? Consistent with such concerns, wage dispersion has tended to increase in countries where unemployment has come down. However, employment gains have an offsetting effect on the distribution of household incomes, since many of the added workers are from lower income households. Consequently, overall income inequality and relative poverty have increased in some of the countries where unemployment has fallen, but decreased in others. Similarly, reductions in unemployment have coincided with increased low-paid and temporary employment in some countries, but the reverse is true in others. What is clear is that a significant share of low-paid and temporary workers find it difficult to climb the job ladder and/or experience frequent spells out of work, even as others successfully move into stable and better paying jobs.

While recognising the existence of a possible trade-off between labour market performance and the distribution of income, the 1994 Jobs Strategy stressed the importance of removing economic disincentives that undermined the effective use of labour resources. An early review of reform experiences suggested that several countries had been reluctant to implement comprehensive changes because of concerns that they could lead to an unacceptable widening of income and wage distributions (OECD, 1997a). Likewise, fears that reforms (notably recommendations to ease employment protection and render wage setting more flexible) could deteriorate job security, working conditions, pay and career prospects for certain groups were identified as important barriers to implementation.

The first part of this chapter evaluates whether the improvement in labour market performance in the 1990s has been accompanied by an increase of inequality and relative poverty. This question is analysed using time series on the distribution of household income that go back to the early 1980s for member countries where such data are available.[1] Building upon the trends discussed in Chapter 2, the second part of this chapter examines whether progress in meeting employment objectives has been associated with a marked deterioration in various dimensions of job quality. It also discusses how the Jobs Strategy agenda could be expanded to take into account job quality concerns.

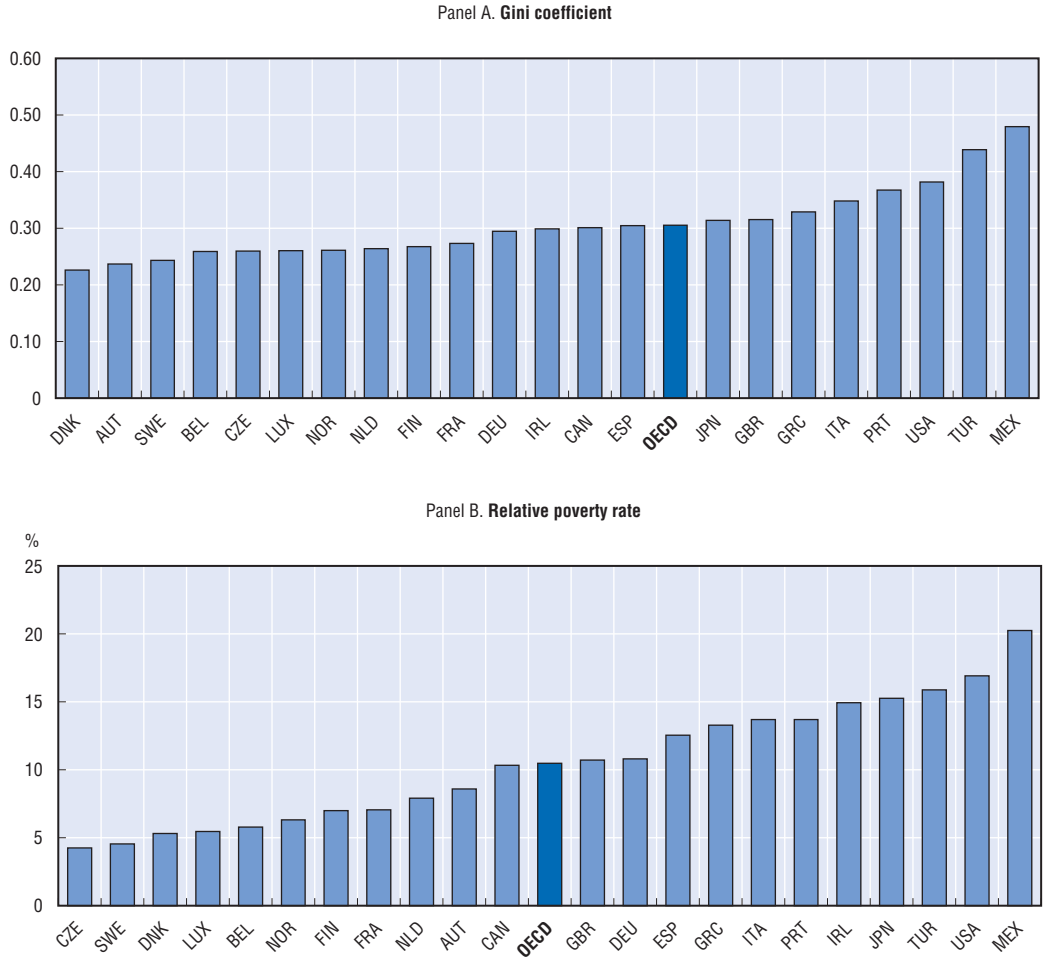
1. Trends in income inequality and poverty: the link to changes in labour market performance

In general, labour market reforms can affect the dispersion of income in two opposing ways. On the one hand, reforms of institutions and policies that result in higher employment will contribute to reduce income inequality. On the other hand, the purpose of some of these institutions and policies has been to redistribute income to needy households, and certain reforms could undermine their role in channelling resources to the weakest segments of society.

Inequality is multifaceted by nature and alternative measures of inequality and poverty can give different results. It is therefore important to base assessments about changes in income distribution on several measures that mutually reinforce each other rather than on a single measure that is contradicted by other measures. In the rest of this section, inequality and poverty measurements are calculated on the basis of the *household disposable income* (*i.e.* income after taxes and transfers). The results are summarised in synthetic tables grouping countries into those where a majority of indicators agree in identifying trends and those where little changes can be observed or alternative indicators and sources generate conflicting outcomes.[2] The detailed results corresponding to these tables are reported in Burniaux and Padrini (2006).

Before looking at trends, it is worth recalling that the degree of income inequality differs significantly across OECD countries (Figure 5.1, Panel A). For example, as measured by the Gini coefficient, income inequality at the household level was more than twice as

Figure 5.1. **Indicators of income inequality and relative poverty, 2001**[a]



a) 1999 for Australia, 2000 for Canada, France, Japan and Norway, 2002 for the Czech Republic, Germany, Mexico and Turkey.

Source: Förster and Mira d'Ercole (2005).

Statlink: *http://dx.doi.org/10.1787/005651245607*

high in Turkey and Mexico as in Denmark in 2000. Overall, inequality was lower in the northern European countries and higher in the southern European and English-speaking countries. Similar patterns were observed for relative poverty in 2000, with 17% of the population living under the poverty threshold (set at 50% of the median income) in the United States against 4% in Sweden. These patterns hold across alternative indicators of relative poverty and inequality.

For a number of OECD countries, the trend increase in household income inequality came to a halt or even reversed in the 1990s. Indeed, of the nine countries that experienced increases of inequality in the period before 1993-94, only Japan and the United Kingdom continued to see a widening of the income distribution (see Table 5.1). In a few countries where the income distribution had remained stable or become more compressed before 1993-94, there was a tendency for some widening in income dispersion thereafter. This was particularly the case for most of the Nordic countries and Canada. However, in a majority of countries, the income distribution narrowed or was stable after 1994, either in line or in contrast with previous trends.[3]

Table 5.1. **Trends of unemployment and overall income inequality**

		Period before 1993-94			Period after 1993-94		
		Unemployment rate			Unemployment rate		
		Decline	Almost constant	Increase	Decline	Almost constant	Increase
Overall income inequality	Decline	Canada Denmark		Greece Spain Sweden	France Italy Netherlands Spain	Portugal	Austria Germany
	Almost constant or unclear	Belgium Ireland Portugal		Finland France Luxembourg	Belgium Ireland Norway United States		Greece
	Increase	Netherlands United Kingdom United States	Austria Japan	Australia Germany Italy Norway	Canada Denmark Finland Sweden United Kingdom		Japan Czech Republic Luxembourg

Note: For the unemployment rate, "almost constant" refers to changes of 0.5 percentage point or less. The assessment of changes in overall income inequality is based on two different indicators (Gini coefficient, ratio of average income of 9th to 1st decile) and four different data sets: Förster and Mira d'Ercole (2005), the Luxembourg Income Study (LIS) data set, the European Community Household Panel (ECHP) data set and the Cross National Equivalent Files (CNEF) data set.

Statlink: *http://dx.doi.org/10.1787/356851500656*

Trends in the incidence of relative poverty were also more mixed after 1994, with the number of countries where relative poverty rates increased being almost equal to those where they declined or remained constant. The decline in relative poverty rates in most of the Nordic countries, Canada, Luxembourg and Spain during the decade prior to mid-1990s reversed during the past decade. By contrast, among the ten countries where relative poverty rates had increased prior to the mid-1990s, poverty rates stabilised or decreased in eight of them and increased further in Ireland and Japan after 1994 (Table 5.2).

Treating poverty as a *relative concept* (*e.g.* defining the poverty threshold as 50% of the median income, as is done here) has important implications for interpreting the results. Most fundamentally, changes in the relative poverty rate provide an indication of trends in the incidence of relative deprivation within a country, but are not informative concerning changes in the number of households with a low *absolute* standard of living.[4] During the periods considered in Table 5.2, real median income (and, hence, the real income level corresponding to the relative poverty threshold) grew in all of the countries considered, with the average annual increases ranging from 0.4% in Canada and Belgium to 3% and more in Portugal, Spain and Ireland (Table 5.3). Thus, the countries where relative poverty increased were characterised by a situation where incomes tended to grow more rapidly in the middle of the income distribution than near the bottom, but incomes and absolute living standards also tended to grow for low income households. Despite its limitations, the relative concept of measuring poverty is used in this report because it provides useful information about an aspect of income inequality that may be of considerable significance. Indeed, the methodological problems related to defining comparable absolute poverty thresholds across countries and adjusting those thresholds over time make it infeasible to conduct a parallel analysis for absolute poverty.[5]

Table 5.2. **Trends of unemployment and relative poverty**

		Period before 1993-94			Period after 1993-94		
		Unemployment rate			Unemployment rate		
		Decline	Almost constant	Increase	Decline	Almost constant	Increase
Relative poverty	Decline	Portugal Canada Denmark		Finland France Greece Luxembourg Spain Sweden	Italy Netherlands Norway	Portugal	Austria Greece
	Almost constant or unclear	Belgium			Belgium France United Kingdom United States		Germany
	Increase	Ireland Netherlands United Kingdom United States	Austria Japan	Australia Germany Italy Norway	Canada Denmark Ireland Finland Spain Sweden		Czech Republic Japan Luxembourg

Note: For the unemployment rate, "almost constant" refers to changes of 0.5 percentage point or less. The assessment of changes in relative poverty is based on two different indicators (proportion of individual with income below 50% and 60% of the median income, respectively) and four different data sets: Förster and Mira d'Ercole (2005), the Luxembourg Income Study (LIS) data set, the European Community Household Panel (ECHP) data set and the Cross National Equivalent Files (CNEF) data set.

Statlink: *http://dx.doi.org/10.1787/634587330640*

Table 5.3. **Real income growth associated with relative poverty thresholds**

	Period first year to last year	Average annual growth rate (percentage)
Ireland	1987-2000	5.47
Spain	1985-95	3.19
Portugal	1980-2000	2.98
Luxembourg	1986-2001	2.44
Norway	1986-2000	2.08
Finland	1976-2000	1.95
Greece	1974-99	1.78
Czech Republic	1992-2002	1.67
Austria	1983-99	1.49
OECD average		**1.49**
United Kingdom	1975-2000	1.45
Netherlands	1977-2000	1.02
Sweden	1975-2000	0.95
Denmark	1983-2000	0.85
Italy	1984-2000	0.77
Germany	1984-2001	0.71
Japan	1984-2000	0.71
United States	1974-2000	0.61
France	1984-2000	0.54
Belgium	1983-95	0.38
Canada	1975-2000	0.36

Source: Förster and Mira d'Ercole (2005).

Statlink: *http://dx.doi.org/10.1787/778132581741*

1.1. Income inequality and changes in unemployment and employment

A fall in unemployment brought about by some of the structural reforms discussed in Chapter 3 (*e.g.* increased flexibility in wage setting or stricter enforcement of work availability conditions for unemployment benefits) is often considered to be associated with increased wage dispersion. This conjecture is indeed supported by Table 5.4 that shows the relationship between the evolution of unemployment and gross earnings inequality, as measured by the ninth to first decile earnings ratio[6] of full-time, full-year workers. In a majority of countries, the reduction of unemployment after 1993-94 has been accompanied by an increase of gross earnings inequality. A negative relationship also appears during the period before 1993-94.

Table 5.4. **Trends of unemployment and gross earnings inequality across full-time workers**

		Period before 1993-94			Period after 1993-94			
		Unemployment rate			Unemployment rate			
		Decline	Almost constant	Increase	Decline		Almost constant	Increase
Gross earnings inequality	Decline	Korea	Japan	Australia Finland France Germany	Ireland Spain			Japan
	Almost constant or unclear							
	Increase	Denmark Netherlands United Kingdom United States	Austria	Italy New Zealand Sweden	Australia Canada Denmark Finland France Hungary Netherlands	New Zealand Norway Sweden United Kingdom United States	Switzerland	Czech Republic Germany Korea Poland

Note: For the unemployment rate, "almost constant" refers to changes of 0.5 percentage point or less. The assessment of changes in gross earnings inequality is based on one indicator (measured by the ratio of the 90th to 10th percentile earnings, full-year, full-time workers).
Source: OECD database on Labour Force Statistics; OECD Earnings database.
Statlink: *http://dx.doi.org/10.1787/728318224852*

However, employment gains cause an offsetting effect on the distribution of household-level income from wages and salaries, since many of the added workers are from lower income households. In fact, the distribution of *gross labour earnings across all households (including non-working households)*,[7] suggests a tendency for inequality to decrease when unemployment declines (as shown by countries in the shaded diagonal of Table 5.5). This relationship between labour earning inequality across all households and unemployment changes is even more apparent when inequality is measured for the sub-population in the three bottom deciles of the earnings distribution (see Burniaux and Padrini, 2006). However, this may not be a stable pattern, since the decline in gross earning inequality in most countries witnessing a fall of unemployment after 1993-94, contrasts sharply to what happened during the previous period.

The redistributive impact of transfers and taxes refers to the extent to which transfers and tax systems compensate the inequality of the distribution of labour and capital earnings.[8] As Table 5.6 shows, the redistributive power of transfers tended to decrease in the context of

Table 5.5. **Trends of unemployment and labour earnings inequality across all households**

		Period before 1993-94				Period after 1993-94			
		Unemployment rate				Unemployment rate			
		Decline	Almost constant	Increase		Decline		Almost constant	Increase
Inequality	Decline		Spain			Belgium Denmark Finland Ireland Italy	Netherlands Spain United Kingdom		Austria
	Almost constant or unclear	Belgium Netherlands		Sweden		France Norway Sweden United States		Portugal	Germany Greece
	Increase	Canada Denmark Ireland Portugal United Kingdom United States	Japan	Australia Finland France Germany Greece Italy	Norway Switzerland	Canada		Switzerland	Czech Republic Japan

Note: For the unemployment rate, "almost constant" refers to changes of 0.5 percentage point or less. The assessment of changes in labour earnings inequality is based on one indicator (Gini coefficient calculated over the entire household population, including non-working households with zero earnings) and four different data sets: Förster and Mira d'Ercole (2005), the Luxembourg Income Study (LIS) data set, the European Community Household Panel (ECHP) data set and the Cross National Equivalent Files (CNEF) data set.

Statlink: *http://dx.doi.org/10.1787/830488500555*

Table 5.6. **Trends of unemployment and transfers' redistributive impact**

		Period before 1993-94				Period after 1993-94			
		Unemployment rate				Unemployment rate			
		Decline	Almost constant	Increase		Decline		Almost constant	Increase
Redistribution	Decline	United Kingdom				Belgium Canada Denmark Finland Ireland	Netherlands Norway Spain United Kingdom United States		Austria
	Almost constant or unclear	Netherlands Portugal		France Italy Switzerland		France Sweden		Portugal	Greece
	Increase	Belgium Canada Denmark Ireland United States	Japan	Australia Finland Germany Greece Norway Spain Sweden		Italy		Switzerland	Czech Republic Germany Japan

Note: For the unemployment rate, "almost constant" refers to changes of 0.5 percentage point or less. The assessment of changes in transfers' redistributive impact is based on three different methods of inequality decomposition of the Gini coefficient [additive, Shorrocks' method, subtractive, see Burniaux and Padrini (2006)] and four different data sets: Förster and Mira d'Ercole (2005), the Luxembourg Income Study (LIS) data set, the European Community Household Panel (ECHP) data set and the Cross National Equivalent Files (CNEF) data set.

Statlink: *http://dx.doi.org/10.1787/736384642711*

falling unemployment. This results from changes in the share of aggregate transfers in total disposable income as well as changes in the relative weights of different types of transfers. When unemployment declines, the share of transfers in total disposable income is reduced in line with falling joblessness while the distribution of transfers becomes more unequal reflecting the increasing weight of transfers other than unemployment benefits that are by nature more unequally distributed, *e.g.* pensions. Here too, the relationship is stronger for the low-income population (see Burniaux and Padrini, 2006).

In contrast, no clear relationship appears after 1993-94 between changes in the redistributive impact of taxes and unemployment changes (Table 5.7). In principle, without cuts in tax and contribution rates, taxes as a proportion of total disposable income should have increased after 1993-94 in line with the share of labour earnings. This has not been the case in a majority of countries that have witnessed reductions of their structural unemployment. By contrast, the redistributive impact of taxes increased in most countries that witnessed a reduction of unemployment during the period before 1994.

Table 5.7. **Trends of unemployment and taxes' redistributive impact**

		Period before 1993-94				Period after 1993-94		
		Unemployment rate				Unemployment rate		
		Decline		Almost constant	Increase	Decline	Almost constant	Increase
Redistribution	Decline	Netherlands			Finland Germany Switzerland	Ireland Finland United Kingdom		Japan
	Almost constant or unclear				Australia	Canada Denmark France Netherlands Norway Sweden		Austria Germany Greece
	Increase	Belgium Canada Denmark Ireland Portugal United Kingdom	United States	Japan	France Italy Norway Sweden	Belgium Italy Spain United States	Portugal Switzerland	Czech Republic

Note: For the unemployment rate, "almost constant" refers to changes of 0.5 percentage point or less. The assessment of changes in taxes' redistributive impact is based on three different methods of inequality decomposition of the Gini coefficient [additive, Shorrocks' method, subtractive, see Burniaux and Padrini (2006)] and four different data sets: Förster and Mira d'Ercole (2005), the Luxembourg Income Study (LIS) data set, the European Community Household Panel (ECHP) data set and the Cross National Equivalent Files (CNEF) data set.

Statlink: *http://dx.doi.org/10.1787/452406012176*

Finally, when looking at disposable income, no general trade-off emerges in Table 5.1 between unemployment and inequality changes. Among countries where unemployment dropped after 1993-94, inequality fell in four of them (France, Italy, the Netherlands and Spain) but increased in three (Canada, Denmark and the United Kingdom). Inequality also increased in Finland and Sweden in the context of falling unemployment, though this may only have been a cyclical development and not a cut in structural unemployment. Excluding these two countries, the hypothesis of a positive link between unemployment and inequality changes (corresponding to the shaded diagonal of Table 5.1) is supported in seven countries during the past decade while a link in the opposite direction appears in five countries. There was also no clear relationship between unemployment and inequality changes during the previous

decade, with inequality increases taking place in three countries where unemployment declined (the Netherlands, the United Kingdom and the United States) and inequality reductions in three countries with rising unemployment (Greece, Spain and Sweden).

Similarly, there was no clear relationship after 1994 between unemployment and poverty trends. However, among the countries where unemployment fell, relative poverty has unambiguously increased in a small majority of them (Canada, Denmark, Ireland and Spain)[9] while the reduction of unemployment has been associated with declining relative poverty in only three countries (Italy, the Netherlands and Norway) (Table 5.2).

As discussed below (and, in more detail, in Burniaux and Padrini, 2006), the reforms advocated by the 1994 Jobs Strategy are likely to affect income distribution and poverty in multiple and sometimes offsetting ways. The employment gains that these reforms generated have been associated with increasing wage inequality. The redistributive impact of these employment gains is ambiguous as it depends on the balance between wages that individuals have earned and the social benefits that they have lost by taking a job. Overall, it seems that the latter effect has more or less offset the former, because it is not possible to identify any systematic relationship between inequality and relative poverty changes and unemployment changes at the aggregate level.

Somewhat stronger relationships appear, however, when looking at broader aspects of labour market performance, such as employment and participation, and to levels instead of changes. The correlation coefficients reported in Table 5.8 suggest that a lower inequality is associated with higher participation and employment rates, while a positive correlation exists with the unemployment rate. Overall, female labour market aggregates show stronger and more significant correlations with aggregate inequality indicators than male ones, highlighting the importance of female work for income redistribution. Female work is also central in preventing relative poverty, as shown by the last column in Table 5.8. Nevertheless, although correlations are in general statistically significant, their sizes remain relatively small, suggesting that other forces are at work, *e.g.* the direct effect of institutions and policies on inequality.

Table 5.8. **Correlations of inequality and relative poverty measures with indicators of labour market performance,[a] 1970-2001**

	Gini index	9th/1st decile ratio	Relative poverty rate
Participation rate – total	–0.29***	–0.19***	–0.18**
Participation rate – men	–0.02	0.10	0.15**
Participation rate – women	–0.33***	–0.26***	–0.26***
Employment rate – total	–0.31***	–0.21***	–0.19***
Employment rate – men	–0.12	0.00	0.04
Employment rate – women	–0.34***	–0.26***	–0.25***
Unemployment rate – total	0.25***	0.18**	0.16**
Unemployment rate – men	0.20***	0.14**	0.12*
Unemployment rate – women	0.27***	0.20***	0.17**
Long term unemployment rate – total	0.21***	0.10	0.08
Long term unemployment rate – men	0.18**	0.06	0.04
Long term unemployment rate – women	0.21***	0.13*	0.11

***, **, * statistically significant at 1%, 5% and 10% levels, respectively.

a) Both inequality and labour market variables have been adjusted for the cycle. Labour market aggregates refer to working-age population (15-64 age group).

Source: Burniaux and Padrini (2006).

Statlink: *http://dx.doi.org/10.1787/440204343723*

1.2. Poverty incidence and persistence over the 1990s: overall and for specific groups

Poverty is multifaceted by nature and headcount measurements may not give an adequate picture of differences in the degree of poverty across countries. Some countries may have a large poverty rate but also a high turnover in and out of poverty, implying short poverty spells. Alternatively, poverty incidence may be lower in other countries on the aggregate, but with a lower probability of exiting poverty permanently. This sub-section reviews the dynamic aspects of relative poverty across OECD countries on the basis of longitudinal data for the period 1993-2000 based on the European Community Household Panel (ECHP) and the Cross National Equivalent Files (CNEF). Lack of data prevents any assessment of changes in poverty dynamics over a sufficiently long time period to assess their links with the evolution of labour market performance.

Indicators of poverty mobility and duration make it possible to draw a typology of poverty across countries with respect, on the one hand, to the degree of mobility out of poverty, and, on the other hand, to whether exiting out of poverty is permanent or transitory. In Table 5.9, relative poverty is considered as permanent or transitory in a given country depending on whether the exit rate out of poverty is below or above the average for the countries for which data are available. In turn, exit out of poverty is permanent or transitory depending on whether the probability of falling back into poverty after exiting is below or above average, respectively. Moreover, the upward mobility out of poverty is characterised as the probability of exiting out of poverty with an income above (a plus sign in Table 5.9) or below (a minus sign) the median income.

Table 5.9. **Typology of relative poverty dynamics across OECD countries**

		Panel A. **Countries with above-average relative poverty levels**		Panel B. **Countries with below-average relative poverty levels**	
		Exit from relative poverty		Exit from relative poverty	
		Transitory[a]	Permanent[a]	Transitory[a]	Permanent[a]
Relative poverty	Transitory[b]	Italy + Spain +		Luxembourg –	Austria – Belgium – Denmark – France + Germany – Netherlands +
	Permanent[b]	Greece – Ireland + United States +	Portugal + United Kingdom –	Finland –	

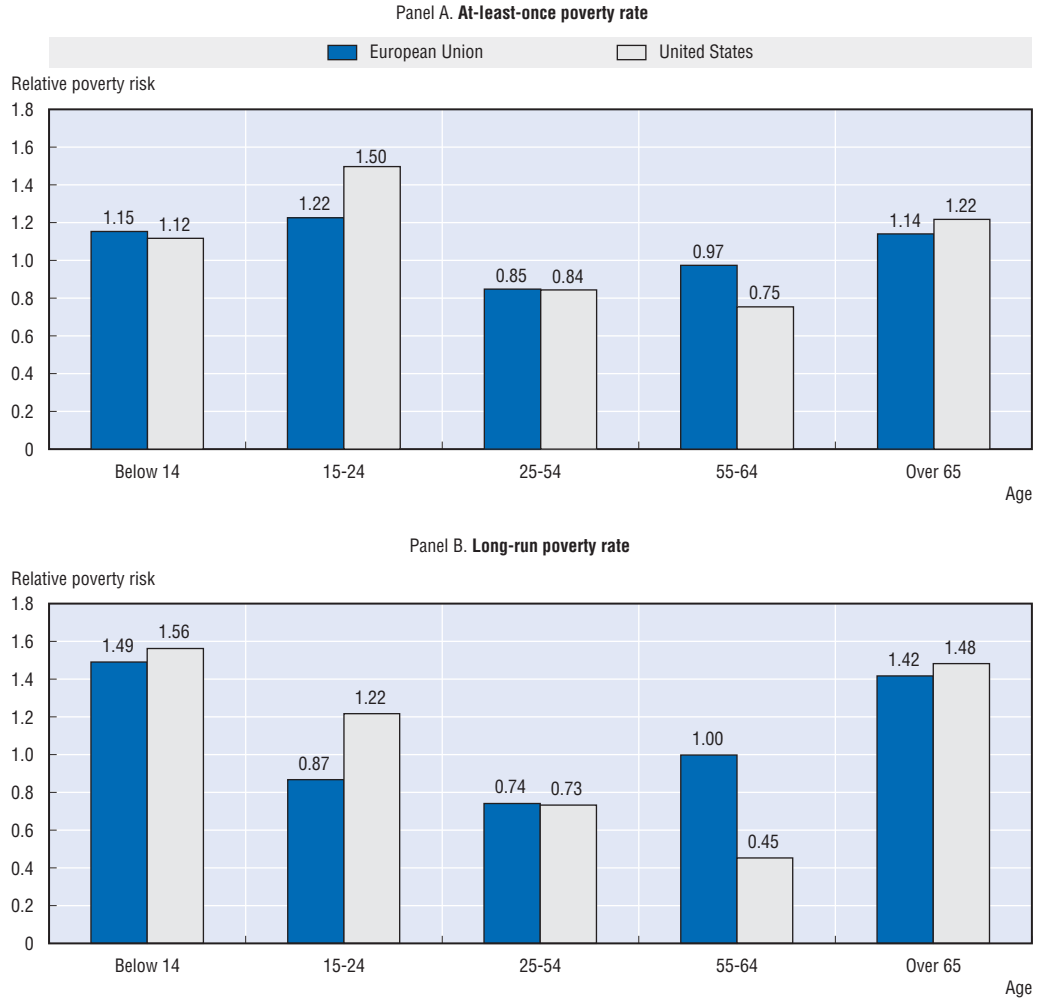
a) As measured by above-average and below-average probabilities of re-entering into relative poverty after exit.
b) As measured by above-average and below-average probabilities of exiting relative poverty.
+: Refers to an above-average probability of income above the median after exiting relative poverty.
–: Refers to a below-average probability of income above the median after exiting relative poverty.
Source: Burniaux and Padrini (2006). Statlink: *http://dx.doi.org/10.1787/347577065407*

In a majority of above-average-poverty countries (Table 5.9, Panel A), relative poverty tends to be a permanent phenomenon with durations of poverty spells above average and exit from poverty transitory. Exceptions are Spain and Italy with higher probabilities of exit and poverty spell durations around average despite a higher poverty incidence. However, in those countries where poverty can be considered as a transitory phenomenon, exit from poverty is also temporary (with an above-average probability of falling back into poverty). In only two high-poverty countries is exit of poverty likely to be permanent (Portugal and

the United Kingdom).[10] It is striking that a majority of high-poverty countries exhibit a relatively high upward income mobility. In contrast, in low-poverty countries (Table 5.9, Panel B), relative poverty is a transitory phenomenon, exit from poverty is permanent but those who exit poverty end up with relatively low income, possibly reflecting lower incentives to move up the income ladder in relatively more egalitarian countries. Finland emerges as an exception in this typology with low but permanent poverty.

The heterogeneous nature of relative poverty is further illustrated by looking to the individual and household characteristics of the poor. Considering age groups (Figure 5.2), children and old-age pensioners (aged above 65) face a higher risk of poverty incidence (as measured by the at-least-once poverty rate) and, even more, persistence (as measured by the long-run poverty rate)[11] than the whole population, both in Europe and the United States. Both poverty incidence and persistence decline substantially during the working age and start rising again with retirement, noticeably earlier in Europe, especially as concerns long-run poverty, than in the United States. Poverty incidence, but not persistence, increases also at age 15-24 during the transition from school to work.

Figure 5.2. **Relative poverty risk profile by age group, 1994-2001**

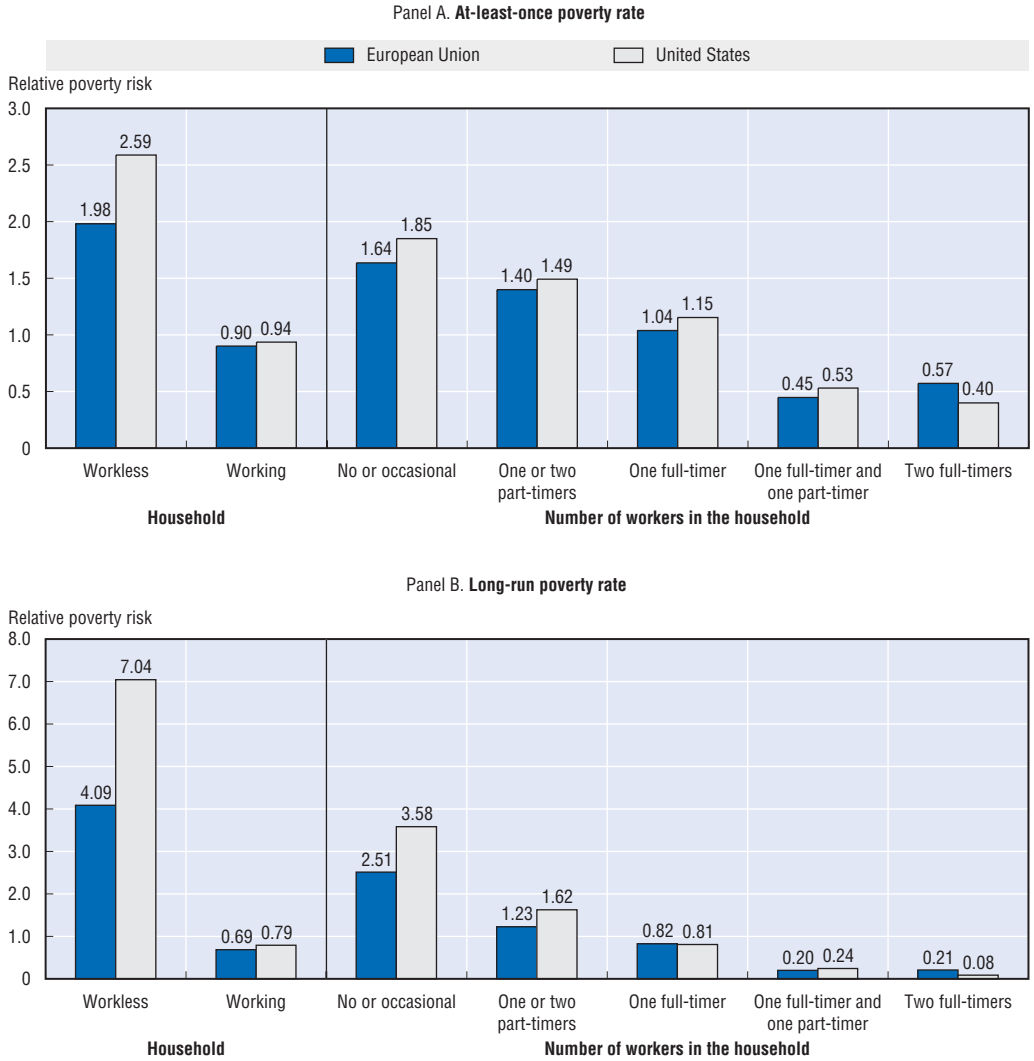


Source: OECD calculations based on the European Community Household Panel (ECHP), waves 1 to 8, for the European countries; and based on the Panel Study of Income Dynamics (PSID), for the United States.

Statlink: *http://dx.doi.org/10.1787/467008004042*

In most countries, relative poverty incidence and persistence is higher for lone parents – especially women with children – and less educated individuals. Individuals in households with no working members exhibit a significantly higher risk of poverty incidence and, especially, persistence (Figure 5.3). The presence of occasional or part-time workers is in general not enough to distinctly reduce poverty risk. Individuals in households with one full-time worker face average probabilities of poverty incidence and lower-than-average risk of poverty persistence. In several countries (Italy, Portugal, France and the United States), one full-time worker does not suffice to prevent above-average risks of poverty incidence (and persistence in the case of Italy and Portugal). Only the presence of a second earner in the family reduces substantially the likelihood of being poor in all countries. These results confirm the finding in OECD (2000), Council of European Union (2004) and Valletta (2004) showing that work status is an important determinant of poverty in OECD countries.

Figure 5.3. **Relative poverty risks by working status, 1994-2001**



Source: OECD calculations based on the European Community Household Panel (ECHP), waves 1 to 8, for the European countries; and based on the Panel Study of Income Dynamics (PSID), for the United States.

Statlink: *http://dx.doi.org/10.1787/436356112021*

However, the persistence of cross-country differences in poverty levels, and the fact that these are not systematically related to differences in employment rates, also suggests that other factors are key in determining income patterns.

1.3. Impact of labour market institutions on household income inequality and poverty

Analysing the impact of labour market institutions and policies on inequality and relative poverty in an econometric framework represents a relatively new line of research. The effect of institutions on relative wages has been relatively well analysed (for instance, Koeniger *et al.*, 2004). For instance, stronger union power tends to compress wage distribution, which contributes to reduce income inequality.[12] But there are channels other than wages through which institutions affect inequality and poverty.

Many redistributive policies imply the payment of benefits, such as unemployment benefits and other welfare benefits paid to the inactive. These policies tend to reduce disposable income inequality and poverty. Judging the impact of these policies on inequality and poverty requires to compare the level of the benefits that individuals perceived with the wages that they could get in the absence of such benefits and that, in turn, is related to the quality of the jobs that could be created would these benefits be lower. Finally, some reforms, by increasing employment, are likely to generate additional budgetary savings that may give rise to further tax reductions or benefit increases, the effect of which on inequality and poverty is difficult to identify *a priori*. Therefore, the impact of labour market institutions on inequality and poverty is *a priori* ambiguous and should be better analysed at a disaggregated level – policy by policy – rather than at the macroeconomic level.

However, a number of recent empirical cross-country studies have quantified in a macro-econometric framework the impact of institutions and policies on household income inequality, showing, for instance, that government spending (Galli and van der Hoeven, 2001) and union density (Alderson and Nielsen, 2002) contribute to reduce household income inequality. But the theoretically ambiguous nature of these relationships as well as the high possibility of omitted variables – such like the influence of increasing women participation – and the lack of good quality data make these assessments somewhat tentative. The multivariate analysis discussed in the Burniaux and Padrini (2006) finds little robust evidence of any relationship between labour market institutions, on one hand, and household income inequality and poverty, on the other.

1.4. Conclusion

The main finding of this section is that there is no evidence that countries that have succeeded in lowering unemployment over the past decade have systematically been confronted with increasing inequality and relative poverty. Some have seen an increase in inequality but not others. Nor is there any evidence that stable or rising unemployment has gone hand in hand with stable or declining income inequality and relative poverty. A more robust relationship can be observed between unemployment reductions and increasing wage dispersion. But, when looking at the labour income of all households, this effect has been offset to a greater or lesser extent by the redistributive impact of employment gains.

2. Implications for job stability and career paths

The 1994 Jobs Strategy focused mainly on how to reduce barriers to get into a job. The evolution of wages and working conditions of individuals, once in jobs, was not comprehensively assessed; the analyses dealt almost exclusively with the role of policies to promote innovation and entrepreneurship, and to upgrade workers' skills, in supporting wage increases.

Recently, however, concern has been expressed that efforts to raise employment may have come at the expenses of wages and working conditions of workers – thereby leading to a trade-off between employment and job quality objectives (European Commission, 2003). This section looks at whether such a trade-off exists. More fundamentally, the issue arises as to whether certain workers may be trapped in precarious forms of employment or low-paid jobs, thus facing a high risk of moving back to non-employment. The section also examines evidence for such traps and related policy implications.

2.1. Temporary jobs: evidence and policy implications

Temporary employment has grown in a considerable number of countries in the past two decades (Chapter 2) and this expansion has raised concerns that temporary jobs may be an additional source of insecurity and precariousness for workers. To a certain extent, the growth in temporary jobs reflects the strictness of the employment protection legislation (EPL) on regular contracts, and for instance in the United States, where EPL is low, the distinction between temporary and permanent contracts is not very relevant. Hence, a relatively low share of temporary jobs can coincide with a relatively high job rotation, as for example in Ireland and the United Kingdom.[13] Temporary jobs may also have beneficial effects. First, by increasing employment flexibility, they are probably raising employment levels. There is also some evidence that temporary employment (in particular through temporary agencies) improves the matching of job seekers to job vacancies, thus contributing to a reduction in frictional unemployment. Second, temporary jobs may offer a foothold in the labour market and serve as a first step towards permanent positions.

However, temporary jobs could also trap certain workers in situations of employment instability and earnings insecurity, as suggested by the fact that temporary jobs are most often not a voluntary choice. As evidenced in OECD (2002, Chapter 3), temporary jobs tend to provide less favourable conditions than permanent ones. Controlling for differences in individual and job characteristics, the wage penalty for temporary workers is found to be significant, ranging from 6% in Denmark to 24% in the Netherlands, and averaging about 15% in a number of EU countries. Access to non-wage benefits, which represent an (increasingly) important part of job quality (Box 5.1), also tends to be lower than for workers under permanent contracts. This is particularly the case in countries where fringe benefits are not provided by employers on a universal basis, such as Australia, Canada and the United States. In most other countries, temporary workers are in principle eligible for the same benefits as permanent workers, but access is sometimes *de facto* limited by eligibility criteria such as minimum contribution periods. In most countries, job stability also tends to be lower than for workers on permanent contracts.

No clear link between changes in the incidence of temporary work and in the volume of employment

The incidence of temporary work varies considerably across countries, as has its recent evolution (OECD, 2002, Chapter 3). In general, there seems to be no systematic link between the

Box 5.1. **Non-wage benefits: an important dimension of job quality contributing to traps**

Besides pay and job stability, non-wage benefits – in particular the extent to which workers are covered by health insurance and pension plans – represent an important dimension of job quality. The role of non-wage benefits is becoming increasingly important in view of the efforts to control public spending on social security, health and pensions. Thus, disparities in access to complementary schemes, which are often linked to employment, may represent an important new source of disparity in job quality that will require attention from policy makers.

In addition to the United States, where the employer is the main source for health insurance, employers' role in offering coverage to complement public insurance is large and/or has been rising recently in Canada, France, Ireland, Portugal, Sweden and the United Kingdom (OECD, 2004a).[1] Workers on non-standard forms of employment are less often covered by employer-sponsored health insurance than are "core", higher-paid workers, as is illustrated by the Canadian and US cases (OECD, 2006a, Figure W.5.1). Eligibility conditions such as working a minimum number of hours per week, waiting a certain period of time after hiring or being a permanent worker often exclude part-time and temporary workers from employer-sponsored health coverage. Low-educated and low-wage workers, also suffer from significantly lower coverage rates. In fact, Farber and Levy (1998) find that the gap between "core" and "peripheral" jobs has widened in the United States since 1980, and coverage rates of low-educated and low-wage workers have continued to fall between 1997 and 2002 despite the overall economic rebound (EBRI, 2005).

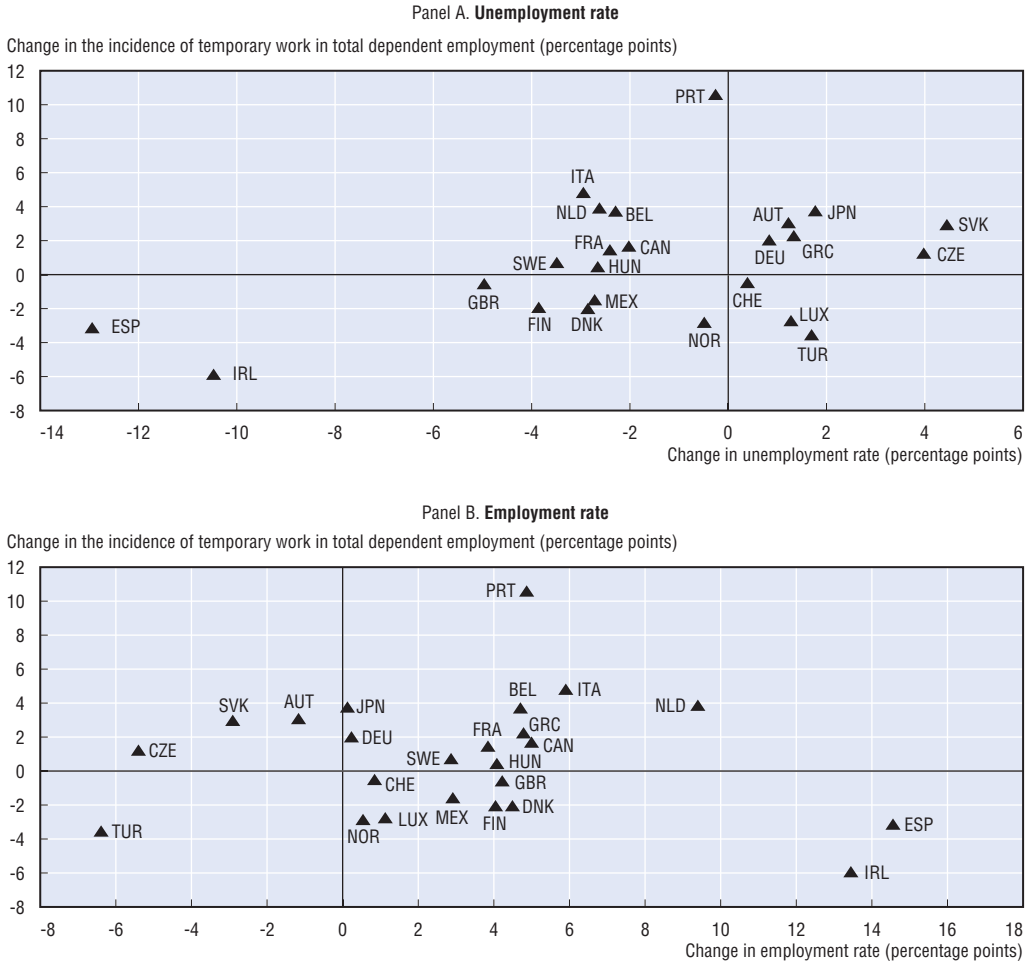
Employer-sponsored pension plans (or occupational pensions) have become an increasingly important part of national pension systems. This is especially the case in countries where the first pillar of the pension system provides a relatively low income replacement.[2] In Denmark, France, the Netherlands and Sweden, occupational pension systems have a long history and were developed through collective agreements, and most workers are covered by one of these plans.[3] In the other countries, schemes were most often set-up on a voluntary basis by individual employers, and coverage rates are around half of the workforce in Canada, Germany, Norway and the United Kingdom, and between a third and half of the workforce in Belgium, Ireland and the United States. In Canada and the United States, coverage rates have tended to decline since the 1980s.[4]

In countries where pension schemes are individual in nature (*i.e.* not obtained through the employer), patterns of disparities in coverage rate across various groups of workers are likely to be very similar to those found in the case of health insurance. Low-paid workers typically invest less, if at all, in individual plans than is the case with their high-paid counterparts. This is why coverage rates are low in countries like Canada and the United States (see OECD, 2006a, Figure W.5.1). In these two countries, eligibility conditions also disadvantage part-time and temporary workers, as well as low-educated workers.

1. In other countries such as Australia, Austria, Denmark, Germany, Korea, eastern European countries and Switzerland, the individual private insurance market provides the main source of complementary insurance. Employer-sponsored health insurance has a number of advantages for the workers over individual health insurance. Employers generally have greater bargaining power over insurers, so that they are able to negotiate lower premiums and ensure better coverage (*i.e.* lower deductibles and exclusions). In a number of countries, employers also pay part or all of the premium.
2. The relatively low coverage of employer-sponsored pension plans in Austria, Finland, Greece, Italy and Spain is probably explained by the high replacement rates characterising the mandatory public schemes in these countries (see OECD, 2006a, Table W.5.1).
3. Coverage is 100% in France as participation is mandatory.
4. In Canada, coverage declined from 47% in 1981 to 41% in 2000 (Munnel *et al.*, 2004). In the United States, it dropped from 41 to 35 for workers in the private sector between 1979 and 1988, rebounded to 42 in 1999 and dropped again to 39 in 2002 (EBRI, 2005).

changes in temporary work incidence and the changes in unemployment or employment rates experienced over the past decade (Figure 5.4). Ireland is the main exception, where an important reduction in unemployment was associated with a significant cut in the incidence of temporary jobs.[14]

Figure 5.4. **Changes in the incidence of temporary employment and unemployment/employment rates, 1994-2004**[a]



a) 1995-2004 for Austria and Mexico; 1996-2004 for Norway; 1997-2004 for Canada, Hungary and Sweden; 1994-2003 for Germany.

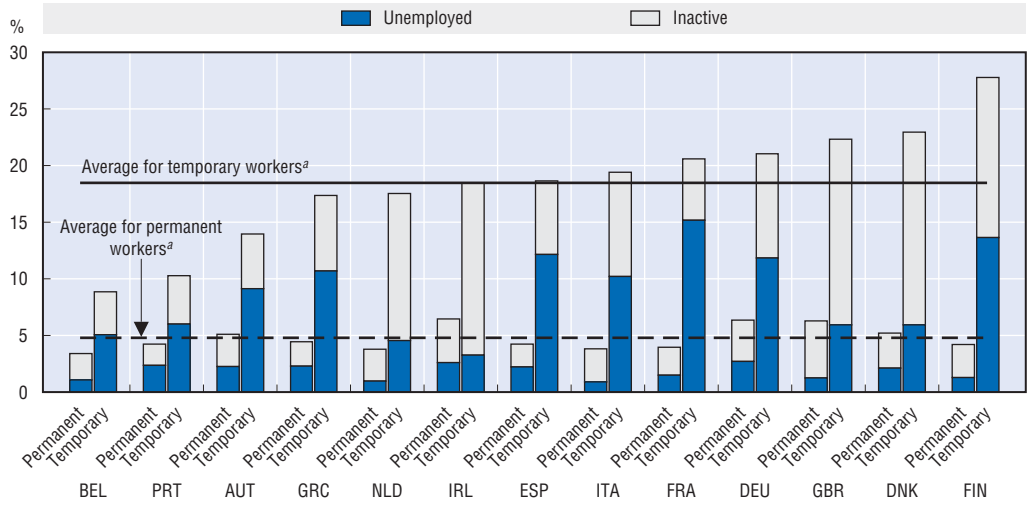
Source: OECD database on Temporary Employment; OECD database on Labour Force Statistics.

Statlink: *http://dx.doi.org/10.1787/682283382478*

A relatively large proportion of workers on temporary jobs risk losing their job

Overall, a considerable share of temporary workers moves into permanent employment (OECD, 2006a, Figure W.5.2).[15] Mobility levels and patterns vary considerably across countries, though. While more than half of temporary employees in 1998 were in permanent jobs one year later in Austria and the United Kingdom, less than a quarter of temporary employees managed the same in France and Portugal. The picture is somewhat different when looking at their situation after three years: Belgium and the Netherlands become the best performers, with 70% of temporary employees in 1998 in a permanent job in 2001, against less than 40% in Greece.

Figure 5.5. **One-year transition rates to non-employment of temporary and permanent workers, 1998-2001 averages**



a) Unweighted average transition rates out of employment for permanent and temporary workers, respectively.
Source: OECD calculations based on the European Community Household Panel (ECHP), waves 5 to 8.
Statlink: *http://dx.doi.org/10.1787/688665511428*

Not all mobility out of temporary employment is into permanent employment, however. A number of workers move instead to unemployment or inactivity. In fact, in all countries for which data exist, there is evidence that workers on temporary jobs are much more likely to move to non-employment than their permanent counterparts (Figure 5.5). This is also the case when comparing temporary workers to permanent workers with short tenure, *i.e.* inferior to one year.[16] However, countries differ in the way in which temporary workers move out of employment: while the majority of temporary workers who were not employed had moved into unemployment in most countries, in particular Finland, France, Germany, Greece and Spain, transitions from temporary employment to inactivity predominated in Denmark, Ireland and the United Kingdom (a trend which has become more pronounced over the years).

Workers trapped in temporary/non-employment cycles represent as much as 11% of total employment in Spain, 8% in Finland, 6% in France and around 5% in Greece and Portugal.[17]

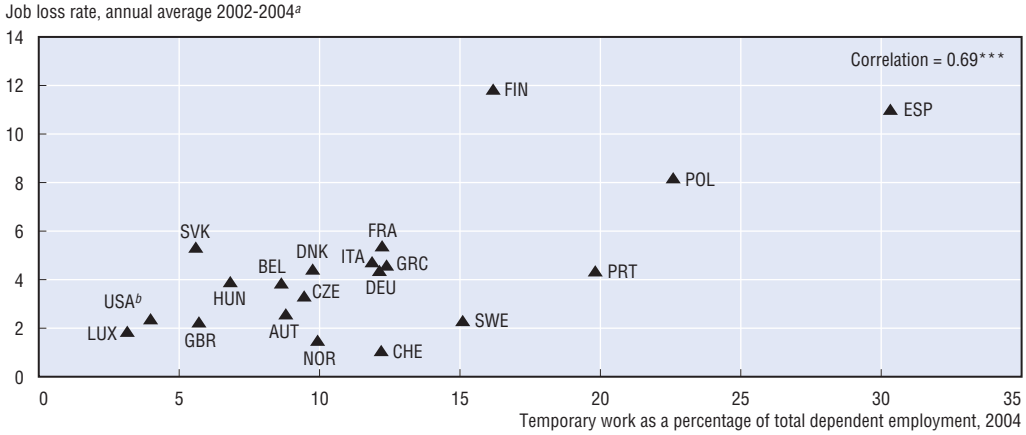
In terms of age-groups, upward mobility is generally lower for prime-age workers than for youth, who tend to have a higher probability to get a permanent job and a lower probability to move to non-employment.[18] In addition, mobility into permanent jobs tends to be lower for low-educated persons than for medium- and high-educated persons, and the difference is particularly acute in the Southern European countries.[19] The picture is even more clear-cut when looking at mobility from temporary jobs to non-employment, since it is always higher for low-educated workers than for high-educated ones.

Policy implications

In sum, apart from being a social and political concern in some countries, the existence of such temporary-work traps raises a number of more narrow economic concerns. First, evidence shows that workers on such jobs often move into non-employment – and policy makers thus face the challenge of re-activating them, which is especially difficult for those temporary workers who move to inactivity (see Section 2.4 of Chapter 3). Second, an excessively high job rotation is likely to lead to losses of human capital and productivity

(OECD, 2004a, Chapter 2). Finally, in some countries, unemployment benefits provided to workers at the end of a temporary contract are likely to represent a disproportionately high share of total unemployment benefit expenditure, since temporary workers are much more likely to move to non-employment than permanent ones (Figure 5.5), including those with short tenure. This is also suggested by the positive correlation between involuntary job loss rates and the share of temporary employment in dependent employment (Figure 5.6).

Figure 5.6. **Temporary employment and the job loss rate**



*** statistically significant at 1% level.

a) The job loss rate is calculated as the number of persons currently non-employed who left their job during the previous year for involuntary reasons (termination of fixed-term contract or job terminated at the initiative of the employer) divided by total dependent employment.

b) Data for job losses refer to 2003, data for temporary work refer to 2001.

Source: OECD database on Labour Force Statistics; unpublished tabulations from the European Union Labour Force Survey (EULFS), for the European countries; and OECD calculations based on the Current Population Survey (CPS), January, Displaced workers, employee tenure and occupational mobility Supplement file, for the United States.

Statlink: *http://dx.doi.org/10.1787/276023225667*

Various policy options can be considered to address these traps. Strong development of temporary jobs has generally been a response to partial EPL reforms (*i.e.* liberalisation of the rules governing fixed-term contracts or temporary placement agencies, while retaining relatively strict job protection for regular workers). Hence, one option may be to relax EPL on regular employment while at the same time tightening regulation of temporary work to prevent abuse and better protect temporary workers. Secondly, training is also a way to facilitate the move to permanent jobs (see Section 4 of Chapter 3). Training systems may indeed have to be adapted to the fact that there are many temporary workers, possibly by targeting certain types of training on individuals – rather than firms. Finally, encouraging employers to internalise part of the cost of temporary contracts in terms of benefit spending could also be an option. This could be done by implementing an experience-rating system that links employers' unemployment contributions to the lay-off history of the firm, including non-renewals of temporary contracts – of course, such a scheme has to be well designed in order to avoid potential adverse effects on jobs.

2.2. Low-pay incidence: patterns and policy significance

The evolution of the incidence of low-paid work over the 1994-2004 period provides a rather mixed picture (Figure 5.7).[20] The incidence of low pay has increased in a number of countries, starting from a low level in Denmark, from a medium level in Germany and the

Figure 5.7. **Evolution of the incidence of low-paid work since the mid-1990s**[a]

a) Percentage of full-time wage-earners earning less than two thirds of the median wage of full-time wage-earners.
b) 2000 for Hungary, 2001 for Belgium, Finland, France, Greece, Italy, Portugal and Spain, 2002 for Germany and Poland, 2003 for Canada and Denmark, 2004 for the other countries.
c) 1996 for Denmark and Finland, 1997 for Canada and Sweden, 1994 for the other countries.

Source: OECD Earnings database and OECD calculations based on the European Community Household Panel (ECHP), waves 1 and 8.

Statlink: *http://dx.doi.org/10.1787/184587347336*

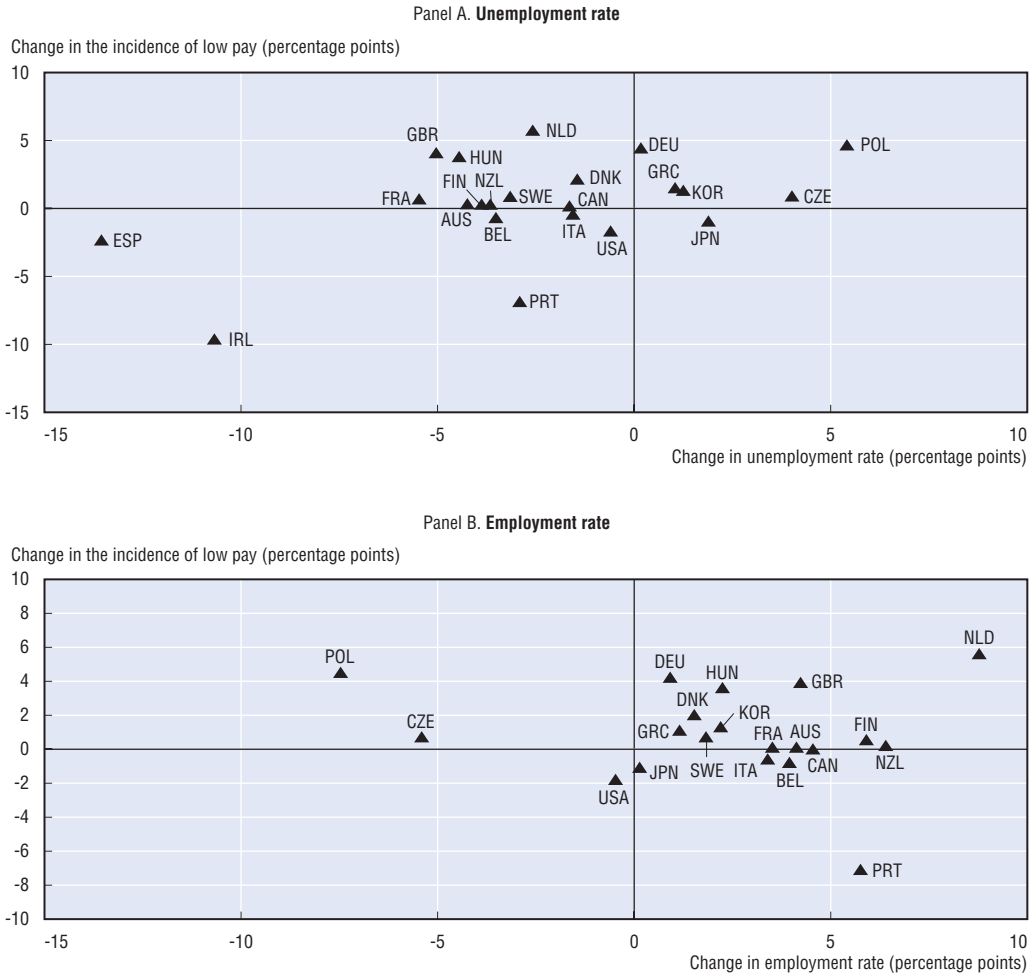
Netherlands, and from an already high level in Hungary, Poland and the United Kingdom. By contrast, it decreased significantly from a high level in Ireland, and from a medium level in Portugal. The United States also witnessed some reduction in the incidence of low-pay, although it remains in the group of countries where more than 20% of employees are low-paid, which also includes Canada, Hungary, Korea, Poland, and the United Kingdom. Not surprisingly, the incidence of low-paid work is lower in countries where the minimum wage is set at a higher level (see OECD, 2006a, Figure W.5.5).[21]

In all countries, youth low-pay incidence is at least two times that of the prime-age group, ranging from 18% in Portugal to 67% in the Netherlands.[22, 23] Low-educated workers are also more often low-paid than those with medium and higher education, with incidence ranging from a low of 13% in Portugal to above 30% in the United Kingdom.[24] Newly-hired employees may also be over-represented among the low-paid, as suggested by the case of Canada.[25] The over-representation of youth in low-paid jobs need not automatically imply low living standards – many youth are still living with their parents – or poor long-term career prospects, but the association between low-education and low-pay suggests that low-pay traps may be important.

No systematic link between changes in unemployment and changes in low-pay incidence

In general, there is no systematic relationship between changes in unemployment rates since 1994 and changes in low-pay incidence (Figure 5.8). Ireland, which saw a big fall in unemployment and instituted a legal minimum wage at the end of the 1990s, is the main outlier. Thus, neither the hopes of the optimists (*i.e.* that reducing unemployment automatically solves the low-pay problem) nor the fears of the pessimists (*i.e.* that labour market reforms promoting employment will result mainly in a proliferation of low-paid jobs) seem to be borne out.

Figure 5.8. **Changes in the incidence of low pay and unemployment/employment rates, 1994-2004**[a]



a) 1997-2003 for Canada; 1996-2003 for Denmark; 1996-2001 for Finland; 1994-2000 for Hungary; 1997-2004 for Sweden; 1994-2001 for Belgium, Finland, France, Greece, Italy, Portugal and Spain, 1994-2002 for Germany and Poland.

Source: OECD Earnings database; OECD calculations based on the European Community Household Panel (ECHP), waves 1 and 8; and OECD database on Labour Force Statistics.

Statlink: *http://dx.doi.org/10.1787/356328108441*

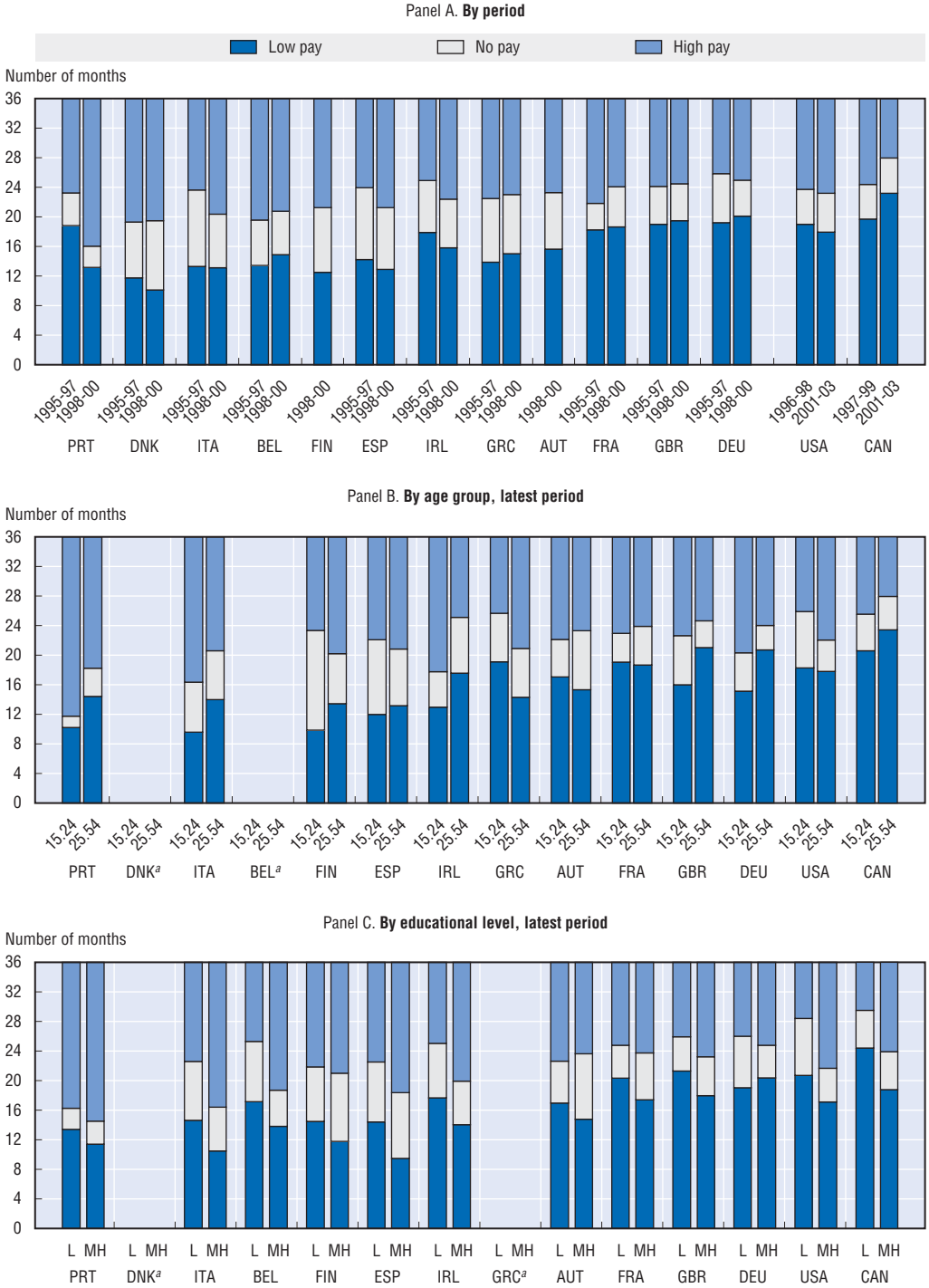
Low-paid work often alternates with non-employment and can become a trap

OECD (2003a, Chapter 2) evidenced the existence of low-pay traps. To evaluate the mobility of low-paid workers, Figure 5.9 reports the following indicator for workers starting in low-paid jobs: the number of months over the three-year period 1998-2000 that are spent in: *i)* low-paid jobs (low pay); *ii)* unemployment or non-employment (no pay); and *iii)* higher paid jobs (high pay).[26] This measure is better than simple transition rates because it takes into account work intermittence and repeat spells of low-paid employment.

Mobility prospects of low-paid workers across countries tend to be negatively correlated with low-pay incidence. They are lowest in Canada, the United Kingdom and the United States, which belong to the group of countries with high low-pay incidence and in France and Germany, which have medium incidence (Figure 5.9, Panel A). By contrast, the number of months spent in low-paid jobs by workers who were low-paid in 1997 over the subsequent three years is lowest in Denmark, Finland, Italy and Portugal, which belong to

Figure 5.9. **Risk of low-pay/no-pay traps**

Cumulative months of low pay, no pay, high pay over three years for persons low-paid at the beginning of the period



Note: Countries are ranked in increasing order of the number of months spent in no pay or low pay over the 1998-2000 period.

L (low): Less than upper secondary education. MH (middle-high): Upper secondary education and above.

a) Data not shown due to too small sample sizes.

Source: OECD calculations based on the European Community Household Panel (ECHP), waves 2 to 8, for the European countries; based on the Survey of Income and Program Participation (SIPP), for the United States; and Statistics Canada calculations based on the Survey of Labour and Income Dynamics (SLID), for Canada.

Statlink: *http://dx.doi.org/10.1787/851843433852*

the group with low incidence of low pay. The same overall picture holds when taking into account periods of non-employment together with periods of low pay, although the differences across countries are more muted. In Portugal, time spent in non-employment is very low, and this is the country where upward mobility is highest: workers who were low-paid at end-1997 spent more than half of the three subsequent years in high-paid work (20 out of 36 months).

Overall, upward mobility of low-paid workers has tended to improve between the mid-1990s and the late 1990s or the early 2000s – possibly reflecting the effects of the cycle (Figure 5.9, Panel A). The number of months spent in high-paid jobs increased substantially in Portugal, to a lesser extent in Ireland, Italy and Spain, and slightly in Germany and the United States.[27] Upward mobility remained stable in Denmark, as the reduction in time spent in low-paid work was compensated by an increase in time spent in non-employment. The other countries experienced a deterioration of upward mobility: significant in Canada, France, medium in Belgium, and small in Greece and the United Kingdom.[28]

In most countries, low-pay/no-pay traps weigh more heavily on prime-age workers than on youth, who, not surprisingly, have on average higher upward mobility (Figure 5.9, Panel B). Finland, Greece and the United States are the sole exceptions. In addition, compared with their higher-educated counterparts, low-educated workers who are in low-paid jobs are less likely to move to high-paid jobs, and are more likely to move to non-employment (Figure 5.9, Panel C). The gap between the two groups is particularly large in Belgium, Canada, Italy, Ireland and the United States.[29] In the latter country, low-educated workers who were low-paid at end-2000 spent less than eight months in high-paid jobs in the three subsequent years.

It is not completely surprising that low-educated workers are less likely to move to high paid jobs than higher-educated workers. And to some extent, a high share of low-paid workers may reflect the fact that the low-educated persons are employed instead of out of employment. However, among countries with comparable shares of low-educated population in the 25-64 age group,[30] even when taking into account non-employment, the performance of the low-educated group varies significantly (Figure 5.10). In Denmark for example, 55% of the prime-age low-educated persons earn more than "low" wages, which is significantly more than most of the countries shown in Figure 5.10. This could be explained by different systems of adult training, but also more fundamentally by institutional differences, notably in the wage formation system.

Policy implications

Care is needed when considering how policy can address low-pay issues. Indeed, in some countries, policies have contributed to keep low-productivity workers out of jobs. Nevertheless, low-pay traps raise various concerns for policy. First, as already noted, low-paid workers often end up in non-employment and may have to be re-activated, which is more difficult if the prospects of keeping an employment and possibly moving upward in the wage scale are low. Depending on the country, low-paid workers spend between a quarter and three-quarters of the three-year period in non-employment, compared with less than one tenth of the three-year period for high-paid workers.[31] There may also be a waste of productive potential if individuals who could move to higher paid jobs are trapped in low-paid jobs or cycle between such jobs and non-employment. This may be the case if skills are not properly recognised, or when labour market intermediation is inefficient, for example if placement agencies face incentives to provide the unemployed with the first job

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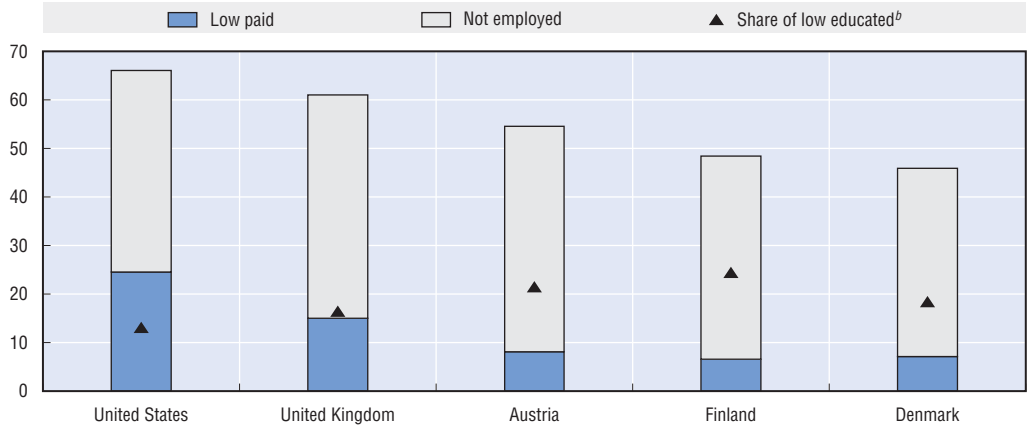
Figure 5.10. **Share of low-educated workers receiving low pay or no pay for selected countries, early 2000s**[a]



a) Data shown refer to 2001 for the United States and to 2003 for the other countries.
b) Percentage of all persons aged 25 to 64.

Source: OECD calculations based on the European Community Household Panel (ECHP), wave 8, for the European countries; based on the Survey of Income and Program Participation (SIPP), 2003, for the United States; and OECD (2005), *Education at a Glance: OECD Indicators*, Paris.

Statlink: *http://dx.doi.org/10.1787/013305633680*

available, not always suited to the experience and abilities of the jobseeker. The existence of low-paid groups with little hope for upward mobility may also raise significant social concerns in some countries.

Training policy may play an important role for transition patterns (see Section 4 of Chapter 3). In the case of the United States, Johnson and Corcoran (2003) show that skill deficiencies often prevent current and former welfare recipients from making the transition to a better job. Yet, people holding "low-paid" jobs are the least likely to receive training. Better recognition of the skills that workers possess, *e.g.* through systems of certification of prior learning, may also help unlock the career potential of certain low-paid workers.

Providing appropriate incentives for job-placement agencies is also important. Managing the performance of employment agencies by tracking long-term employment and earnings outcomes would help in this respect (OECD, 2005a, Chapter 5). Such techniques are still rarely applied in practice though; some pilot programmes using administrative tax databases to follow employment and wage outcomes of individuals placed on the labour market are being implemented by the Jobcentre Plus in the United Kingdom. Shifting the objectives from short-term placement towards long-term sustainability of employment would require including job quality statistics (the most simple being wages and job tenure) in the employment agencies' reporting statistics (Mansour, 2005; National Employment Panel, 2004).

In addition, it may be important to ensure that policy measures implemented to increase labour demand for, and participation of, low-paid workers do not unintentionally end up blocking upward mobility of these workers. For example, thresholds should be avoided when reducing social contribution rates or implementing in-work benefits schemes, along the lines adopted in the Netherlands where the social contribution rate rises gradually with the pay level (see Sections 2.2 and 3.2 in Chapter 3.

Notes

1. The data compilation and analysis are discussed in detail in Burniaux and Padrini (2006).
2. Overall inequality is measured by the Gini coefficient and the ratio of the average income of the ninth to the first decile. Different measures of relative poverty include the proportion of individuals with disposable income below 50% and 60%, respectively, of the median income. Measurement of inequality with emphasis on the bottom of the distribution involve a General Entropy index with the entropy parameter set equal to –1 calculated over the entire distribution, a Mean Log Deviation (MLD) index calculated over the entire distribution, the ratio of the average disposable income of the 5th to the 1st decile, a Gini coefficient calculated over the three bottom deciles of the distribution and the mean income of the three bottom deciles relative to the mean income of deciles four to six. The data sources include data from Förster and Mira d'Ercole (2005); the Luxembourg Income Study (LIS) data set; the European Community Household Panel (ECHP) data set; and the Cross National Equivalent Files (CNEF) data set. See Burniaux and Padrini (2006) for details.
3. For Australia during the period after 1993-94, the only available data for income inequality and relative poverty come from Förster and Mira d'Ercole (2005). However, more recent national sources, including the Australian Bureau of Statistics, report no significant increase of income inequality and a small decrease of the relative poverty rate. These evolutions are in contradiction with the data from Förster and Mira d'Ercole (2005). Therefore, in order to maintain comparability across countries, no evolution are reported for Australia for the period after 1993-94.
4. Similarly, cross-country comparisons of relative poverty rates are not informative concerning international differences in the incidence of material deprivation. See Burniaux and Padrini (2006) for a discussion of absolute versus relative poverty measures.
5. Keeping the poverty thresholds constant in real terms over a long period of time yields unrealistic poverty evolutions in countries with rapidly growing standards of living. For instance, assuming a constant real threshold (corresponding to 50% of the median income in the initial year) in Portugal would imply a dramatic fall of poverty incidence from 19% in 1979-80 to 3% only in 2000, according with the data collected by Förster and Mira d'Ercole (2005).
6. Based on a different data source than for the other similar tables.
7. Non-working households are included in the distribution (*i.e.* with zero earnings).
8. In Burniaux and Padrini (2006), the redistributive power of transfers and taxes is measured in three alternative ways: 1) the inequality change resulting from adding transfers and taxes to other income sources; 2) the inequality change resulting from removing transfers or taxes from total disposable income; and 3) the contribution of transfers and taxes to total inequality assuming that interaction effects are equally distributed across all income sources.
9. Again considering that the decline of current unemployment rates in Sweden and Finland from exceptionally high levels in 1994 represented cyclical rather than structural reductions.
10. Though the United Kingdom is very close to the limit where relative poverty can be considered as transitory and has an average proportion of chronic poverty despite a higher overall poverty incidence (see Burniaux and Padrini, 2006).
11. Calculated as the proportion of individuals living in households with an average disposable income over the period considered below or equal to the median disposable income.
12. Stronger unions also tend to increase the labour share of total national income, which tends to reduce inequality to the extent that labour earnings are more equally distributed than those from capita (Checchi and Garcia Penalosa, 2005). On the other hand, high union bargaining power is likely to increase unemployment by pricing less productive workers out of jobs, thus raising between-group inequality and through this channel, widening the disposable income distribution of the whole population (although the impact of unemployment on inequality is also ambiguous as the unemployed have a lower income than the employed but the distribution of their incomes is more equal).
13. The shares of dependent employees on temporary contracts in Ireland and the United Kingdom were 3% and 6% respectively in 2004, while that of employees with tenure inferior to one year were 19% and 18%. Portugal and Spain, with shares of temporary jobs of 20% and 30% respectively, had 11% and 19% of dependent employees with tenure inferior to one year in 2004.
14. In Ireland, this also corresponds to a tightening of the regulation on the use of temporary contracts.

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15. Such transition rates were not calculated for the United States since the dividing line between temporary and permanent contracts is difficult to establish in this country, and longitudinal surveys such as SIPP used below to assess low-paid workers mobility do not include such a labour status variable.

16. The gap in transition rates out of employment between permanent workers with tenure inferior to one year and temporary workers varies across countries. It is small in Belgium and Ireland, but large in Finland, France and Italy (see OECD, 2006a, Figure W.5.3).

17. These figures correspond to the number of workers who had temporary jobs in 1998 and were either still temporary workers or not employed in 2001, divided by total employment in 2001. Table W.5.2 in OECD (2006a) provides the transition rates to all categories of labour force status.

18. Youth refer to the 15-24 age group.

19. See Figure W.5.4 in OECD (2006a) for comparative statistics for 13 European countries. In their econometric analysis for Spain, Casquel and Cunyat (2005) also find that low-educated workers more often get stuck in temporary contracts, while temporary contracts typically serve as a stepping stone for high-educated workers.

20. Low pay is defined in relative terms as less than two-thirds of the median wage. As when looking at poverty, an absolute measure of low pay could be envisaged. Australia, Canada, the United Kingdom and the United States also measure poverty in absolute terms. This consists in defining a minimum standard (basket of goods and services) judged necessary to live, *i.e.* for physical subsistence, generally called a poverty line. The same could be done for low pay. However, this type of measures raise a number of theoretical and empirical problems. First, as illustrated by the fact that poverty lines tend to rise over time, what is needed for physical subsistence rests on a subjective judgment and tends to increase as standards of living are rising (see Fisher, 1995). Second, defining a minimum standard is even more difficult at the international level.

21. The existence of a reduced minimum wage for youth in a number of countries, such as Australia, Belgium, Ireland, the Netherlands, New Zealand and the United Kingdom, may be responsible for part of the "noise" in the relation. See Section 3.1 of Chapter 3 for a fuller discussion of minimum wages, including potential effects on employment.

22. The Netherlands is the country with the most differentiated minimum wage for youth, ranging progressively from 30% of the statutory rate for those aged 15 to 85% for those aged 22.

23. Older workers also experience relatively high incidence of low-pay in Germany and the United Kingdom (17 and 22% respectively), although to a much lesser extent than youth.

24. The Netherlands is the only exception to this rule, as workers with medium education experience a higher low-pay incidence than those with low education, which is related with the high incidence among youth associated with the very differentiated youth minimum wage mentioned above.

25. Based on data from various surveys, Morissette and Johnson (2005) find that the share of low-paid jobs remained constant in Canada over the 1981-2004 period. However, wages of newly hired employees fell significantly over the same period, and this is the case across the various age groups, while wages of senior workers improved (especially for men). This result is not simply due to compositional effects, as the increase in the wage gap between new entrants and established workers is reduced but persists when taking into account individual and job characteristics. The incidence of temporary jobs also rose more among newly hired, while coverage among these workers by employer-sponsored pension has fallen. In principle, lower wages at entry into work could be compensated subsequently by a steeper earnings profile. Looking at the wage profile of successive cohorts of labour market entrants, Morissette and Johnson find that they have become steeper for highly educated workers, but not for workers with no university degree. One explanation to that phenomenon is that Canadian employers may have responded to technological changes and/or more intense competition within industries and from abroad by cutting wages for newly hired workers while maintaining those of workers with greater seniority.

26. The period is restricted to three years due to statistical constraints.

27. In Ireland, Portugal and the United States, this corresponds to a decrease in time spent in low-paid jobs, while in Germany and Italy, time spent in non-employment decreased, and both decreased in Spain.

28. Except for France, where it corresponds to higher time spent in non employment, this reduction in the period spent in high paid-jobs is mostly compensated by an increase in the time spent in low-paid jobs.

29. Austria and France are two exceptions, since the low-educated have respectively higher and equal upward mobility than the medium/high-educated.

30. The analysis is restricted to countries with similar shares of low-educated in the population, because otherwise, the differences in performance includes a compositional effect. For example, it is logical that in Portugal, where more than 70% of the 25-64 age group is low-educated, a smaller share of the low-educated is low-paid (as the median wage probably corresponds to a low-educated worker) or not employed (the less educated the population, the smaller the technological bias against the low-educated; there is thus more labour demand for the low-educated and thus higher participation rates).

31. Calculations done in the same way as for low-paid workers using ECHP and SIPP, not shown in the report. Workers high-paid at the beginning of the period spent between one and three months in non-employment.

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Chapter 6

Understanding Policy Interactions and Complementarities, and their Implication for Reform Strategies

Can different combinations of policies and institutions deliver similarly high employment rates? Since there are important interactions between macroeconomic, labour and product market policies, countries can take advantage of synergies and compensating mechanisms in assembling policy packages and building political support for reform. Nonetheless, only a few packages have been identified which can achieve high employment while also assuring fiscal sustainability and resilience in the face of adverse economic shocks. These successful policy packages combine stability-oriented macroeconomic policy and competitive products markets with a good overall incentive structure in the labour market. Two broad reform strategies for structuring labour market incentives can be identified in the OECD countries which have achieved high employment rates. These strategies differ in their implications for the level of public spending (and taxes) and the degree of risk and inequality characterising labour market – factors that play a key role vis-à-vis *the political acceptability of structural reforms.*

Since the formulation of the 1994 Jobs Strategy, there has been growing recognition that the effects of reforms in one area may depend on policy settings in other policy areas. Such policy interactions and complementarities do not call into doubt the intrinsic effect that each policy and institution discussed in Chapter 3 has on labour market performance, but suggest that it is appropriate to look at the constellation of policies in all areas in the designing of reforms in any one area. This chapter examines two types of interactions that are potentially important for labour market performance: *i)* the interaction between labour and product market policies and institutions on the one hand and the macroeconomic environment and policies on the other hand; and *ii)* the interaction between different labour and product market policies and institutions. The chapter concludes with a discussion of the political economy of labour market reform.

1. Labour market policies and institutions and the macroeconomic environment

The 1994 Jobs Strategy recognised the role of general macroeconomic conditions in partly shaping labour market performance and the importance of macroeconomic policy in reducing unemployment by providing a stable macroeconomic environment. The cross-country/time-series econometric estimates reported in Bassanini and Duval (2006) confirm this assessment. The analysis spans three decades, encompassing in particular the oil shocks and the productivity slowdown of the 1970s as well as the sharp increase in real interest rates which took place in the late 1970s and early 1980s. It is found that negative total factor productivity (TFP) shocks, deteriorations in the terms of trade, increases in long-term real interest rates and labour demand shocks negatively affect labour market performance.[1]

In recent years, however, it has been advanced that macroeconomic shocks play a greater role in explaining long-term labour market performance than what the analysis of direct links would suggest. On the one hand, the interaction of adverse macroeconomic shocks and unfavourable structural policy settings may result in a persistent weakness in the labour market. On the other hand, labour market reforms may have significant beneficial effects on economic performance in general and on fiscal positions in particular, that may pave the way for further reforms and thus set in motion virtuous circles. These two issues are explored below.

1.1. The interaction between macroeconomic shocks and labour market policies and institutions

It has recently been argued that the current degree of heterogeneity in policies and institutions across OECD countries largely pre-dates – and is therefore unable to account for – the rise in the cross-country dispersion of unemployment rates which took place since the early 1970s (Blanchard and Wolfers, 2000). A complementary explanation stresses the role of interactions between existing institutions and the series of adverse macroeconomic shocks OECD countries went through during the past three decades, including, *inter alia*, oil price shocks, real interest rate shocks and the slowdown in the pace

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of technological progress. Provided that these adverse shocks have been frequent and that certain policies and institutions have made their unemployment effects highly persistent, this could account *a priori* for the rise in unemployment observed in a number of – mainly European – OECD countries since the 1970s.

There are a number of channels through which cross-country differences in policy settings may lead to divergent employment outcomes in the face of common shocks. In particular, policies and institutions may amplify (mitigate) the initial unemployment impact of a shock, make it more (less) persistent, or both.

For instance, it has been argued that, by protecting labour market "insiders" from the risk of income loss, high unemployment benefits and/or strict employment protection legislation (EPL) can reduce the sensitivity of wages to general economic conditions, thereby preventing a swift adjustment of unemployment back to its initial level in the aftermath of a shock (see *e.g.* Blanchard, 1999). Moreover, theory suggests that strict product market regulation (PMR) can further increase unemployment persistence by making labour demand less sensitive to wages. By contrast, certain categories of active labour market programmes (ALMPs), such as job-search assistance, can increase the influence of labour market "outsiders" – including the long-term unemployed, youth and/or certain groups of female workers – in wage determination and thus reduce unemployment persistence. A high degree of centralisation and/or co-ordination of wage bargaining may also speed up wage adjustment to adverse shocks at the aggregate level. Likewise, housing market policies that facilitate labour mobility may dampen the unemployment impact of "reallocative" shocks – *i.e.* economic shocks that require a reallocation of resources across regions (for a recent overview of housing market policies and their economic effects in OECD countries, see Catte *et al.*, 2004).

Both *amplification* and *persistence* effects contribute to determine the degree of resilience of an economy's labour market to adverse macroeconomic shocks. In this respect, those policies and institutions that amplify the initial impact of a shock may not necessarily increase its persistence, and *vice versa*. For instance, while strict labour- and product-market regulations tend to increase unemployment persistence, high firing costs may deter firms from laying off workers in the short run and stringent PMR creates rents that may be used to minimise lay-offs initially, thus reducing the initial impact of a shock.

Recent empirical evidence points to cross-country differences in the resilience of output and employment to shocks – most prominently between the United States and continental European countries (see *e.g.* Amisano and Serrati, 2003; Balakrishnan and Michelacci, 2001; Balmaseda *et al.*, 2000), and previous OECD work on resilience to economic shocks suggests that structural policy settings seem to matter in this respect (see in particular Drew *et al.*, 2004). These findings are consistent with the empirical literature indicating that interactions between institutions and shocks have contributed to shape unemployment patterns over the past decades (Blanchard and Wolfers, 2000).

Following this latter strand of literature, Bassanini and Duval (2006) use dynamic panel regression models to assess the role of interactions between macroeconomic shocks and institutions – understood to encompass the structural policy settings emphasised in the 1994 Jobs Strategy – for determining unemployment. The key result of the empirical analysis is that there is clear evidence that existing policies and institutions affect the size and persistence of the increase in unemployment following adverse shocks, even when the direct unemployment effects of policies and institutions on the one hand, and shocks on

Table 6.1. **Interactions between policies/institutions and macroeconomic shocks**

The unemployment effects of macroeconomic shocks...		... are shaped to a significant extent by policies and institutions		
Nature of the macroeconomic shocks	Impact on unemployment[a]	**General policies and institutions**	Initial impact of shocks[a]	Persistence of shocks[a]
Slowdown in the trend of total factor productivity	+	Replacement rate	+	n.s.
Deterioration in the terms of trade	+	Tax wedge	–	n.s.
Increase in long-term real interest rates	+	Union coverage	n.s.	n.s.
Adverse labour demand shock	+	EPL	–	+
		Product market regulation	–	+
		High corporatism	–	(–)
		ALMPs	(–)	–
		Home ownership	+	(+)

ALMP: Active labour market progammes. EPL: Employment protection legislation.
n.s.: Not statistically significant.
a) A positive (negative) impact denotes an increase (decline) in unemployment. (+) or (–) denotes positive or negative impact in some, but not all, empirical estimates.
Source: Bassanini and Duval (2006).

Statlink: *http://dx.doi.org/10.1787/670432454267*

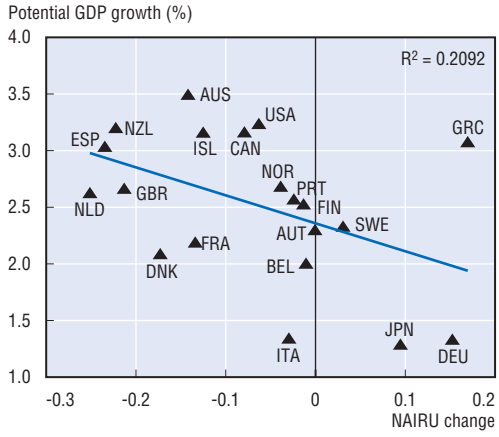
the other, are taken into account (see Table 6.1). This analysis – which is discussed in some detail in Chapter 7 – confirms that structural reforms in labour and product markets can enhance the resilience of the economy to adverse shocks.

1.2. Labour market reforms improve the macroeconomic and public finance performance

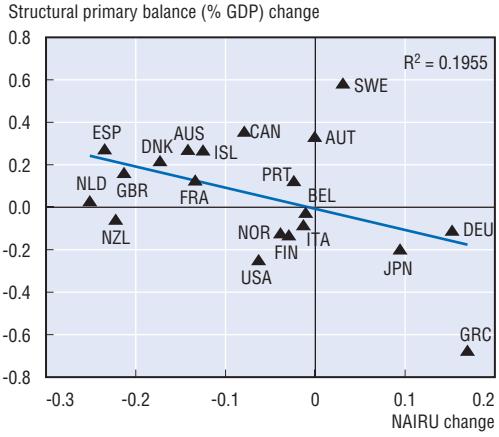
Most OECD countries that have been successful in reducing unemployment during the past decade, have also posted a relatively strong improvement in potential growth, which on its own contributed to improvements of structural budgets by increasing structural tax receipts and/or reducing structural spending on labour market programmes (Figure 6.1).[2] There are a number of exceptions, however, reflecting changes in fiscal policy. For example, in the Netherlands and New Zealand, the public finance position did not change significantly despite visible improvements in labour market conditions.

Figure 6.1. **Unemployment, growth and public finances**

Panel A. **NAIRU change and potential GDP growth, average annual values, 1994-2004**



Panel B. **Changes in NAIRU and the structural primary budget balance (% GDP), average annual values, 1994-2004**



Source: OECD Economic Outlook database.

Statlink: *http://dx.doi.org/10.1787/107052754743*

In addition, while structural reforms of the labour market may have reduced unemployment and increased potential growth, it is worth noting that potential growth has also been fostered by a variety of other factors – such as rising productivity because of technical progress. This notwithstanding, recent studies suggest that structural reforms of labour market institutions can exert a strong impact on aggregate employment, potential GDP and public finances (see Box 6.1).

In a similar vein, the OECD Interlink model has been used to simulate the impact of lower structural unemployment on potential growth and public finances.[3] The simulations assume that: *i)* the employment gains take place in the business sector; *ii)* the economies progressively adjust to the reduction in structural unemployment so that both real wages and real returns to capital go back to baseline in the medium term; and *iii)* total factor productivity growth is unaffected by the reduction of structural unemployment. The latter two assumptions imply that productivity growth remains constant compared with baseline in the medium term. Therefore, the above three assumptions together imply that the rise of employment above baseline translates one-to-one into higher potential GDP in the business sector.

The medium-term impact on potential GDP and the structural primary budget balance of a 1 percentage point drop in structural unemployment following structural reforms could be significant (Table 6.2). The impact on potential GDP ranges from 1% in Portugal to 1.6% in Norway. The impact is higher in the euro area than in the United States or Japan, reflecting the higher proportion of initial unemployment relative to the business-sector employment. Improvements of structural primary balances range from 0.3% of GDP in a number of countries to 1.2% in Denmark. They depend on the generosity of the unemployment benefit system as well as on the degree of tax progressivity. The impact is thus stronger in Nordic countries and weaker in the United States and Japan while the euro area stands in an intermediate position.

These results are illustrative only and subject to a number of uncertainties. First, they do not take into account a possible increase of the labour supply in response to the fall of structural unemployment. Second, improved budget balances may allow additional reductions in the tax wedge that could strengthen the beneficial impact of labour market reforms.[4] Third, the initial reduction of structural unemployment in the above simulation was assumed to stem from measures exogenous to the budget, while in reality employment-enhancing reforms are likely to have also an up-front impact on public finances.[5] For example, decreasing the tax wedge will lead to declining tax revenues in the short run as the labour market and the economy as a whole take time to adjust to the more favourable conditions put in place by the reforms. Moreover, *ad hoc* tax cuts or government subsidies could be implemented in an attempt to compensate those losing from reforms. For the EU-15 countries (except Greece), Deroose and Turrini (2005) estimate that major labour market reforms[6] implemented during the 1970s through the 1990s have entailed, directly or indirectly, deficit pressures on the public budget, although of relatively low magnitude on average (0.3-0.45% of potential GDP).[7]

Summing up, labour market policies and institutions may partly shape the employment effect of adverse macroeconomic shocks and impinge on the macroeconomic environment. In other words, interactions between structural and macroeconomic policies clearly matter in determining both growth potential and employment. In a similar vein, a review of the impacts of various labour market policies and institutions showed that reforms in these

Box 6.1. **The macroeconomic and public finance impact of labour market reforms: a review of selected studies**

For the United Kingdom, Barrel *et al.* (2003) use an extension of the National Institute of Economic and Social Research (NIESR) model to estimate the macroeconomic and public finance impact of activation policies. The latter take the form of a reduction in the number of lone parents and disabled people claiming benefits by 5%, bringing them into the labour market. Because of the inflow of these (newly active) job-seekers, real wages would go down compared with the baseline, thus lowering unit costs and domestic prices with positive repercussions on external competitiveness. After five years, output would increase by around 0.2% compared with the baseline and employment by 0.4%. The unemployment rate could remain broadly unchanged because higher output could "encourage" additional inflows of individuals into the labour force. Moreover, the new job-seekers might partly displace job prospects for the currently unemployed, *i.e.* they could take up some of the jobs that the current unemployed would have taken up. Despite a constant unemployment rate, the budget balance would improve as a result of higher output.

The NIESR model has also been used to evaluate the economy-wide impact of the New Deal for Young People programme in the United Kingdom, introduced in April 1998 with the objective of reducing long-term unemployment among the youth (White and Riley, 2002). The fall in long-term unemployment resulting from the programme is estimated to have put downward pressure on real wages, thus allowing aggregate demand to expand without rising inflation. Moreover, wage subsidies and direct government employment creation is also seen to have increased labour demand. Because of these policies, GDP growth is estimated to have increased by around 0.1% per annum since the introduction of the programme, compared with baseline. Thanks to lower unemployment and higher employment and consumer spending, government spending decreased and tax receipts increased, so that the actual costs of the programme are estimated at around 40% of the initially estimated costs (around 0.05% of GDP per annum).

In general, the main channel through which structural reforms are expected to have a major macroeconomic impact is through exerting downward wage pressures. For example, Pichelmann and Roeger (2002) simulate the impact for the EU of a reduction of the wedge between market wages and reservation wages – *i.e.* the wages above which workers are willing to take up jobs – sufficient to reduce structural unemployment by 1%. In the short term, this reduction increases labour demand, the more so the higher the price elasticity of aggregate demand. The increase in labour demand eventually translates into higher output by around 0.6% compared with the baseline and higher employment by 0.8% in the EU as a whole, after 10 years. Similar results are obtained by Roeger and In't Veld (2004) by assuming a fall in workers' reservation wage because of a decrease in the unemployment benefit replacement ratio.

In a general equilibrium framework with imperfect competition in both product and labour markets, Bayoumi *et al.* (2004) show that reducing wage mark-ups in the euro area to the US levels would increase both hours worked and per capita GDP by around 3.5% above the baseline, in the medium term. Such policies would also have positive spill-over effects on the US economy because of improvements of its terms of trade.[1]

A fall in structural unemployment thanks to reforms would have a much stronger macroeconomic impact if the rise in employment "encourages" more individuals to search for a job, thus boosting labour force participation. The European Commission (2002c) assumes that reforms reducing structural unemployment by 1 percentage point could also

Box 6.1. **The macroeconomic and public finance impact of labour market reforms: a review of selected studies** *(cont.)*

gradually increase the participation rate in EU countries by 1.5 percentage points. The result would be an increase of employment above the baseline by slightly less than 3.5% after 10 years.[2] Johnson and Downes (1994) estimate for Australia that a fall in structural unemployment by 1 percentage point could progressively "encourage" an increase of the labour force by 1.4% in the medium term compared to the baseline. This increase in labour supply would add further downward pressure on before-tax real wages so that both employment and GDP would rise by 2.5 percentage points above the baseline.

1. Bayoumi *et al.* (2004) also show that reducing the price mark-ups in the euro area to US levels would lead to even bigger benefits as it would increase hours worked by 4.5% and per capita GDP by around 8.5% compared with the baseline. Positive spill-over effects on the US economy would also be higher. The authors estimate that reductions of both price and wage mark-ups in the euro area towards US levels would halve the difference in per capita GDP between the United States and the euro area.
2. The European Commission (2002c) also assumes that the average productivity of new employees is 80% of that of existing workers. Therefore, the increase in GDP compared to the baseline (2% after 10 years) would be lower than the rise in employment.

Table 6.2. **Medium-term impact of a 1 percentage-point reduction in structural unemployment on potential growth and budget balance**

Percentage points

	Potential GDP[a]	Cyclically adjusted budget balance[b]
Australia	1.2	0.3
Austria	1.2	0.3
Belgium	1.3	0.8
Canada	1.4	0.5
Denmark	1.5	1.2
Euro area	1.3	0.6
Finland	1.5	0.9
France	1.4	0.6
Germany	1.2	0.6
Greece	1.3	0.6
Iceland	1.3	0.6
Ireland	1.2	0.4
Italy	1.3	0.6
Japan	1.1	0.3
Netherlands	1.2	0.8
New Zealand	1.2	0.5
Norway	1.6	1.0
Portugal	1.0	0.4
Spain	1.3	0.5
Sweden	1.5	1.0
Switzerland	1.1	0.3
United Kingdom	1.3	0.7
United States	1.2	0.3

a) In the business sector.
b) Deviation in percentage points from levels in medium term scenario of OECD (2005), *OECD Economic Outlook*, No. 77, June, Paris.
Source: OECD simulations (see text). Statlink: *http://dx.doi.org/10.1787/852742673375*

areas can have significant beneficial macroeconomic effects. In turn, this can provide a basis for further reforms and set in motion a "virtuous" circle, whereby earlier reforms create the fiscal conditions for enacting further reforms.

2. Policy interactions and packages

The 1994 Jobs Strategy recommendations encompassed a broad range of policy prescriptions on labour market issues, but left the question of the precise balance between the different policy planks open. However, it was sometimes interpreted as endorsing the view that there was only one right institutional configuration for achieving good employment outcomes (see for instance Freeman, 2005).

The 1994 Jobs Strategy stressed the importance of co-ordinating policy planks in a number of labour market areas, but it did not elaborate much on the implication of possible interactions between labour- and product-market policies and institutions. Since then, there has been an increasing body of empirical evidence about the existence of such interactions. Chapter 3 of this report also points to apparent interactions between and among policies and institutions (*e.g.* some countries have achieved high employment despite offering generous unemployment benefits, by combining high replacement rates with certain forms of employment protection and a strong emphasis on activation policies). Accordingly, the employment outcomes of some policies and institutions may mutually reinforce or, on the contrary, offset each other. This does not necessarily call into question the intrinsic effect that individual policy planks may have on labour market performance, but may partly explain why countries with different policy settings appear to achieve similar employment outcomes.

2.1. Existing policy packages and employment performance

Cross-country panel regression studies, notably Bassanini and Duval (2006), show that there is a relationship between policies and employment outcomes. However, such findings are valid for the "average" country, which leaves open the possibility that countries may achieve equally good results by following different strategies. The question then arises as to how, in practice, countries can take advantage of possible synergies or compensating mechanisms between policies and institutions, so as to implement coherent policy packages.

As a first approximation, simple statistical techniques are used to identify empirical regularities in the data without any theoretical priors regarding the functioning of labour markets (see Annex 6.A1). This descriptive analysis, though not implying any causality links, suggests that four different regimes of labour market functioning can be identified within the OECD area, at the beginning of the 2000s (see Table 6.3):

- First, and in line with the base-case estimates described in Chapter 7, less strict product market regulation and relatively low tax wedges and unemployment benefits are associated with good labour market performance in a number of English-speaking countries. In addition, the latter tend to exhibit relatively light employment protection legislation and low-to-moderate expenditures on active labour market programmes. Union density as well as collective bargaining coverage tend to be below average in these countries.
- Second, some European countries appear to achieve equally good employment outcomes with extremely different policy settings. These countries tend to be characterised by centralised and co-ordinated systems of industrial relations, with a high degree of coverage of collective agreements and often strong emphasis on social dialogue (Auer, 2000). Unemployed workers benefit from a solid and comprehensive safety net, where relatively generous unemployment benefits go hand-in-hand with solid activation strategies. On the demand-side, these countries tend to exhibit, on average, relatively less strict product market regulations and moderate to high levels of tax-wedges and employment protection.[8]

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Table 6.3. **Four different regimes of labour market functioning**[a]

	OECD unweighted average	High employment outcomes		Low employment outcomes	
		English-speaking countries, mainly[b]	North European countries, mainly[c]	Countries of continental and southern Europe, mainly[d]	Countries of eastern Europe[e]
Employment protection legislation	2.01	1.38	2.13	2.71	1.83
Generosity of unemployment benefit system[f]	27.81	18.23	39.86	36.17	9.69
Active labour market programmes[g]	29.25	15.76	64.14	25.84	3.46
Tax wedge[h]	27.10	18.54	27.42	34.33	32.43
Union coverage	59.96	30.75	83.33	82.57	38.33
Union co-ordination	2.88	1.88	3.92	3.79	1.33
Product market regulation	1.42	1.20	1.28	1.55	1.97
Employment rate	67.11	70.92	71.91	62.54	58.00
Unemployment rate	7.47	5.30	4.79	8.97	15.12
Total LMP expenditures[i]	1.86	0.98	2.68	2.60	0.82
of which: ALMP expenditures[j]	0.76	0.39	1.31	0.94	0.25
Income inequalities (Gini index)[k]	29.35	31.50	25.58	29.85	31.35
Relative poverty rate[l]	9.64	11.78	7.77	9.86	7.05

a) This country classification is derived from a Principal Component Analysis (see Annex 6.A1), a simple statistical technique which helps to identify existing combinations of policy settings and to highlight similarities and differences across countries. However, some countries are barely representative of the group of countries to which they belong, being close to the frontier between two regimes of labour market functioning. This is for instance the case for Austria, Finland, Germany, Ireland, Japan, Korea, Portugal, Sweden and Switzerland, as shown in the Annex 6.A1.
b) This group of countries includes Australia, Canada, Japan, Korea, New Zealand, Switzerland, the United Kingdom and the United States.
c) This group of countries includes Austria, Denmark, Ireland, the Netherlands, Norway and Sweden.
d) This group of countries includes Belgium, Finland, France, Germany, Italy, Portugal and Spain.
e) This group of countries includes the Czech Republic, Poland and the Slovak Republic.
f) Average unemployment benefit replacement rate across two income situations (100% and 67% of APW earnings), three family situations (single, with dependent spouse, with spouse in work), over a five-year period of unemployment.
g) ALMP expenditures per unemployed workers as a percentage of GDP per capita.
h) Tax wedge between the labour cost to the employer and the corresponding net take-home pay of the employee for a couple with a dependent spouse and two children earning 100% of APW earnings.
i) Total expenditures on active and passive measures as a percentage of GDP.
j) ALMP expenditures as a percentage of GDP.
k) Gini index for total population. Not available for Korea and the Slovak Republic.
l) Calculated as the proportion of the population with income below 50 % of the current median income. Not available for Korea and the Slovak Republic.
Source: See Bassanini and Duval (2006).

Statlink: *http://dx.doi.org/10.1787/734081116461*

- Third, labour market performance is below the OECD average in a number of countries of continental and southern Europe, which stand out for having relatively high tax-wedges and stringent employment protection and product market regulations, while devoting less emphasis to activation policies than is the case in the previous group of countries – despite the fact that some of them have generous unemployment benefit systems. In addition, the coverage of collective agreements tends to be high and, in most cases, supported by important legal extension mechanisms (Brandt *et al.*, 2005).
- Fourth, in transition economies of eastern Europe, poor employment outcomes are associated with, on average, very low expenditures on both active and passive labour market programmes, but high tax wedges and relatively stringent employment protection and product market regulations. By contrast, trade unions play a relatively minor role in these countries.

While this four-way classification of countries bears a distinct resemblance to previous analyses (see for example Esping-Anderson, 1990; and more recently, Sapir, 2005), it is worth noting that such broad classifications are somewhat arbitrary. In particular, they rely on a limited set of policy indicators, which do not account for important – but difficult to measure – aspects of the labour market framework, as for instance, the integration of active and passive policies. Moreover, the present classification does not account for policy changes and progress achieved in a number of countries over the recent years and, more generally, it does not allow to link employment outcomes to policy changes.

This notwithstanding, two striking facts emerge from Table 6.3 when looking at the two groups of countries with good labour market performance. First, on average, extremely different degrees of "interventionism" in almost each selected policy area (with the exception of product market regulation) may lead to very similar employment and unemployment rates. This suggests that there is not a single road for achieving good employment performance. Second, the approach of the second group of countries (North European countries) has a clear budgetary cost. In these countries, governments spend on both active and passive employment measures about 2.5 times more, as a percent of GDP, than is the case in countries belonging to the first group (mainly English-speaking countries). And, as regards active measures only, expenditures are more than three times higher. On the other hand, income inequalities as well as relative poverty rates appear to be lower than in the first group of countries.

2.2. Policy interactions

Obviously, it is not possible to draw policy conclusions on the basis of the above simple associations and more sophisticated analysis is needed to deliver clearer conclusions. To this end, econometric research has been carried out in search for robust interactions between policies and institutions on the one hand, and employment outcomes on the other. Chapter 7 presents empirical findings on interactions and complementarities between specific combinations of policies and identifies several important examples.

More generally, there is evidence that *any* reform that increases employment is likely to be complementary with *all* other employment-enhancing reforms.[9] In other words, the impact of a reform will be low (high) if all institutions are adverse (favourable) to employment, no matter which exact combination of institutions is responsible for the adverse (favourable) pattern. Bassanini and Duval (2006) show that taxes, unemployment benefits, product market regulation and union density are complementary with one another. For example, Table 6.4 simulates the additional gain that would be obtained by undertaking jointly two reforms that would each reduce unemployment by 1 percentage point if implemented separately.[10] All possible combinations of two such reforms, while keeping an unchanged policy stance as regards to the other two, yield a total reduction of unemployment between 2.25 and 2.37 percentage points for the "average" OECD country, instead of 2 percentage points when interaction effects are not taken into account. In other words, policy complementarities are estimated to amplify the unemployment effects of separate reforms by 12% to 19%.

The following main findings seem to emerge from the quantitative analysis of the impact of institutions and policies on labour market performance:

- Several policies and institutions that affect mainly the demand-side (*e.g.* the tax wedge and product market regulation) appear to have unambiguous negative effects on labour market performance.

Table 6.4. **Simulated effect of reform complementarities**

	Unemployment benefits	Tax wedge	Union density	Product market regulation
Unemployment benefits				
Tax wedge	–0.30			
Union density	–0.37	–0.26		
Product market regulation	–0.36	–0.25	–0.33	

Note: The table shows the reduction in unemployment (in percentage points) that would be obtained from the combined reform of each of the indicated pairs of institutions, in excess of the sum of the unemployment reductions implied by each reform taken in isolation. As a standardisation, reforms are set in such a way that each of them, taken in isolation, would bring about 1 percentage-point drop in the unemployment rate for the average country.
Source: Bassanini and Duval (2006).

Statlink: *http://dx.doi.org/10.1787/522115275005*

- Different combinations of supply-side policies deliver similar employment outcomes. More specifically, a policy mix with low unemployment benefits and low investment in active labour market programmes appears to perform no better than a policy mix with high unemployment benefits and high investment in active labour market programmes, combined with tight monitoring of job-search behaviour.
- There is some evidence that comprehensive structural reforms yield greater employment gains than separate, "piece-meal" reforms, although the magnitude of such policy complementarities is found to be moderate for the average OECD country.

Thus, the analysis suggests the existence of two broad alternative employment-enhancing reform strategies that, by and large, resemble each other in terms of demand-side policies, but differ with respect to supply-side policies. All strategies not geared at substantially removing barriers from the demand-side (*e.g.* barriers to competition) appear to be unambiguously suboptimal. In one of these successful strategies (well represented by a handful of English-speaking countries), reforms are designed to strengthen market mechanisms on both demand- and supply-side. In the other successful strategy, *substantial* removal of barriers from the demand-side is coupled with an "interventionist" policy on the supply side, with relatively generous active and passive programmes, which are nonetheless integrated to contain disincentive effects. This approach is well represented by certain European countries, such as Denmark and to a lesser extent, the Netherlands. In both countries, moderately-low product market regulations do not constitute major barriers to competition, but tax-wedges remain relatively high. That said the distortionary effects of labour taxes may be lower in these economies, where centralised and co-ordinated systems of industrial relations may allow workers to recognise the linkage between the taxes that they pay and the benefits that they receive (Summers *et al.*, 1993). And, for similar reasons, generous unemployment benefits are less likely to translate into excessive wage claims since trade unions may well internalise outsider interests in wage negotiations.

The latter approach, however, while offering more room for manoeuvre to guarantee high degrees of social protection and small income inequality, involves large public expenditures that must be financed. For this reason, it is unlikely to be viable in countries where the tax pressure is already high, without major and successful efforts to improve the efficiency of public spending. Furthermore, the feasibility of each reform strategy might also depend on political-economy considerations, including the quality of industrial relations, that will be discussed in the next section.

3. Political economy of reforms

Most labour market institutions were first introduced with the aim of enhancing workers' welfare and improving employment conditions, influencing both the way total income is shared between different socio-economic groups and employment outcomes (see *e.g.* the seminal work by Layard *et al.*, 1991). In this section, the political economy of reforms will be discussed as part of this general framework of labour market analysis. Important considerations, more specifically related to political and social sciences, will be largely ignored, as they lie outside of the scope of this report.

Heterogeneity in the population and the existence of different interest groups appear crucial to explaining political resistance to structural reforms (Alesina and Drazen, 1991). Some groups of individuals or enterprises may end up worse off as a result of product or labour market reforms, even as others benefit from new institutional arrangements and overall efficiency improves. This heterogeneity in the distribution of the benefits and costs means that the political viability of a reform depends on the relative political influence of the potential winners and losers.

In addition to this "distributional" effect, costs and benefits of structural reforms may arise at different points in time and through more or less direct channels. As an illustration, a recent study from the IMF suggests that labour market "deregulation" tends to increase unemployment in the short run and reduce it in the long run. More precisely, the unemployment rate would start to decrease two years after the introduction of policy changes and the beneficial effects of the measures would take several years to fully materialise (International Monetary Fund, 2004). In a similar vein, Elmeskov *et al.* (1998) underline that in a number of OECD countries that began introducing labour market reforms in the early to mid-1980s, structural unemployment fell over the entire subsequent decade. In this respect, the idea that people tend to be more confident about the direct or short-term effects of policies than about the indirect or long-term ones is relatively widespread (Bean, 1998; Blanchard, 2004; Saint-Paul, 2004). Thus, this "timing/perception" effect may also impinge on the political feasibility of reforms.

3.1. *Distributional and timing effects*

Both the distributional and the timing effects of structural reforms may vary depending on the institution or policy considered. This probably explains why implementation has been uneven across different components of the 1994 Jobs Strategy reform agenda, even as most OECD countries have undertaken reforms in line with at least some of the policy guidelines during the past decade (see Chapter 3).

Reform patterns and the number of potential losers

Governments have been particularly reluctant to introduce policy changes in areas such as employment protection legislation for permanent contracts or wage-setting systems. Such reforms are likely to be faced with strong opposition since the resulting costs arise before the benefits and mostly affect incumbent employees, *i.e.* the majority of voters. Indeed, policy changes in these areas imply weaker job security and the risk of income losses, which appear as soon as the reform is enacted. By contrast, the beneficial job creation effects only emerge gradually. And while such structural reforms may benefit the incumbent employees, insofar as some of them may lose their job in the future, they are unlikely to look that far ahead.

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Likewise, governments have been hesitant to prohibit employers from using mandatory retirement – in countries where such practices exist. Indeed, it may be in the interest of individual employers to terminate workers' contracts after a certain age – even though these workers may wish to carry on working and may have the skills to do so. Such practices, however, run counter the overarching objective of postponing retirement in line with improved longevity, which would benefit the economy and society as a whole.

Moreover, uncertainty about the reform effects may reduce the political acceptance of new institutional arrangements. This is especially the case when reforms are not perceived as being well designed and when the rationale for reforming is not clearly explained. Moreover, there may be a bias toward the status quo and against reform whenever the individual gainers and losers – or at least some of them – cannot be identified beforehand (Fernandez and Rodrik, 1991).[11]

Structural reforms, from which costs arise first whereas benefits come later, may encounter less political opposition if the burden of the policy change is borne initially by the unemployed. The latter are less likely than employers or incumbent employees to form a political majority capable of blocking the reform, since they are less numerous and often less organised.

By contrast, labour tax reductions tend to be more widely accepted by the population. This is probably why many countries have undertaken reforms in this policy area during the past decade. Even if the expected beneficial effects may take time to materialise, these measures entail no explicit or immediate costs for any category of workers or employers. They primarily impact on public finances. Thus, the government may be seen as the main loser while the burden of the reform remains virtually a shadow cost for the population as a whole. Indeed, whereas these measures are likely to imply reductions in public expenditure in the future or tax increases in some other areas, funding issues involve the complex process of the overall public budget balance, and they rarely emerge in an explicit manner in the public debate at the very beginning of the reform.

The role of special interest groups

Generating consensus for reforms may also suffer from the "collective action" problem that the costs of reforms are concentrated on relatively small and well-organised target groups, while the benefits tend to be diffused over a larger but more heterogeneous electorate (Olson, 1965). Indeed, a diverse array of groups, including groups of bureaucrats, entrepreneurs and workers, may oppose structural reforms in order to preserve their own interests:

- Public sector reforms such as reorganisation or contracting out of public services can represent a threat to the interests of certain public employees. A study for Norway by Rattso and Sorensen (2004) finds that public employees are less likely to support reform in the public sector than the rest of the population. The probability of such reforms taking place in a particular area was found to be negatively related to the share of public employees in that area.
- As regards product market regulation, special interest groups or lobbies may contribute to shape the regulatory framework by either exerting direct control or lobbying politicians and government officials that take decisions in this domain. As noted by Nicoletti (2005), there are sometimes close ties between natural monopoly industries – such as energy, telecommunications or railways – and local or central governments. And in more competitive industries – such as road freight, retail distribution or professional services – trade associations have been often able to develop effective lobbying groups.[12]

- Minimum wages provide another case in point. While minimum wage legislation directly affects a minority of incumbent employees, reforms in this area may be seen as giving priority to efficiency criteria over equity concerns and are likely to be strongly opposed by trade unions.

More generally, as far as labour market institutions are concerned, the quality of industrial relations and the extent to which trade unions and employer organisations share common views on how the labour market functions and are able to agree on common objectives may play a key role as regards labour market performance in general, and the political feasibility of reforms in particular. Indeed, Blanchard and Philippon (2004) suggest that the quality of labour relations, *i.e.* the quality of the dialogue that firms and unions have, may partly explain the evolution of unemployment across European countries over the past 30 years. To take another example, Auer (2000) underlines that, in Denmark, Ireland and the Netherlands, the employment recovery achieved over the 1990s went hand-in-hand with greater emphasis on social dialogue. In these countries, centralised and co-ordinated systems of industrial relations, involving strong co-operation between social partners and the government, may have helped, at least in part, to pass key reforms in a way which aligned different interests of specific groups with the interests of society and the economy as a whole. As a consequence, social partners have been engaged in policy changes that have not always been easy to accept by all parties concerned (see Box 6.2).

3.2. The role of policy design in overcoming adverse distributional and timing effects

Governments have followed different strategies to cope with potential political opposition to reform. Partial reforms at the first stage of the process may have been more or less successful in gathering political support for further and deeper policy changes. In most cases, reforms were introduced gradually, taking advantage of potential compensating mechanisms and political complementarities between different policies and institutions.

Partial reforms: reforming at the margin as a way to implement further and deeper policy changes

To avoid conflicts with key constituencies, governments may first introduce reforms at the margin of the core labour market while keeping existing institutional arrangements for incumbent employees virtually intact. This tends to reinforce labour market duality, which in turn may gradually build up public support for subsequent reforms to core labour market policies and institutions. Reforms of employment protection legislation (EPL) that were implemented in a number of OECD countries over the past few decades are a typical example of such a strategy (Saint-Paul, 2000; Dolado *et al.*, 2002). As discussed in Sub-section 3.3 of Chapter 3, the most prevalent path of reform consisted in facilitating the use of fixed-term contracts and/or the recourse to workers hired from temporary agencies while leaving existing provisions for permanent or regular workers virtually unchanged. As a result, in countries where dismissal laws for permanent workers were overly restrictive, notably in Portugal and Spain, the share of temporary workers in total employment grew markedly, which seems to have paved the way for subsequent reforms to EPL for permanent workers (Box 6.3). In the specific case of the Spanish EPL reforms, Dolado *et al.* (2002) clearly show that, as from 1993 (and until 1998), the ratio of employees under permanent or regular contracts relative to the whole labour force was lower than 0.5, which may have opened a "window of opportunity" for the reform that later took place. However, it is worth noting that in both countries, dismissal laws have remained fairly strict by OECD standards and still are associated with a comparatively high degree of labour market duality.

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Box 6.2. **The quality of industrial relations and the political feasibility of structural reforms: selected examples of Denmark, Ireland and the Netherlands**

In Denmark, Ireland and the Netherlands, concerted efforts by governments and the social partners led to the conclusion of social pacts: the first was concluded in 1982 in the Netherlands (the Wassenaar Agreement), followed by the "Declaration of Intent" in Denmark and the "Programme for National Recovery" in Ireland, both signed in 1987. As noted by Auer (2000), underlying these pacts, was the willingness of the partners to tackle the problems facing the economy through a concerted approach based on wage moderation and a boost in competitiveness, while maintaining but reforming the Welfare State.

In Ireland, wages have been co-ordinated through a series of Central Agreements involving the trade unions and employers (as from 1987). At the core of these agreements has been the acceptance by trade unions of relatively modest increases in wages. In return, the government agreed to reduce the tax burden on workers, allowing take-home pay to rise faster than otherwise (Glyn, 2005).* In the Netherlands, as part of the Wassenaar Agreement, trade unions agreed to give up wage indexation and to moderate wage claims. Along the same line, the statutory minimum wage was cut by 3% in 1984 and then frozen until 1989. In compensation, employers agreed to expand the opportunity for part-time work (Nickell and van Ours, 2000). In Denmark, trade unions have agreed to changes in welfare systems which have not always been in the short-term interests of their members. For instance, unemployment benefit duration was reduced from nine to four years over the period 1994-1999. Likewise, in the Netherlands, as from the late 1980s, the legislation concerning sanctions for unemployment benefits was significantly tightened, leading to an increase in the number of benefit sanctions from 27 000 in 1987 to 140 000 in 1994. As from the mid-1990s, unemployment benefit administration was also tightened in Ireland and activation measures were introduced (OECD, 2003a, Chapter 4).

* However, these agreements have taken place against an environment where union power was waning in the private sector due to the increased importance of international, and foot-loose, companies in the Irish economy so it is not clear if social dialogue *per se* was the critical factor.

Looking for compromise: offering compensations

Governments should be able to overcome the resistance of potential losers from reforms by implementing compensating schemes, as for instance, in the spirit of the recent Austrian reform of severance pay legislation. In this country, the employer is no longer required to provide a compensation at the time of dismissal. Instead, employers have to pay a monthly contribution into "individual severance accounts", which can be cashed by the worker at the time of dismissal. The new system helps ensure adequate income security for workers, while at the same time facilitating job mobility (see Sub-section 3.3 of Chapter 3).

There is also tentative evidence that workers tend to feel more secure in countries that spend more on passive and/or active labour market measures, while overly stringent EPL does not necessarily increase workers' perception of employment security (see OECD, 2004a, Chapter 2). Thus, successful activation strategies could pave the way for EPL reforms in building up a comprehensive and effective safety net for job losers. However, designing an effective and coherent system of active measures may require considerable fine-tuning. Thus, deep reforms to overly generous unemployment benefit systems that entail significant cuts in benefit levels or duration are likely to gather more political support if they are implemented gradually and include temporary "welfare compensating" schemes, as in Denmark (Box 6.4).

Box 6.3. **Reforming at the margin to pave the way for further policy changes: the EPL reforms in Portugal and Spain**

Portugal and Spain stand out for having over the past few decades passed the most substantial reforms to dismissal laws among OECD countries, both starting from a particularly strict legislation (OECD, 2004a, Chapter 2). Both countries have followed a similar path of reforms. In Portugal, the recourse to fixed-term contracts was liberalised in 1976. Then, in 1989/1991, the rules on dismissals and the legal regulation of temporary work were relaxed while at the same time counterbalancing this by restricting the use of fixed-term contracts. Firing restrictions were eased through a wider range of lay-off motives and the abolition of prior authorisation for collective dismissals (OECD, 1999a). At that time, one in six employees was a temporary worker, which was very high by OECD standards. This may have placed insiders in a weaker position to oppose the reform since temporary workers together with the unemployed were relatively numerous (OECD, 2002, Chapter 3). In Spain, restrictions on the use of fixed-term contracts were eased substantially in 1984. Reforms reducing employment protection for workers with permanent contracts were implemented in 1994 and 1997, in exchange for further restrictions in the use of temporary contracts (in 1994 and 2001), when the latter accounted for one-third of employment. Objective grounds for collective redundancies were extended and procedural requirements made less time-consuming. Finally, maximum compensation pay for unfair dismissal was reduced in 1997 (OECD, 1999a, Chapter 2; and 2004a, Chapter 2).

Box 6.4. **Smoothing political opposition by implementing reform gradually and through balanced approaches: the reform of unemployment insurance in Denmark**

Over the past decade, Denmark has substantially reduced unemployment benefit duration. And this has been done while implementing a compensation strategy for the unemployed that did not rely on ALMP only. First, the reform was *gradually* implemented in that benefit duration was first reduced from nine to seven years in 1994, then was further cut down to a maximum of five years in 1996 and finally, went down to four years in 1999. Second, while the activation principle was progressively reinforced over the three stages of the reform, the initial phase of reduction in benefit duration was compensated by the introduction of several long-term leave schemes for workers. Indeed, workers saw in these measures an increase in the possibilities of allocating their time between work, training and leisure. The unemployed considered the potential positive impact of these schemes on their ability to get a job. Some of these leave schemes were abolished subsequently, once the positive effects of the unemployment benefit reform became visible (Carcillo *et al.*, 2005).

Moreover, gradualism may help gather political support for new institutional arrangements by carrying information about the reform effect, thus reducing uncertainty about the size and the distribution of costs and benefits (Tommasi and Velasco, 1995). This, however, implies tight follow-up and rigorous policy evaluation.

Co-ordinated reforms

From a political economy perspective, various policies and institutions may be complementary in the sense that the existence of one of them increases political support for another (Saint-Paul, 2000). Thus, in principle, certain reform packages may help weaken

resistance to reforms. The United Kingdom and New Zealand provide interesting examples in this respect. In both countries, deep changes to the system of industrial relations have been part of the reform package – as a way to facilitate the adoption of other reforms (Box 6.5). It is also noteworthy that the reform process started in a context of severe economic crisis that probably helped to overcome resistance to structural reforms in strengthening the argument that existing policies could no longer be sustained. Such co-ordinated reforms are rare, however. And evidence on changes in bargaining structures calls into question the political feasibility of the first stage of such a reform process, that is the reform of industrial relations by direct government intervention.[13]

Box 6.5. **Co-ordinated reforms in the United Kingdom and New Zealand in the 1980s and early 1990s**

Over the 1980s, the British government introduced a sustained series of measures – eight major Acts of Parliament between 1980 and 1995 – imposing a legal framework on union activities and organisation. These legislative changes progressively restricted insider power through curbs on unions rights and privileges. A range of structural reforms were then implemented, notably affecting employment protection rights for permanent workers and minimum wage legislation (Gregory, 1998). In 1985, the minimum employment period for workers to claim unfair dismissal was extended from six months to two years and the final abolition of Wages Councils in 1993, after years of threat, removed the only form of minimum wage protection which then existed for low-paid workers. However, a general statutory minimum wage was introduced in 1999.

In New Zealand, the reform process started in the mid-1980s with a reorientation of macroeconomic policies and a liberalisation of financial and product markets. Labour market reforms followed in the early 1990s (International Monetary Fund, 2004). The Employment Contracts Act, which was enacted in 1991, introduced a number of restrictions on the ability of unions to intervene in industrial relations and to engage in industrial action. Major reforms in the welfare system were implemented at about the same time. In particular, eligibility criteria for unemployment-related benefits were tightened and benefit levels reduced. While reductions were not uniform across demographic groups and programmes, in a number of cases, benefits were cut significantly. For example, the maximum unemployment benefit available to single adults between the ages of 20 and 24 without dependent children fell by 25% in 1991. Overall, Maloney (2000) suggests that, on average, benefits were cut by 9.1% over the first half of the 1990s.

By contrast, there is evidence that product market liberalisation tends to facilitate changes in a range of labour market policies (Hoj *et al.*, 2006). And indeed, several countries which have undertaken labour market reforms recently had also deregulated their product markets beforehand (Brandt *et al.*, 2005). Intensified competition lowers product market rents and thereby the scope for rent sharing between employers and workers, which may gradually reduce the support for labour market institutions aimed at capturing or preserving these rents (Blanchard and Giavazzi, 2003). However, as pointed out by Blanchard and Philippon (2003), adjustment to the change in the environment may take time, and in this respect it is worth noting that, in a number of countries, labour market reforms have been comparatively more limited than changes in product market regulation. Moreover, at the first stage of the process, product market reforms may also be faced with strong opposition and, as noted in Hoj *et al.* (2006), they may require a well-designed sequencing of sectoral policy changes. For instance, it

may be useful to cope first with producers of intermediate inputs (*e.g.* freight transport), before moving to reforms that affect final consumer products (*e.g.* passenger transport) which are more likely to be faced with opposition from consumer constituencies insofar as they may generate quality concerns or fears about distributional effects.

The business cycle and the political feasibility of structural reforms

The 1994 Jobs Strategy recognised that "the best moment for the introduction of structural reforms is never obvious". Both economic recessions and expansions have their own advantages and drawbacks in this respect. As underlined by Drazen and Grilli (1990), the welfare losses associated with economic distortions and crises may help to overcome ongoing social conflict and political stalemate over needed reforms. In other words, high unemployment would increase incentives for co-ordinated collective actions in order to put the economy on a welfare superior path. However, weak labour market performance may increase workers resistance to reforms that have re-allocative consequences by strengthening their support for protective measures even if the latter are inefficient and contribute to high unemployment (Olson, 1965; Saint-Paul, 1998).

More generally, weak macroeconomic conditions may diminish public support for structural reforms insofar as they are likely to delay their beneficial effects on employment. Indeed, during the upturn of the cycle, concern about the effects of certain reforms may be somewhat attenuated (Bean, 1998). For instance it may be easier to reform unemployment benefit systems during upturns, when the outflow rate from unemployment tends to be relatively high and governments may face less budgetary constraints to implement ALMPs. On the other hand, when economic conditions are good, the need for change is less obvious, even if change in these periods would be much less painful.

Overall, this suggests that the political support for structural reforms would be highest right *after* a recession, *i.e.* at the beginning of the economic recovery. Recent studies find a positive association between high unemployment and the advent of economic crises on the one hand, and the propensity to undertake structural reforms on the other (International Monetary Fund, 2004; Duval and Elmeskov, 2005). Economic crises may improve awareness of the existence of inefficient policy settings. The economic recovery that follows the crisis may offer room for manoeuvre for pursuing the reform process. In this respect, accompanying fiscal or monetary policies can make it easier to sell the required reform in the first place, by fostering economic growth and job creation.

Notes

1. Care must be taken, however, in interpreting these findings. The fact that these shocks are estimated to have a significant impact on unemployment does not necessarily imply that labour market performance can be persistently affected by long-run changes in macroeconomic variables. In fact, the macroeconomic variables considered in the analysis of the Bassanini and Duval (2006) are simply "shocks": in some cases, they are mean-reverting by construction (such as TFP); in other cases, they are characterised by an historical pattern of stationarity (such as real interest rates).
2. The impressive performance of Ireland in terms of NAIRU changes (a yearly –0.8% on average) during the period 1994-2004 influences significantly the correlations and therefore this country is not included in the figure. On the one hand, Irish potential growth over the same period has been more than 7% and this would more than triple the correlation between NAIRU changes and potential growth. On the other hand, the structural primary balance in Ireland has deteriorated during the past decade, so that by including this country the correlation between NAIRU and structural primary balance changes would become almost zero.
3. See Turner *et al.* (1996) for a description of the supply side of the Interlink model.

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4. However, it should be kept in mind that the impact of a reduction in the tax wedge could vary across countries. For example, Chapter 7 shows that reductions of tax wedge would be most effective in countries with higher minimum wages or a higher degree of corporatism.

5. For instance, for the OECD countries considered in Bassanini and Duval (2006), a fall in structural unemployment of 1 percentage point would require labour-tax cuts of the order of 3.5% on average. As the private-employee and self-employed income share in total GDP is around 50% for these countries on average, this cut would entail non-negligible up-front budgetary costs of around 1.75% of GDP. Moreover, comparing these costs with medium-term budgetary benefits in Table 6.2 suggests that this measure would not be self-financing, even in the medium-term. Therefore, other budgetary measures would be needed to offset both short- and medium-term budgetary costs stemming from this type of reform.

6. Major labour market reforms are defined as those having an impact on labour market regulation indicators above the median or the mean.

7. The possibility that reforms could have a negative impact on the budget in the short-run has been explicitly recognised by the amended Stability and Growth Pact endorsed by the EU Finance Ministers in early 2005. Among other provisions, the amended Pact establishes that major structural reforms can represent a reason for deviating from the medium-term public finance objective.

8. Denmark and the Netherlands are the most striking examples of this regime of labour market functioning. Along this line, the Danish approach of "flexicurity" has proved to be rather effective in guaranteeing sufficient dynamism in the labour market – notably thanks to moderate employment protection legislation, allowing for a high degree of job mobility – and keeping unemployment low, while providing relatively high social protection. By contrast, the functioning of the Dutch labour market is less clear-cut. While few restrictions are placed on the use of temporary work, employment protection provisions for permanent workers are rather strict and likely impinge on transitions to employment. This may have been translated into – and possibly, partly counterbalanced by – overly high expenditures on active programmes for the unemployed.

9. Provided that this reform does not change the sensitivity of either wage claims or labour demand to market conditions in such a way to thoroughly counter this effect.

10. That is, simulations consider reductions by 6.7, 5.6 and 12.6 percentage points for the tax wedge, the average gross replacement rate and union density, respectively, as well as by 3.3 standard deviations for product market regulation. Such reductions are fairly large from an historical perspective, in-so-far as they exceed in each case the average change observed in OECD countries over the past two decades.

11. For example, while reducing employment protection for permanent workers may potentially threaten job security of all incumbent employees, such a reform will only affect those workers that overly strict dismissal provisions maintain in unproductive jobs. However, the frontier between productive and unproductive jobs is rather unclear and uncertainty, about which jobs will be destroyed, may lead to most incumbent employees opposing the reform.

12. Moreover, these special interest groups have been successful in gathering support from consumers by arguing that regulation is essential for securing quality, safety, security and equity of supply. Price subsidisation has also tended to rally some consumer groups behind existing regulatory arrangements (see also Hoj *et al.*, 2006).

13. As noted in Sub-section 3.1 of Chapter 3, changes to bargaining structures have been rather modest and were often prompted by the social partners themselves or occurred as a result of changes in behaviour adopted by individual agents, rather than being a result of government reform programmes (see also Brandt *et al.*, 2005).

ANNEX 6.A1

Principal Component Analysis of Policy Packages and Employment Performance

Principal Component Analysis (PCA) is part of a family of statistical techniques (factor analysis), primarily developed for analysing relationships among a number of measurable entities. It aims at reducing a set of observable variables in terms of a small number of latent factors. The underlying assumption is that there exists a number of unobserved latent variables or "factors" that account for most of the correlations among observable variables.

To take a simple example, the relationship between two variables can be analysed by fitting a regression line into a scatter-plot. This line represents the "best" summary of the linear relationship between the variables. It can be interpreted as a latent factor that captures most of the "essence" of the two variables in that the total variance is maximal on the regression line. In a sense, the two variables are "reduced" to one factor (the latter being a linear combination of the two variables). This example illustrates the basic idea of PCA. When extending this two-variable case to multiple variables, the computations become more involved, but the basic principle of expressing two or more variables by a single factor remains the same (see Box 6.A1.1).

Figure 6.A1.1 gives a synthetic picture of heterogeneity in policy settings and performance of labour markets, as observed at the beginning of the 2000s within the OECD area. The results are derived from a Principal Components Analysis and help to identify existing combinations of policy settings (Panel A) and to highlight similarities and differences across countries (Panel B). The analysis is based on the same set of policy indicators used by Bassanini and Duval (2006) for their base-case estimates.* In addition, it includes two indicators of labour market outcomes: the aggregate unemployment rate (UR) and the employment rate (EPR).

As explained in Box 6.A1.1, the first principal component is the linear combination of all variables (*i.e.* policies and outcomes indicators) which explains the highest proportion of the total variance of initial data. In this particular case, the first principal component accounts for 39.3% of the variance (see Table 6.A1.1). The second principal component is the linear combination of all variables that explains the highest proportion of the variance

* More precisely, this includes: active labour market programmes (ALMP expenditure per unemployed persons as a percentage of GDP per capita), union co-ordination (COOR), union coverage (COV), employment protection legislation (EPL), product market regulation (PMR), tax wedge (TW) and unemployment benefits (UB average gross replacement rate over a five-year period). These variables were available for 24 OECD countries and data were first standardised since the variances and/or measurement units differ much between variables.

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Box 6.A1.1. **Principal component analysis: methodological issue**

Let us consider a standardised dataset of n observations and p variables, represented by a (n, p) matrix X.[1] In the space defined by the p variables, the corresponding scatter-plot cannot be visualised, but it is still possible to find a line that comes as close to the n observation-points as possible and thus captures most of the variability in the data. Let u_1 denote the unit vector $(p, 1)$ associated with this line. The co-ordinates of the n observation-points on the regression line thus correspond to the n components of the vector Xu_1. According to the "least squares criterion", the best fitting line through the data minimises the residual variability in the data, or equivalently, maximises the explained variance. Therefore, u_1 is such as $(Xu_1)'Xu_1 = u_1'X'Xu_1$ is maximal and $u_1'u_1 = 1$. The (p, p) matrix $X'X$ is the covariance matrix of the p variables. It can be shown that u_1 is the eigenvector associated with the largest eigenvalue e_1 of this matrix.[2] The so-called first principal component has the same direction as this eigenvector and the explained variance is maximal on this component. However, there remains some variability around this line and the second principal component is defined to maximize this remaining variability,[3] and so on. More precisely, the eigenvector associated with the second largest eigenvalue determines the direction of the second principal component, and so on.

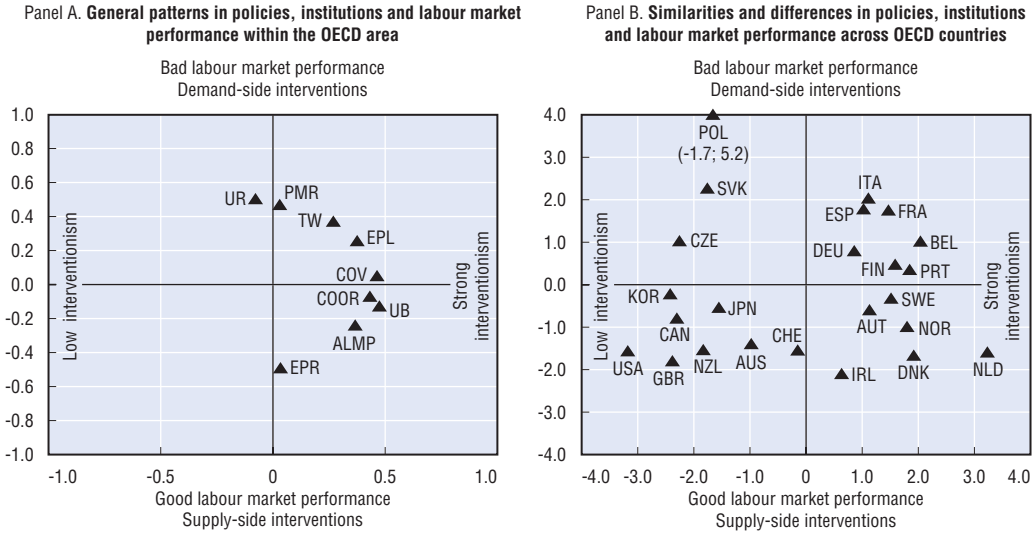
By construction, consecutive factors or components, denoted by $\psi_\alpha = Xu_\alpha$, are independent of each other – *i.e.* they are uncorrelated or orthogonal to each other – and satisfy the following relations: $\Sigma_{i=1\ldots n}\, \psi_{\alpha i} = 0$ and $\psi_\alpha'\, \psi_\alpha = e_\alpha$. Hence, the total variance on the principal component ψ_α equals e_α (the total variance in the data being equal to $\Sigma_\alpha e_\alpha$). Finally, the co-ordinate of an observation-point i on the so-called "principal axis" α is given by $\psi_{\alpha i} = \Sigma_{j=1\ldots p}\, u_{\alpha j} x_{ij}$ and illustrates the extent to which the corresponding observation contributes to the variance associated with that axis.

Considering now the scatter-plot associated with the p variable-points expressed in the space defined by the n observations, the same principle can be applied. The best fitting line trough the data has the same direction as the $(n, 1)$ vector denoted by v_1 and such as $(X'v_1)'X'v_1 = v_1'XX'v_1$, where $v_1'v_1 = 1$. Hence, v_1 is the eigenvector associated with the largest eigenvalue of the (n, n) matrix XX', and so on. It can be shown that the eigenvalues of the matrixes $X'X$ and $X'X$ are the same and that $v_\alpha = e_\alpha^{-1/2} X u_\alpha = e_\alpha^{-1/2} \psi_\alpha$. The co-ordinates of the p variable-points on the "principal axis" α correspond to the p components of the vector $X'v_\alpha = e_\alpha^{-1/2} X'\psi_\alpha$ and are given by: $\varphi_{\alpha j} = \Sigma_{i=1\ldots n}\, e_\alpha^{-1/2}\, \psi_{\alpha i}\, x_{ij}$. Therefore, each variable co-ordinate on a given principal axis equals the correlation coefficient between that variable and the corresponding principal component – these correlations are also called factor loadings. In turn, the interpretation of a principal component is closely related to those observable variables most contributing to it, *i.e.* most correlated with it or equivalently, with high factor loading.

1. When the variances and/or measurement units differ much between variables, data first have to be standardised (by subtracting mean and dividing by the standard error). Then, performing a PCA on a standardised data matrix has the same effect as performing the analysis on the correlation matrix since the covariance matrix from standardised data is equal to the correlation matrix of these data
2. Any square matrix A of rank n, admits n eigenvalues (ei) and n eigenvectors (ui) defined by: $Aui = eiui$, $ui'ui = 1$ and $ui'uj = 0$.
3. The corresponding $(p, 1)$ vector, denoted by $u2$, is such as $(Xu2)'Xu2 = u2'X'Xu2$ is maximal with $u2'u2 = 1$ and $u2'u1 = 0$.

which is not explained by the first principal component. It accounts for 34.1% of the total variance. Therefore, taken together, these two components capture most of the variability in the data (the two principal components together account for 73.4% of the total variance).

Figure 6.A1.1. **A synthetic picture of heterogeneity in the policy settings and performance of labour markets**[a, b]



a) The horizontal axis accounts for 39.3% of total variance of the data. The vertical axis accounts for 34.1% of total variance. Overall, these two Principal Components account for 73.4% of total variance.

b) ALMP: active labour market programmes; COOR: union co-ordination; COV: union coverage; EPL: employment protection legislation; EPR: employment rate; PMR: product market regulation; TW: tax wedge; UB: unemployment benefits; UR: unemployment rate.

Source: OECD calculations using data from Bassanini and Duval (2006).

Statlink: *http://dx.doi.org/10.1787/323044064232*

Table 6.A1.1. **Explained variance**

Eigenvalues of the covariance matrix

	Eigenvalues: variance on the extracted principal components	Eigenvalues expressed as a percentage of total variance	Cumulative variance extracted
Principal component:			
First	3.54	39.3	39.3
Second	3.07	34.1	73.4
Third	0.58	6.4	79.9
Fourth	0.54	6.0	85.8
Fifth	0.47	5.3	91.1
Sixth	0.34	3.8	94.9
Seventh	0.22	2.5	97.4
Eighth	0.13	1.4	98.7
Ninth	0.11	1.3	100.0

Source: See Box 6.A1.1.

Statlink: *http://dx.doi.org/10.1787/246275145081*

The results, as shown in Panel A, suggest a straightforward interpretation of the two principal components:

- The horizontal axis in Panel A reports correlation coefficients between, on the one hand, policy and outcome variables, and the first principal component on the other. All policy variables (with the exception of PMR) are positively correlated with the first principal component. By contrast, there is no correlation between the two outcomes variables (EPR and UR) and the first principal component. This result is remarkable and suggests that the first principal component can be interpreted as an aggregate indicator of the degree of interventionism of labour market policies – with interventionism increasing from left

to right along the horizontal axis. The weakly negative correlation between PMR and the first principal component suggests that there is no simple cross-country association between PMR and the labour market institutions and policies included in this analysis.

- The vertical axis in Panel A reports the correlation coefficients between policy and outcome variables on the one hand, and the second principal component on the other. Interestingly, the correlation coefficient between the unemployment rate and the second principal component is strongly positive (and it is strongly negative in the case of the employment rate). This suggests that the second principal component provides an indicator of labour market performance. All policy variables range along the second axis between bipolar values of the coefficients for the two outcome variables. ALMP and UB – which predominantly act on the supply side of the labour market – turn out to be associated with good performance. By contrast, PMR, EPL and TW – policy planks acting mainly on the demand side – tend to be associated with bad performance.

This analysis suggests that: *i)* favourable employment outcomes can be associated with different degrees of policy interventionism; and *ii)* the mix between demand- and supply-side policies matters. This finding is consistent with econometric estimates discussed in Sub-section 2.2 of this chapter coming from Bassanini and Duval (2006).

Finally, Panel B locates countries within the space defined by both principal components. It suggests that countries can be grouped into four categories – based on: *i)* countries' degree of policy interventionism (as measured along the first principal component, *i.e.* the horizontal axis); and *ii)* employment performance as well as the mix between demand- and supply-side policies (as measured along the second principal component, *i.e.* the vertical axis). For each category, the higher the co-ordinates of a country on both axes, the more representative is this country of the corresponding regime of labour market functioning.

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Chapter 7

Reassessing the Role of Policies and Institutions for Labour Market Performance: A Quantitative Analysis

Did countries that undertook structural reforms fare better than the others in terms of employment and unemployment? How much of the evolution of employment and unemployment in the recent years can be explained by institutional and policy changes? Changes in policies and institutions appear to explain almost two-thirds of non-cyclical unemployment changes over the past two decades. Reforms in the tax-benefit systems and liberalisation of product market regulations unambiguously improve labour market performance. Reforms in these areas appear to be mutually reinforcing, so that the benefit from any particular policy reform tends to be greater the more employment-friendly the overall policy and institutional framework. Likewise, spending on active labour market programmes can reduce work disincentive effects brought about by generous unemployment benefits. Macroeconomic conditions also matter for unemployment performance, but their impact is shaped by labour market policies and institutions.

Introduction and main findings

There is a rich literature on the labour market effects of policies and institutions. While the main policy conclusions from these studies have generally been consistent with the main thrust of the 1994 OECD Jobs Strategy, some of the policy recommendations have been challenged (see, in particular, Chapter 3). The purpose of this chapter is to report on new OECD empirical analysis of the policy drivers behind labour market performance, taking into account recent advances in both theory and empirical methodology. The chapter provides the key background empirical support for the evaluation and reformulation of policy recommendations made in the previous chapters as well as in OECD (2006b).[1]

More specifically, the chapter presents macroeconometric estimates of the impact of structural policies and institutions on employment and unemployment. To this end, heavy reliance is made on cross-country/time-series econometric techniques. Although the main focus of the paper is on labour market policies and institutions, issues that have emerged more recently in the literature are also covered, including the role of product market regulation, interactions among structural policies, and the effects of policies and institutions on economic resilience to macroeconomic shocks.

This chapter is divided into two sections. Section 1 looks at the determinants of structural unemployment in OECD countries by: *i)* analysing the direct impact of policies and institutions on unemployment and exploring the extent to which *interactions* across policies and institutions matter; *ii)* developing specific evaluations of the role of additional institutions, which for various reasons needed an ad-hoc econometric treatment;[2] and *iii)* examining how policies and institutions contribute to shape unemployment patterns not only directly but also indirectly via their interaction with macroeconomic shocks. Given that sound labour market performance ultimately hinges on high employment prospects for all, rather than on low unemployment *per se*, Section 2 focuses on policy and institutional drivers of employment rates. A specific analysis of employment rates of youth, women and older workers is presented.

The main findings are as follows:

- On average, changes in policies and institutions appear to explain almost two-thirds of non-cyclical unemployment changes over the past two decades. A consistent finding is that generous unemployment benefits, high tax wedges and stringent anti-competitive product market regulation increase aggregate unemployment. By contrast, highly centralised and/or coordinated wage bargaining systems reduce it. Likewise, spending on certain active labour market programmes, such as labour market training, is associated with lower unemployment. Extensive sensitivity analysis shows that these findings are robust across specifications, datasets and econometric methods.
- Policies and institutions affect employment not only via their impact on aggregate unemployment but also through their effects on labour market participation, particularly for those groups "at the margin" of the labour market. High unemployment

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benefits and high tax wedges are found to be associated with lower employment prospects for all groups. There is also evidence that group-specific policy determinants matter, such as targeted fiscal incentives. Yet, some caution is necessary when interpreting these latter findings, insofar as the empirical analysis of employment rates is not always as robust as that of unemployment.

- The precise impact of a given policy reform appears to vary depending on the institutional context, tending to be greater the more employment-friendly the overall policy and institutional framework. This suggests that structural reforms are complementary. There are exceptions to this general pattern, however: the adverse impact of generous unemployment benefits on unemployment appears to be mitigated by high public spending on active labour market programmes.
- In line with a number of previous studies, no significant impact of employment protection legislation on aggregate unemployment is found. However, effects appear to vary across labour market groups. Stringent employment protection legislation seems to depress youth employment, while it may benefit older workers.
- Finally, while policies and institutions appear to play a major role in shaping employment patterns, macroeconomic conditions also matter. Lower productivity growth, deteriorations in the terms of trade and increases in long-term real interest rates are all found to increase aggregate unemployment. And the size of the impact of these shocks is shaped by existing policies and institutions.

1. The determinants of structural unemployment

Economic theory and previous empirical studies have identified a number of policy and institutional determinants of unemployment (see Chapters 3, 4 and 6 for comprehensive surveys of the literature). These include *inter alia* unemployment benefits, taxes, trade union bargaining power and the structure of collective bargaining, employment protection legislation (EPL), anti-competitive product market regulation (PMR), active labour market programmes (ALMPs), minimum wages and housing policies.

Overall, there is fairly robust evidence that the level and duration of unemployment benefits have a detrimental impact on unemployment (Scarpetta, 1996; Nickell, 1998; Elmeskov *et al.*, 1998; Nunziata, 2002). Likewise, a number of empirical studies have found that high labour taxes tend to increase unemployment rates (Belot and van Ours, 2004; Nickell, 1997), although other studies are less conclusive (Scarpetta, 1996; Nunziata, 2002; Di Tella and MacCulloch, 2005). A few macroeconometric studies also identify a favourable effect of spending on ALMPs and an adverse impact of home ownership on aggregate unemployment (*e.g.* Scarpetta, 1996; Nickell, 1997, 1998; Green and Hendershott, 2001; Boone and van Ours, 2004; Nickell *et al.*, 2005).

There is less consensus in the literature regarding the unemployment effects of EPL, trade union bargaining power and the structure of collective bargaining. And there is only scant macroeconometric evidence on the employment effects of product market regulation. Among the few studies on this issue, Nicoletti *et al.* (2001) and Nicoletti and Scarpetta (2005) both find that product market reforms improve labour market performance.

This section provides a new empirical assessment of the impact of these policies on unemployment. Compared with previous studies, it uses a comprehensive database and takes advantage of the most up-to-date macroeconometric techniques. Box 7.1 briefly presents the methodology.

Box 7.1. **The econometric model**

Most of the econometric analysis reported in this section is based on a reduced-form static unemployment equation, which is consistent with a variety of theoretical models of labour market equilibrium, including standard job-search (Pissarides, 2000) and wage-setting/price-setting models (*e.g.* Layard *et al.*, 1991; Nickell and Layard, 1999). In the case of unemployment, the reduced form is:

$$U_{it} = \sum_j \beta_j X_{it}^j + \sum_l \varphi_l Z_{it}^l + \alpha_i + \lambda_t + \varepsilon_{it}$$

where i and t are country and time suffices, U is the unemployment rate, X are OECD measures of the policies and institutions considered as explanatory variables, Z are other control variables capturing, notably, cyclical fluctuations, α and λ are country and time fixed effects, and ε is the standard error term. The linear model presented above is, in several occasions, augmented by interactions among institutions or between institutions and shocks. In all estimated models, except in the sensitivity analysis, observations for Finland, Germany and Sweden in 1990 and 1991 are removed from the sample, and different country fixed effects are used for each of these three countries over the two sub-periods "before 1990" and "after 1991". This reflects the view that observable institutions and macroeconomic shocks cannot fully capture highly country-specific factors – including *inter alia*, the collapse of the Soviet Union for Finland, the German re-unification and the Swedish banking crisis – which were behind the upward shift in unemployment over this two-year period in these three countries. Still, as shown in Bassanini and Duval (2006), the main conclusions from the analysis are not dependent on whether these observations are excluded or not from the sample.

Models of determinants of the employment rate used in this chapter are similar but more complex. Employment rates are estimated as a function of factors of labour force participation as well as determinants of unemployment. Moreover, insofar as the former typically vary across population groups, the analysis is undertaken simultaneously for prime-age men, prime-age women, older workers and youth, allowing group-specific error terms to be contemporaneously correlated.

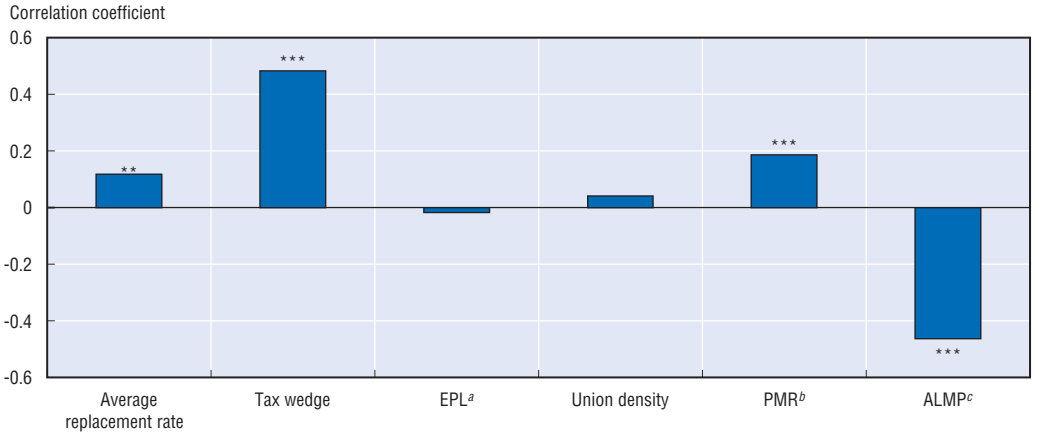
1.1. Policies, institutions and unemployment: baseline results

Several institutional variables appear to be correlated with the unemployment rate

Figure 7.1 presents simple correlations[3] between unemployment and the main policies and institutions considered in this chapter, namely: a summary measure of unemployment benefit generosity (an average of replacement rates across various earnings levels, family situations and durations of unemployment); the tax-wedge between labour cost and take-home pay (for a single-earner couple with two children, at average earnings levels); the degree of stringency of EPL; the average degree of stringency of PMR across seven non-manufacturing industries; union membership rates; and an indicator of the "spending" effort on ALMPs (total expenditures per unemployed worker as a percentage of GDP per capita). Unemployment benefits, the tax wedge, PMR and ALMPs appear to be significantly correlated with unemployment, while correlations are not significant in the case of EPL and union density.[4]

Figure 7.1. **Correlations between the unemployment rate and selected institutions and policies**

Variables purged from both country and time fixed effects, 1982-2003



ALMP: Active labour market programmes. EPL: Employment protection legislation. PMR: Product market regulation.
***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.
a) Index of stringency of the employment protection legislation.
b) Index of stringency of anti-competitive product market regulation.
c) Average ALMP expenditures per unemployed person as a percentage of GDP per capita.

Source: OECD estimates.

Statlink: *http://dx.doi.org/10.1787/837846658514*

In the average OECD country, unemployment benefits negatively affect unemployment…

Multivariate analysis yields similar results (see Table 7.A1.1). First of all, average benefit replacement rates appear to significantly raise unemployment, for the average OECD country.[5] Moreover, the adverse impact of the summary measure of unemployment benefits, which is consistent with most of previous literature (see Chapter 3), reflects the combined effect of the replacement rate during the first year of unemployment, the duration of benefit receipt and the interaction between these variables (see Table 7.A1.1, Column 2).

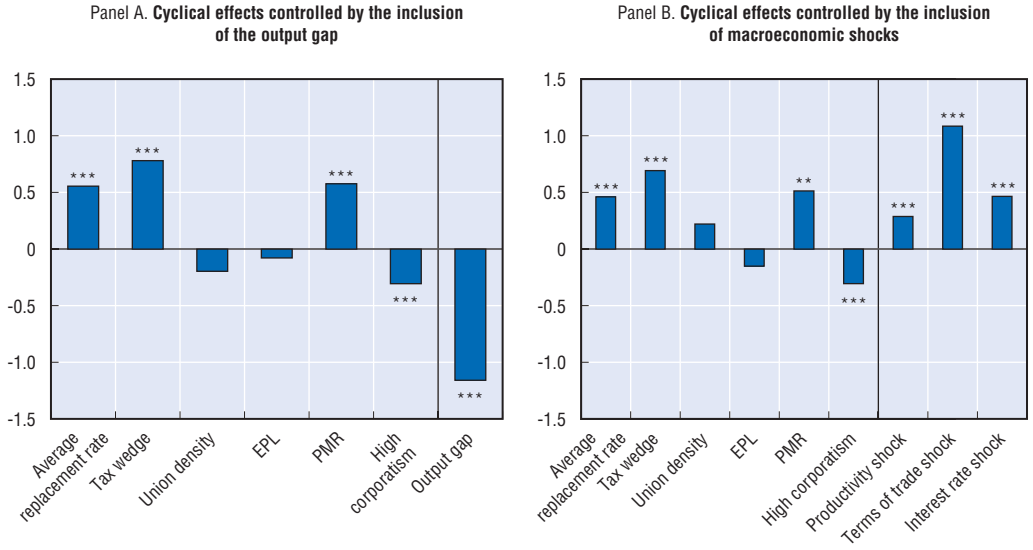
… as do labour and consumption taxes as well as weak product market competition

The tax wedge is also robustly found to raise unemployment. Both labour taxes and consumption taxes – which are the two main alternative drivers of the tax wedge – have a strong and similar effect (see Table 7.A1.1, Column 5). Likewise, economies with limited product market competition tend to be associated with high unemployment – the price for their "quiet life".[6]

What is the relative importance of each of these policies in determining unemployment? In order to answer this question, it is necessary to quantify each policy and to compare their impact on the basis of a common scale. The approach taken in this chapter is to consider "historically typical" reforms, corresponding to one standard deviation of each policy variable, where deviations have been netted out of cross-sectional variation.[7] On this basis, it can be concluded that a "historically typical" reform of the average benefits replacement rate (that is 4.7 percentage points), the tax wedge (2.8 percentage points) and PMR (1 unit) would result in a fall of the unemployment rate of about 0.5, 0.7 and 0.5 percentage point, respectively, for the average OECD country (Figure 7.2).

Figure 7.2. **Unemployment benefits, tax wedges, product market competition and the structure of collective bargaining significantly affect unemployment**

Percentage-point impact of one standard deviation increases in policies or macroeconomic shocks,[a] baseline model, 1982-2003



EPL: Employment protection legislation. PMR: Product market regulation.

***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.

a) For each policy or adverse macroeconomic shock, the figure shows the estimated effect on the unemployment rate of a one standard deviation from the sample average for a country where all other variables are equal to the sample average. Standard deviations are computed using time-series variation only (that is, netting out cross-sectional variation). Magnitudes of policy and output gap increases as well as adverse macroeconomic shocks are set as follows: average replacement rate, 4.7 percentage points; tax wedge, 2.8 percentage points; union density, 6.0 percentage points; EPL, 0.3 unit of the synthetic indicator; PMR, 1.0 unit of the synthetic indicator; high corporatism, 1/5 of the value of the dummy variable; output gap, 2.4 percentage points; total factor productivity negative deviation from its trend, obtained through an Hodrick-Prescott filter, 2.2 percentage points; deterioration in the terms of trade, 5.6 percentage points; and increase in the long-run interest rate, 2.1 percentage points. In the case of policy variables, these changes can be considered to correspond to the size of "historically typical" policy reforms. For example, the figure shows that a "historically typical" reform of the unemployment insurance would reduce the unemployment rate by about 0.5 percentage point in the average OECD country.

Source: OECD estimates (see Table 7.A1.1, Columns 1 and 6).

Statlink: *http://dx.doi.org/10.1787/376346080628*

The level of coordination of the wage-bargaining matter…

The degree of corporatism – captured by a dummy variable, which takes the value of one when wage bargaining is highly centralised or co-ordinated and zero otherwise[8] – is found to significantly reduce unemployment, lending some support to the view that, in centralised/co-ordinated bargaining systems, unions and employers are able to internalise the adverse employment consequences of excessive wage claims.

… but the effects of trade-unions and employment protection legislation are statistically insignificant

By contrast, the impact of EPL and union density on unemployment are statistically insignificant. These findings are not inconsistent with recent theoretical developments that predict that: *i)* lay-off regulations tend to affect more the distribution of unemployment rather than its level; and *ii)* the bargaining power of unions has more to do with the way rents are distributed rather than the level of labour demand (see Chapter 3). Yet, the latter result might reflect the fact that union density poorly captures the actual

bargaining power of workers. Indeed, in some countries, the coverage of collective agreements largely exceeds the number of trade union members – this reflects, *inter alia*, legal procedures and practices to extend collective contracts to unaffiliated workers, including those employed in non-signatory firms (see OECD, 2004a). The possible effects of such practices could not be assessed in this analysis.

Macroeconomic shocks play an important role

The estimated coefficient of the output gap is also highly significant (Figure 7.2, Panel A), suggesting that cyclical unemployment patterns can be explained by aggregate demand and supply developments – and not only by labour- and product-market policy settings. In order to shed further light on this issue, the baseline equation is re-estimated by substituting a number of observable macroeconomic variables, or "shocks", for the output gap (Figure 7.2, Panel B). In line with recent empirical literature, three types of adverse "shocks" are considered for analysis: lower productivity growth; a deterioration in the terms of trade (resulting, for instance, from an oil price shock); and an increase in long-term real interest rates.[9] It is estimated that an adverse shock of "historically typical" size would increase the unemployment rate by about 0.3, 1.1 and 0.5 percentage points, respectively. These findings confirm that macroeconomic shocks can well explain fluctuations of unemployment over the business cycle, as well as the evolution of structural unemployment if they persist over time (such as in the case of a permanent deterioration of the terms of trade or a permanent increase of the interest rate; see Blanchard and Katz, 1999; Blanchard, 1998, 2000; Nickell *et al.*, 2005).

The evolution of unemployment in the past two decades is well explained by policy reforms

Overall, empirical results based on the baseline regression model show that policies and output gap explain a significant share of past unemployment trends for most countries (Figure 7.3, Panel A). This is true even when considering the impact of policies and institutions alone, *i.e.* excluding the effects of the output gap (Figure 7.3, Panel B).[10] Changes in policies and institutions are estimated to explain 47% of the cross-country variance of observed unemployment changes between 1982 and 2003. This figure rises to 74% when changes in the output gap are also taken into account.[11]

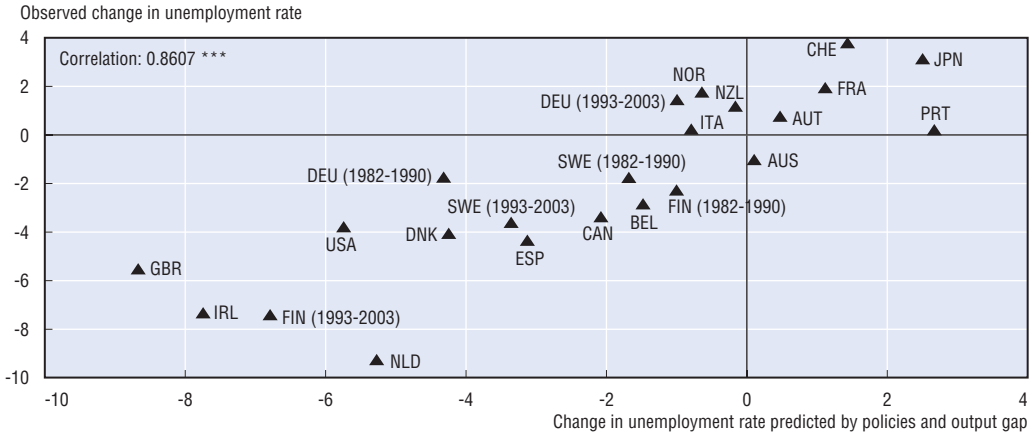
As shown in Figure 7.3, many of the countries that succeeded in lowering unemployment undertook important reforms in their product markets and tax-benefit systems (*e.g.* Denmark, Ireland and the United Kingdom). Policy changes were less employment-friendly in those countries where unemployment stagnated or rose (*e.g.* France, Japan and Switzerland). For certain countries (*e.g.* Canada, Finland, Spain and Sweden), the variation in labour market performance between 1982 and 2003 is essentially explained by the output gap.[12] Finally, there are some countries for which past unemployment trends are harder to explain on the basis of this simple regression model. In particular, the gradual pick up in unemployment in Germany after the re-unification is not properly explained by either policy or control variables included in the analysis. And the drop in unemployment in the Netherlands since the early 1980s has been larger than predicted by the model.

Policies appear to interact with the overall institutional framework

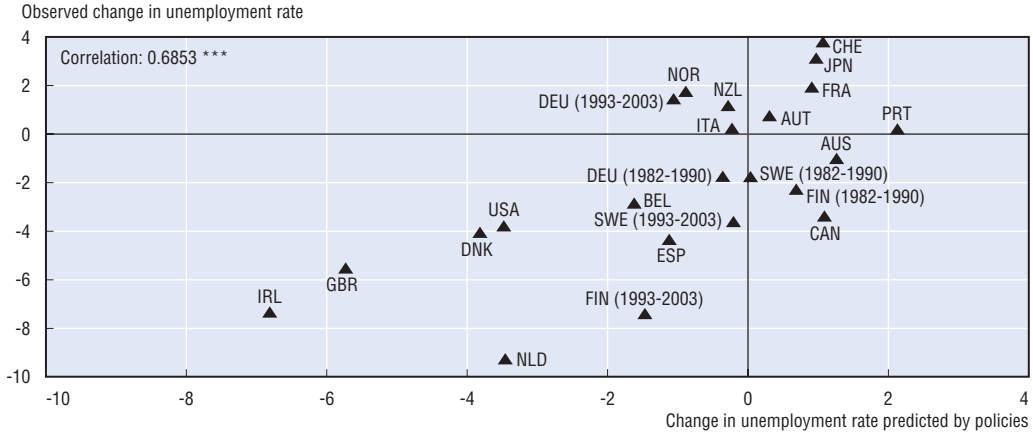
It has been argued that comprehensive reform packages are likely to be more effective in reducing unemployment than "piece-meal" labour market reforms (Belot and van Ours, 2004; Coe and Snower, 1997; Elmeskov *et al.*, 1998; Fitoussi *et al.*, 1998; Orszag and Snower, 1998).

Figure 7.3. **The evolution of unemployment is well explained by policy reforms**

Panel A. **Change in unemployment explained by policy reforms and the output gap, 1982-2003**



Panel B. **Change in unemployment explained by policy reforms only, 1982-2003**



Source: OECD estimates (see Table 7.A1.1, Column 1).

Statlink: *http://dx.doi.org/10.1787/712832215813*

This would arise, in particular, in the presence of reform complementarity or, more generally, when policy changes interact with each other. Recent descriptive analysis, however, does not provide straightforward evidence in favour of comprehensive reform packages. While successful reformers like Denmark and the Netherlands have applied comprehensive reform programmes, other successful countries like Ireland and the United Kingdom have adopted reforms more narrowly targeted on specific fields (Brandt *et al.*, 2005).

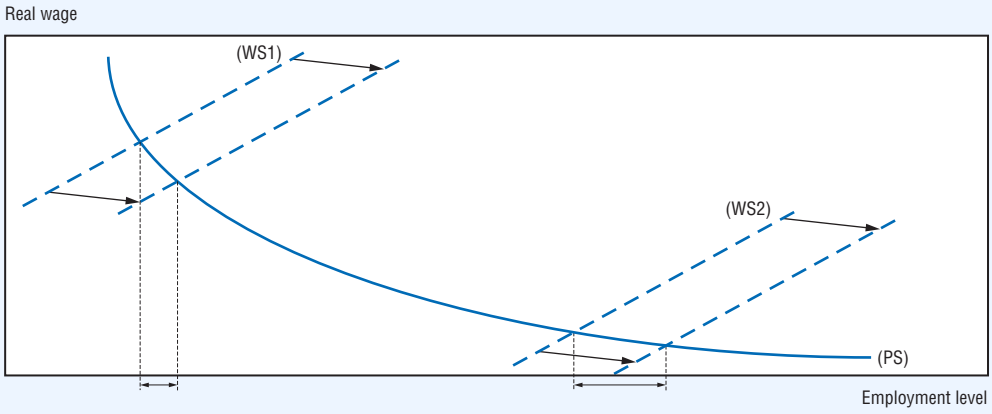
To shed further light on this issue, the baseline model is extended in various ways to allow for interactions among policies and institutions (the way theory has treated policy interactions in the context of unemployment analysis is briefly discussed in Box 7.2). Two results emerge from this analysis. First, no firm conclusions can be drawn regarding the presence of specific interactions between the policies and institutions included in the baseline specification. More precisely: *i)* certain interactions – *e.g.* between the tax wedge (or EPL) and wage bargaining regimes – appear to reflect particular country experiences and cannot be generalised; and *ii)* apparently strong interactions become statistically

Box 7.2. **Interactions among policies and institutions in the standard wage-setting/price-setting model**

In a standard wage-setting/price-setting model (*e.g.* Layard *et al.*, 1991; Nickell and Layard, 1999), it can be shown that institutions interact with each other in their impact on aggregate employment and unemployment. Such interactions reflect two groups of mechanisms, namely specific and systemic policy interactions (Belot and van Ours, 2004):

- First, policies and institutions that affect the *elasticity* of wage claims to employment (*e.g.* unemployment benefits, union bargaining power, product market regulation) and/or the elasticity of labour demand to the bargained wage (*e.g.* product market regulation, EPL, the tax wedge) interact with policies and institutions that shift the *level* of wage claims (*e.g.* unemployment benefits) and/or labour demand (*e.g.* product market regulation). More formally, any factor that affects the slope of the wage-setting (WS) and/or price-setting (PS) curves interacts with any factor that affects the level (*i.e.* the vertical position) of these curves. This implies that virtually any set of policies and institutions can affect employment outcomes in an interactive manner.
- Second, the marginal impact on labour demand of a given change in real wages is likely to be larger when employment is already high than when it is low. More formally, the labour demand or PS curve is likely to be convex in the real wage/employment space. As a result, labour market reform that shifts the WS curve downwards (*e.g.* a cut in unemployment benefits) will be greater the higher the initial level of employment, *i.e.* the more employment-friendly the initial institutional framework (see Figure below). This observation has led a number of researchers to argue that structural reforms are complementary, in the sense that the combined effect of several employment-friendly reforms is greater than the sum of the effects of each of them undertaken in isolation (Coe and Snower, 1997; Fitoussi *et al.*, 1998; Orszag and Snower, 1998).

The higher the initial employment level, the greater the impact of a labour market reform



insignificant or even change sign when possible correlations between institutions and other omitted interactions are controlled for through instrumental variable techniques.[13] These results must, however, be seen as inconclusive insofar as they might reflect the lack of efficiency of the estimation method.

Second, there is evidence of the presence of "systemic" interactions – which arise when any reform that increases employment is complementary with the other employment-enhancing reforms taken as a whole (see Box 7.2, second bullet). In fact, additional econometric estimates, undertaken under more restrictive theoretical assumptions,[14] suggest that reforms of the tax wedge, unemployment benefits, PMR and union density are all complementary with one another. Consider, for example, reforms in these areas that would each reduce unemployment by 1 percentage point if implemented separately. All possible combinations of two such reforms, while keeping an unchanged policy stance as regards to the other two, are estimated to yield a total reduction of unemployment between 2.25 and 2.37 percentage points for the "average" OECD country. In other words, policy complementarities are estimated to amplify the unemployment effects of separate reforms by only 12% to 19%. Yet, if reforms in all four areas were undertaken simultaneously, the additional reduction in unemployment would surge to 46% of the impact of separate reforms.[15]

1.2. Additional determinants of unemployment patterns: minimum wages, active labour market programmes, and housing policy

The analysis presented above follows the standard approach of excluding from the baseline specification those policies (such as minimum wage, active labour market programmes and housing policy) that require specific econometric treatments and are, therefore, usually not included in general macroeconomic studies of institutional determinants of unemployment.[16] This sub-section reports on econometric results obtained by case-by-case adaptation of the baseline model in order to encompass these additional institutional and policy variables.

Minimum wages have no clear impact on unemployment…

To study the impact of minimum wages on unemployment, the baseline model is augmented by including the ratio of gross statutory minimum wages to median wages, following the most frequent approach in the literature (see *e.g.* OECD, 1998; Elmeskov *et al.*, 1998). Consistent with previous OECD work using this approach, no significant direct impact of the level of the minimum wage on unemployment is identified.[17]

… but appear to shape the effect of the tax wedge

Additional estimates suggest, however, that a high tax wedge has more adverse effects on unemployment when the minimum wage is high. Indeed, the tax burden cannot be easily shifted onto wages when the minimum wage is binding, thereby magnifying the depressing effect of the tax wedge on the labour demand. The estimated impact of the minimum wage on the elasticity of unemployment to the tax wedge appears to be large: an increase in the ratio of minimum to median wages by 10 percentage points would increase the impact of the tax wedge on unemployment by about 50% in the "average" OECD country.

Only certain types of active labour market programmes are found to exert a direct impact on unemployment…

Aggregate ALMP expenditures per unemployed person (expressed as a percentage of GDP per capita to ensure cross-country comparability) do not appear to have a significant direct impact on unemployment, when the baseline model is augmented by this indicator and

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estimates are obtained by instrumental variable techniques.[18] When ALMP expenditures are disaggregated by category (that is, public employment services and administration; training programmes; youth measures; subsidized employment; and measures for the disabled), only training programmes appear to have a significant impact on unemployment.[19]

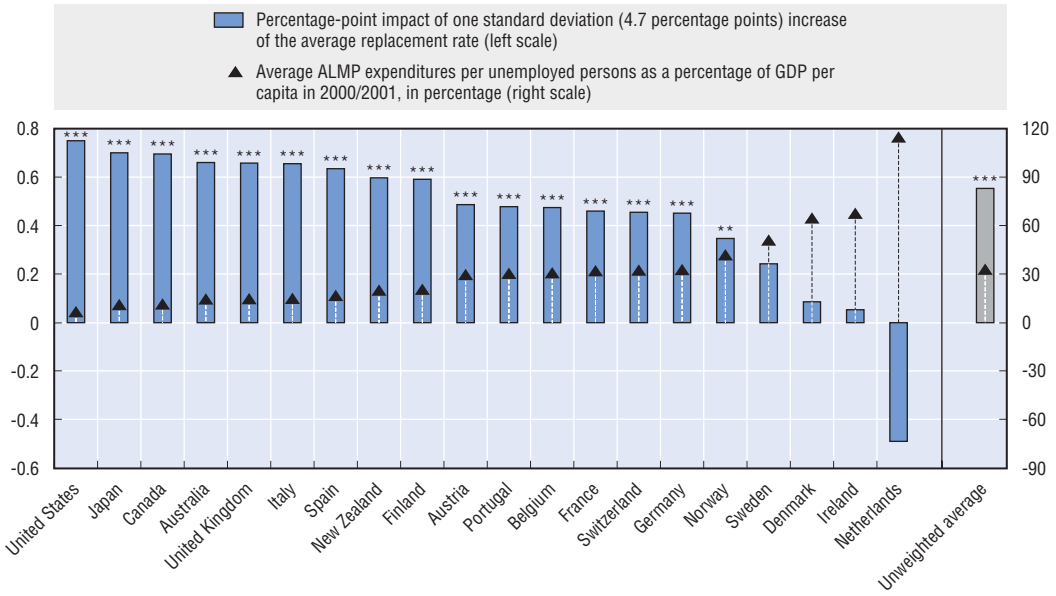
These findings seem in contrast with a number of micro-evaluation studies on the impact of ALMPs (see Chapter 3). One possible explanation is that most of these studies may fail to capture general equilibrium and long-run effects (see also OECD, 2005a). As a result, they tend to be overly optimistic as regards programmes involving large potential substitution effects (*e.g.* subsidised employment) as well as overly pessimistic on programmes that are likely to pay off only in the long-run (*e.g.* training programmes).

... but activation policies in general offset the disincentive effects of benefits

In the previous chapters it has been observed that careful integration of active and passive measures, combined with close monitoring of job search, can be effective in dampening disincentives effects brought about by generous unemployment benefits. This is confirmed by empirical analysis, which shows that the adverse impact of unemployment benefits is lower in countries that spend more on ALMPs. A rise in spending on ALMPs of the size corresponding to the "historically typical" reform,[20] reduces the adverse impact of unemployment benefits by about 20%. In fact, in countries with a strong emphasis on activation policies, like Denmark and the Netherlands, unemployment benefits have a statistically insignificant effect on unemployment (Figure 7.4).[21]

Figure 7.4. **Active labour market programmes can significantly modify the impact of unemployment benefits on the unemployment rate**

Impact of active labour market programmes (ALMPs) on the estimated effect of benefits on the unemployment rate, by country[a]



***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.

a) The figure shows the estimated effect of an increase in the average benefit replacement rate of 4.7 percentage points, for different levels of ALMP spending per unemployed as a share of GDP per capita (corresponding to spending levels in different OECD countries in 2000-2001), in a country with the OECD average level of all other policies and institutions. Standard deviations are computed using only time-series variation between 1982 and 2003 (that is, netting out cross-sectional variation).

Source: OECD estimates. Statlink: *http://dx.doi.org/10.1787/182228723764*

Home ownership is correlated with unemployment

There is growing interest in the possible links between housing policy, job mobility and unemployment. However, empirical analysis of this issue is difficult due to data limitations. Cross-country comparable data on transaction costs and housing policies are scattered, while home ownership data are available only for period-averages, therefore these variables cannot be included in the econometric specification in a simple way. Yet, it is possible to shed light on the relationship between home-ownership and unemployment by looking at its correlation with estimated country fixed effects obtained from the baseline model. This correlation turns out to be high and significant (0.62): more than one-third of the variance among fixed effects appears to be explained by the average rate of home ownership during the 1990s. This finding, though in line with most existing macroeconomic studies (*e.g.* Oswald, 1997; Cameron and Muellbauer, 1998; Green and Hendershott, 2001; Nickell *et al.*, 2005), must be interpreted with caution. Home-ownership might be endogenous insofar as societies with lower degrees of internal and external migration are likely to have higher rates of home-ownership and lower unemployment, with no causal link between them.

1.3. Interactions between institutions and shocks

Institutions and policies can amplify or reduce the initial impact of macroeconomic shocks…

As discussed in Chapter 6, institutions and policies can affect labour market performance not only directly but also indirectly, by shaping the size and persistence of macroeconomic shocks. In order to shed light on the quantitative importance of these effects, a dynamic version of the baseline model discussed in Box 7.1 has been estimated, allowing for interactions between shocks and institutions as regards both the initial unemployment impact of shocks and their persistence over time (see Box 7.3).

The main findings of this analysis are summarised in Figure 7.5. This shows that a "historically typical" cut of the average benefit replacement rate (4.7 percentage points) would dampen the unemployment effect of a shock by almost 10% in the average OECD country. Conversely, the tax wedge, high corporatism, ALMPs, EPL and PMR are all found to decrease the initial impact of shocks.[22] These effects appear to be consistent with the role of automatic stabiliser of the tax wedge, the wage-moderating impact of coordinated bargaining systems, the favourable impact of ALMPs on labour market frictions and the fact that regulations tend to slow down the reallocation of resources within the economy, thus minimising job destruction in the short-run.

… as well as their persistence over time,…

EPL and PMR, however, by reducing labour demand, tend to depress hiring in the long-run (see *e.g.* OECD, 2004a). Consistently, they appear to increase the persistence of shocks. Consider, for example, a country with a degree of stringency of PMR such that it could reach the OECD average level by making a product market reform of "historically typical" size (that is, one unit of the indicator). By implementing the reform, this country will reduce the half-life of an adverse shock – that is the time required to reduce the initial unemployment impact of a shock by 50% – from about eight to about six years.[23]

Box 7.3. **Disentangling amplification and persistence effects of macroeconomic shocks**

An adverse shock might not only raise current unemployment but, in addition, its effects might persist over time. In order to assess initial versus persistence effects of shocks, a dynamic version of the baseline model described in Box 7.1 is needed. The simplest dynamic version is the following:

$$\Delta U_{it} = -\phi U_{it-1} + \sum_l \varphi_l Z_{it}^l + \text{Other covariates} + \varepsilon_{it},$$

where, as before, *i* and *t* are country and time suffices, *U* is the rate of unemployment, *Z* are (by and large transitory) macroeconomic shocks, and ε is the standard error term. Other covariates include determinants of structural unemployment, possibly including institutions and country effects. ϕ is a non-negative coefficient that captures persistence mechanisms (the greater it is, the smaller the persistence), φ are coefficients that capture amplification mechanisms (the greater they are, the larger the initial unemployment impact of a transitory shock). Importantly, *institutions and policies are assumed to affect both types of coefficients*.

From a quantitative point of view, while the interpretation of φ is trivial (a 10% larger value of φ implies a 10% greater initial impact of a shock on unemployment), that of ϕ is somewhat more complex. The equation above is justified by a model in which, after a one-period transitory shock, unemployment goes back to its original long-run equilibrium level following an exponential time path:

$$U_{it} - U_{i0} = -(1 - e^{-\lambda t})(U_{i0} - U^*),$$

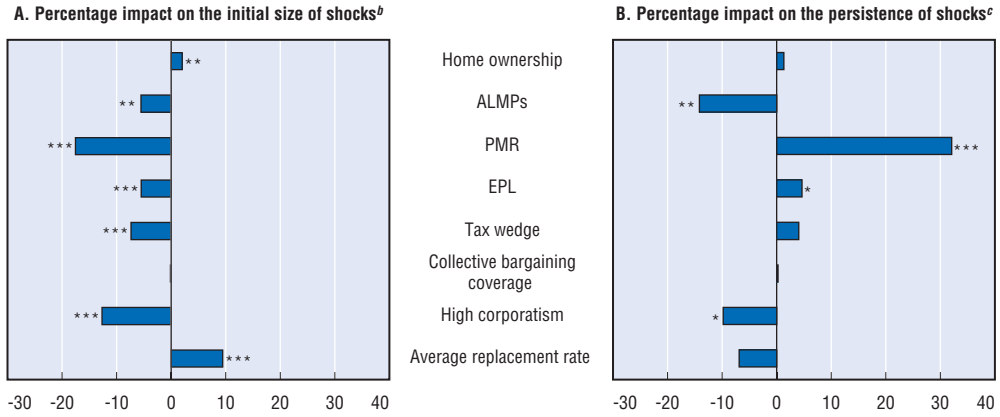
where U^* is the long-run equilibrium unemployment rate, λ is a parameter describing the speed of convergence to equilibrium unemployment and $U_{i0} - U^*$ is the initial unemployment impact of a macroeconomic shock occurring at time 0. Since the empirical model above is estimated on annual data, it follows that $\lambda = -\ln(1 - \phi)$. Persistence is typically measured in terms of half-life of a shock – that is the time required to reduce the initial unemployment impact of a shock by 50% – which is therefore equal to ln(2)/λ. Finally, if no discounting is assumed – *i.e.* in the absence of social preference for the current generation – the total cumulated impact, denoted *I*, of a shock on unemployment can be computed as:

$$I = \int_0^{+\infty} (U_{i0} - U^*) e^{-\lambda t} dt = \frac{U_{i0} - U^*}{\lambda}.$$

… affecting the unemployment cost of adverse shocks for a long period

What do these counteracting effects imply for the average unemployment rate in the aftermath of a shock? Subject to reasonable assumptions (see Box 7.3), it is possible to derive from the econometric estimates the effect of each policy and institution on the total cumulated impact of an adverse shock on the unemployment rate. For the average OECD country, the cumulated impact of an adverse shock, whose initial effect is to increase the unemployment rate by 1 percentage point, ranges between 8.4 and 9.6 percentage points, depending on the empirical specification. In countries that are above the OECD average in terms of unemployment benefits or PMR – but that could reach the average by undertaking a reform of "historically typical" size – the average unemployment cost of an adverse shock will be almost 10% greater if they do not undergo the reform.[24] By contrast, high level

Figure 7.5. **The unemployment effects of macroeconomic shocks are shaped by existing policies and institutions**[a]



ALMPs: Active labour market programmes. EPL: Employment protection legislation. PMR: Product market regulation. ***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.

a) For each policy, the figure reports the estimated percentage effect of a one standard positive deviation from the sample average on the unemployment impact of an adverse macroeconomic shock for a country where all other variables are equal to the sample average. Standard deviations are computed using time-series variation only (that is, netting out cross-sectional variation). Magnitudes of policy increases are set as follows: average replacement rate, 4.7 percentage points; tax wedge, 2.8 percentage points; EPL, 0.3 unit of the synthetic indicator; PMR, 1.0 unit of the synthetic indicator; high corporatism, 1/5 of the value of the dummy variable; collective bargaining coverage, 0.5 percentage point; ALMP spending per unemployed as a share of GDP per capita,10.8 percentage points; home-ownership (owner-occupied housing as a percentage of total occupied housing stock), 1.2 percentage points. These changes can be considered to correspond to the size of "historically typical" policy reforms. Estimates refer to the 1970-2003 period.

b) The interpretation of Panel A is as follows: in a country where all policies and institutions are set equal to the sample average except, say, PMR, which is greater by one unit, the initial impact of shocks is smaller by 18% than in the average country.

c) Persistence is measured as half-life, that is the time required to reduce the initial impact of a shock by 50%. For the average country this is between 5.8 and 6.6 years, depending on the specification. The interpretation of Panel B is as follows: in a country where all policies and institutions are set equal to the sample average except, say, PMR, which is greater by one unit, half-life of shocks is longer by 32% than in the average country.

Source: OECD estimates.

Statlink: *http://dx.doi.org/10.1787/824473075441*

of spending on ALMPs and centralised wage-bargaining tend to reduce average unemployment also by dampening the average effects of shocks in the long-run. Finally, reforms of tax wedges might have the drawback of amplifying the adverse impact of shocks to the extent that large tax cuts imply giving up a mechanism of macroeconomic stabilisation.

2. Group-specific employment rates

Good labour market performance depends not only on low rates of unemployment but also on high levels of employment. Previous chapters explain in more detail the key role of focusing on greater employment rates, and not just lower unemployment, especially in the context of population ageing. To some extent, labour market participation patterns reflect socio-cultural factors affecting the trade-off between work and alternative activities – including *inter alia* leisure, education or child rearing. However, current policy settings might result in sub-optimal participation rates, in particular for certain groups that are often "at the margin" of the labour market such as youth, women and older workers. Another related issue, which is not addressed here, is the impact of policy distortions on hours worked.

Table 7.1. **Institutions and policies change the cumulated unemployment cost of adverse macroeconomic shocks**

Percentage impact[a, b]

Average replacement rate	9.45
	[2.81]***
High corporatism	–21.23
	[3.27] ***
Collective bargaining coverage	0.13
	[0.28]
Tax wedge	–7.35
	[2.60] ***
EPL	–1.10
	[0.39]
PMR	8.90
	[0.72]
ALMPs	–18.94
	[2.89] ***
Home ownership	2.01
	[2.20] **

***, **, *, statistically significant at 1%, 5%, 10% levels, respectively; t-statistics in brackets.

ALMPs: Active labour market programmes. EPL: Employment protection legislation. PMR: Product market regulation.

a) For each policy, the table reports the estimated percentage effect of a one standard positive deviation from the sample average on the cumulated unemployment impact of an adverse macroeconomic shock for a country where all other variables are equal to the sample average. Standard deviations are computed using time-series variation only (that is, netting out cross-sectional variation). Magnitudes of policy increases are set as follows: average replacement rate, 4.7 percentage points; tax wedge, 2.8 percentage points; EPL, 0.3 unit of the synthetic indicator; PMR, 1.0 unit of the synthetic indicator; high corporatism, 1/5 of the value of the dummy variable; collective bargaining coverage, 0.5 percentage point; ALMP spending per unemployed as a share of GDP per capita, 10.8 percentage points; home-ownership (owner-occupied housing as a percentage of total occupied housing stock), 1.2 percentage points. Estimates refer to the 1970-2003 period.

b) Cumulated impacts of shocks are computed under the assumption of zero social discount rate. For the average country, the cumulated impact on the unemployment rate of a shock, whose initial impact on the unemployment rate is 1 percentage point, is between 8.4 and 9.6 percentage points, depending on the specification. The interpretation of the estimates is as follows: in a country where all policies and institutions are set equal to the sample average except, say, average benefit replacement rates, which is greater by 4.7 percentage points, the cumulated increase in unemployment induced by an adverse shock until it is thoroughly reabsorbed is 9.45% greater than in the average country.

Source: OECD estimates. Statlink: *http://dx.doi.org/10.1787/446406664705*

This section explores the policy and institutional determinants of employment rates. The empirical analysis proceeds by estimating pooled cross-country/time-series regressions, all of which incorporate within the same framework two types of variables: *i)* the determinants of unemployment studied in the baseline regression of the previous section, namely average unemployment benefit replacement rates, tax wedges, union density, EPL, PMR and coordinated wage-bargaining; and, *ii)* factors behind labour market participation decisions. Since the latter factors tend to vary across population groups, the analysis is undertaken separately for prime-age men and women, older workers and youth (see Box 7.1).

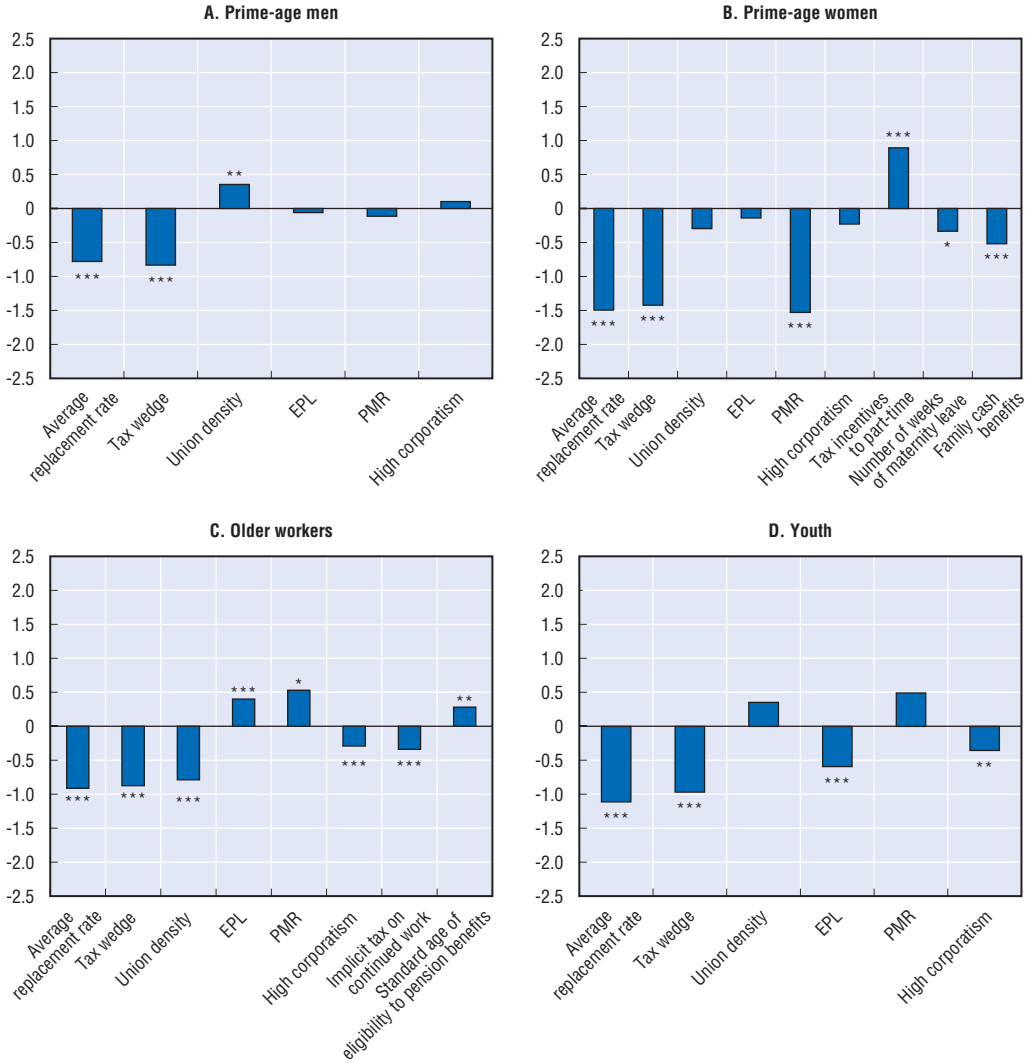
2.1. Prime-age men and women

High unemployment benefits and high tax wedges tend to reduce employment of both prime-age men and women…

Figure 7.6 shows that overly generous unemployment benefits and heavy tax wedges exert considerable downward pressure on employment rates of both prime-age men and women. In the average OECD country, "historically typical" cuts in either unemployment benefits or the tax wedge – by 4.7 percentage points for the average benefit replacement

Figure 7.6. **The impact of policies and institutions on employment rates vary across demographic groups**

Percentage-point impact of one standard deviation increases in policies,[a] baseline model, 1982-2003



EPL: Employment protection legislation. PMR: Product market regulation.

***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.

a) For each policy, the figure presents the estimated effect of a one standard deviation from the sample average for a country where all other variables are equal to the sample average. Standard deviations are computed using time-series variation only (that is, netting out cross-sectional variation). Magnitudes of policy and output gap increases are set as follows: average replacement rate, 4.7 percentage points; tax wedge, 2.8 percentage points; union density, 6.0 percentage points; EPL, 0.3 unit of the synthetic indicator; PMR, 1.0 unit of the synthetic indicator; high corporatism, 1/5 of the value of the dummy variable; output gap, 2.4 percentage points; incentives tax to part-time, 1.2 percentage point; number of weeks of maternity leaves, 18 weeks; family cash benefits, 2.2 percentage points; implicit tax on continued work, 3.3 percentage points; standard age of eligibility to pension benefits, 1/2 year. These changes can be considered to correspond to the size of "historically typical" policy reforms.

Source: OECD estimates (see Table 7.A1.2).

Statlink: *http://dx.doi.org/10.1787/000140633087*

rate and 2.8 percentage points for the tax wedge – are estimated to increase the employment rate of prime-age men of about 0.8 percentage point. The estimated rise in the employment rate of prime-age women is even larger (1.4 percentage points).

… while product market regulations appear to have no effect on men's employment and a negative one on women's employment…

By contrast, stringent PMR does not appear to affect prime-age men's employment while it has a negative effect on women's employment, of a size comparable to that of unemployment benefits and the tax wedge. The latter finding might reflect several factors. First, excessive regulation tends to restrict supply of services such as childcare and household services and drive up their prices, thus making it more difficult for parents to participate in the labour market. Second, restricted opening hours of shops might make it difficult for parents to reconcile work and family life. Third, and more important, by hindering the development of the service sector, excessive regulations of the service market may limit the creation of employment opportunities for women, who tend to be predominantly employed in the service sector.

… and female employment is sensitive to tax-benefit incentives

Another element that emerges from Figure 7.6 is that tax incentives to work part-time – defined here as the gain (loss if negative) in household disposable income from sharing market work between partners[25] – can have an important role in mobilising labour market participation of women and, therefore, employment. However, the employment gains yielded by greater tax incentives to part-time are partially compounded by substitution between part-time and full-time female employment (see Table 7.A1.2, Column 2), so that the overall impact on total hours worked is likely to be small.[26]

Overall, these results are broadly in line with previous OECD work on female participation (Jaumotte, 2004). Yet, two caveats must be kept in mind while interpreting the results for prime-age women. First, empirical results appear to be somewhat sensitive to specifications and country coverage of the sample. Second, the spectacular rise in female employment recorded in several countries over the past two decades is essentially explained by education and fertility patterns, as well as by broader socio-cultural change, rather than by the evolution of structural policies. In the case of Australia, Canada and Spain, for example, between 1982 and 2003 the baseline model "predicts" 17.3, 17.5 and 21.8 percentage point increase, respectively, in prime-age female employment rates. These figures are not far from the employment growth actually observed in the data (18.6, 13.7 and 20.9 percentage points, respectively), but less than one-tenth of this change is explained by policy reforms alone in all three cases.

2.2. Older workers

In the average OECD country, overly high unemployment benefits and tax wedges depress employment of older workers…

The estimates also point to significant negative effects, on average, of high unemployment benefits and high tax wedges on the employment rate of individuals aged 55 to 64 – so-called older workers (Figure 7.6, Panel C). The quantitative impacts of these variables do not appear to differ significantly from those discussed above for prime-age men. Union density is also found to reduce older workers' employment. This finding would be consistent with the view that strong unions may compress the wage structure and drive a wedge between the labour cost and productivity of the least productive workers, thereby pricing them out of the job market (see *e.g.* Bertola *et al.*, 2002b). In the case of older workers, the wage-productivity gap can be further enlarged by the presence of seniority-based pay scales.[27]

… as do retirement incentives…

Not surprisingly, and in line with previous OECD work on labour market participation of older workers (Duval, 2004; OECD, 2006c), there is evidence that pension reforms aiming at improving the return to work *vis-à-vis* retirement may boost employment of older workers significantly. High implicit taxes on continued work – defined as the loss (gain) in net pension wealth from continuing to work, where net pension wealth is defined as the present value of the future stream of pension payments to which a person is entitled over his or her remaining life-time minus the future stream of contributions – appear to deter older workers from remaining in the labour market. High statutory retirement ages have the opposite effect. A "historically typical" pension reform encompassing both a lower implicit tax on continued work and higher statutory retirement age would increase older workers employment rates by up to 0.6 percentage point. In reality, such reforms may produce even larger effects. Indeed, recent reforms have tended to be larger in scope than the "historically typical" one. Moreover, empirical estimates presented here do not take into account the effect of these reforms on labour market participation of individuals over age 65. On the other hand, as stressed in OECD (2006c), it is essential to complement pension reform with measures to avoid that other welfare benefits do not become alternative pathways for early labour market exit. More generally, changes in workplace practices – notably as regards mandatory retirement and "ageism" – are also needed (see Chapter 4).

… but stringent labour and product market regulations seem to have the opposite effect

Remarkably, stringent EPL and PMR appear to have a positive effect on older workers employment. The consequence is that a reduction in EPL or PMR as implied by "historically typical" reforms would reduce older worker employment rates by 0.4 and 0.5 percentage point, respectively, with larger uncertainty bounds in the case of the PMR reform. These findings cautiously suggest that the smaller lay-off risk for incumbent older workers brought about by greater EPL and/or PMR outweigh their negative impact on hiring rates. In fact, the cost of dismissing someone with long tenure is often high when EPL is stringent, so that employers have an additional incentive to retain these workers. By contrast, EPL and PMR might affect hiring of older workers only to some extent, since these workers are close to retirement age (OECD, 2004a).

2.3. Younger workers

Macroeconometric estimates of youth employment outcomes are likely to be fragile

It is especially difficult to analyse the determinants of youth employment, for both conceptual and empirical reasons. Enrolment in education is one of the main reasons behind low youth participation in the labour market – and youth employment cannot be properly understood without taking into account factors that affect the number of years spent in education. To a significant extent, the historical downward trend in youth employment rates reflects the increase in the duration of initial education. On the empirical side, sufficiently long time series of the share of youth enrolled in full-time education are not available and several important drivers of youth education and labour force participation decisions cannot be studied due to lack of data, including returns on education, the effectiveness of the education system or other institutional and policy features that influence the choice of combining education with part-time work. To minimise these problems the current analysis focuses on employment rates of individuals aged from 20 to 24 years.

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There is no clear empirical effect of minimum wages on youth employment, while unemployment benefits and the tax wedge reduce it…

In practice, it turns out that certain empirical results of the determinants of youth employment depend on the methodology used and country coverage of the analysis. In particular, the minimum wage (or youth sub-minimum wage) may have a negative to positive effect on youth employment, depending on the estimation method. Among the most robust results, generous unemployment benefits and high tax wedges appear to reduce youth employment rates in the average OECD country, with estimated impacts that are comparable in size to those found earlier for other population groups (Figure 7.6, Panel D). The former finding might appear surprising, as young workers' employment history is often too short to be entitled to full unemployment benefits. However, it is likely to reflect more indirect effects via higher aggregate unemployment, which in turn discourages youths from entering the labour market, than standard direct effects on employment via higher reservation wages and reduced job-search intensity.

… as does overly strict employment protection legislation

Stringent EPL is also found to significantly depress youth employment, although the estimated magnitude of its impact depends on the specification. This finding lends some support to the view that binding EPL essentially undermines the job prospects of "marginal" groups in the labour market, *e.g.* those groups that enter the labour force and lack labour market credentials.[28]

2.4. Summing up policy influences on employment rates

In the average OECD country, tax wedge and unemployment benefits appear to be the most important determinants of aggregate employment rates …

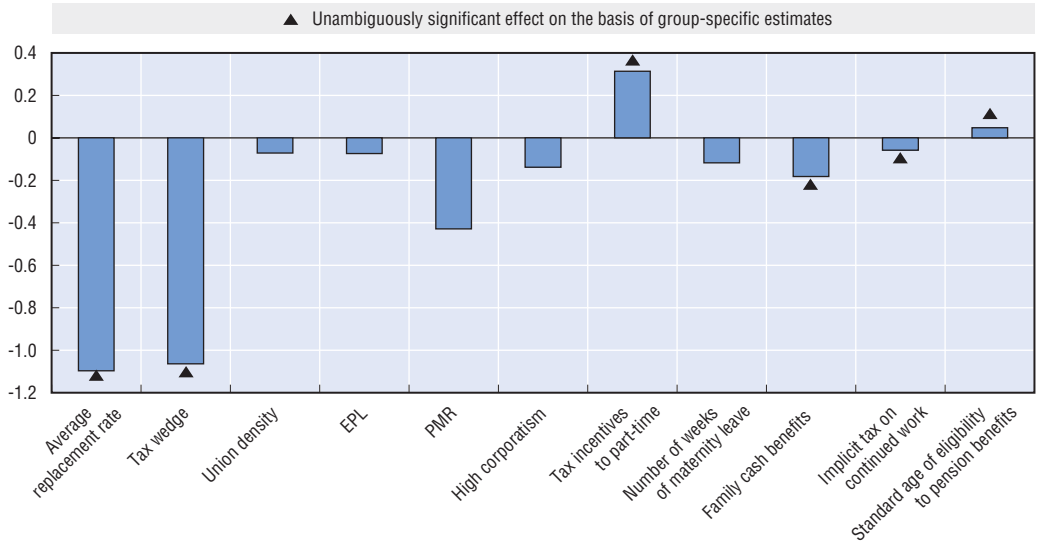
Figure 7.7 summarises the main policy results of group-specific employment rate regressions. High unemployment benefits and high tax wedges tend to have a large and significant negative impact on the employment rates of all groups. *A fortiori*, this implies that these policies can significantly depress the aggregate employment rate. Using population-weighted averages of group-specific coefficients, baseline estimates imply that a "historically typical" reform reducing either the average gross replacement rate by 4.7 percentage points or the tax wedge by 2.8 percentage points would increase the employment rate by 1.1 percentage points in the average OECD country. This finding appears consistent with the results obtained in Section 1 as regards the determinants of aggregate unemployment. By contrast, other general policies and institutions – including PMR and high corporatism which have been found above to have significant influence on aggregate unemployment – appear to have contrasted effects on the employment rates of various groups. As a consequence, their aggregate impact cannot be unambiguously derived.

… while group-specific policies appear to play a minor role

Policies that affect only the employment rate of specific groups also presumably impact on the overall employment rate, even though general equilibrium analysis would ideally need to be undertaken in order to support this view. In particular, lower implicit taxes on continued work, higher statutory retirement ages, higher tax incentives to part-time work and family-friendly policies that increase the return to market work for

Figure 7.7. **Unemployment benefits, tax wedges and several group-specific policies have an unambiguous effect on the aggregate employment rate**

Derived percentage-point impact of one standard deviation increases in policies[a] on the employment rate of the working-age population, baseline model, 1982-2003



EPL: Employment protection legislation. PMR: Product market regulation.

a) For each policy, the figure presents the derived effect on the employment rate of a one standard deviation from the sample average for a country where all other variables are equal to the sample average. Aggregate effects are derived from group-specific estimates using population weights. Standard deviations are computed using time-series variation only (that is, netting out cross-sectional variation). Magnitudes of policy and output gap increases are set as follows: average replacement rate, 4.7 percentage points; tax wedge, 2.8 percentage points; union density, 6.0 percentage points; EPL, 0.3 unit of the synthetic indicator; PMR, 1.0 unit of the synthetic indicator; high corporatism, 1/5 of the value of the dummy variable; output gap, 2.4 percentage points; incentives tax to part-time, 1.2 percentage points; number of weeks of maternity leaves, 18 weeks; family cash benefits, 2.2 percentage points; implicit tax on continued work, 3.3 percentage points; standard age of eligibility to pension benefits, 1/2 year. These changes can be considered to correspond to the size of "historically typical" policy reforms.

Source: OECD estimates (see Figure 7.6).

Statlink: *http://dx.doi.org/10.1787/033656005682*

mothers – such as a substitution of public childcare subsidies for child benefits – all contribute to increase the overall employment rate.

The estimated impact of lower implicit taxes on continued work and higher statutory retirement ages on overall employment has been, however, moderate in the past two decades. This finding reflects three main factors: *i)* countries have been generally reluctant to undertake profound reform of retirement policies, so that the "historically typical" reform (one standard deviation in the time dimension) corresponds to a bare 3.3 percentage point change of the implicit tax; *ii)* despite population ageing, the share of the 55-64 age group in the working-age population remains small (17% on average between 1982 and 2003); and *iii)* the magnitude of estimated elasticities is small compared with other existing studies. The latter two factors imply that even a much greater reform such as, say, a 10 percentage point cut in the implicit tax is estimated to raise the aggregate employment rate by no more than 0.2 percentage point. However, these effects would grow dramatically if predicted rather than actual population shares were used and if the implications for the participation rate of the population aged 65 and over were taken into account.

Notes

1. For more details on the analysis presented here, see Bassanini and Duval (2006). The reader is referred to that paper for sources, technical aspects (including methodological discussions) and sensitivity analyses that are not presented in detail here.

2. There are, however, a number of policies that are inevitably left out from the present analysis due to insufficient data, partially inherent to their purely qualitative nature (for example, lifelong learning policies, policies for the emergence of the informal economy, practices of management of public employment services). For deeper empirical evidence on these issues, see OECD (2003a, 2004a and 2005a).

3. Computed for a sample of 20 OECD countries (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, Norway, New Zealand, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States) using both cross-section and time-series information (at annual frequency) for the period 1982-2003. The same sample is used in regression exercises reported below.

4. Significance levels corresponds to t-statistics that are obtained by estimating the model in Box 7.1 including only one institution at a time plus country and time effects

5. Specification tests (see Bassanini and Duval, 2006) show that the estimates presented in Table 7.A1.1 are consistent and reasonably robust estimates of the average value of the coefficients. Yet, the fact that the average impact of policies and institutions is estimated in a consistent manner does not imply that they have the same effect for all countries. For this reason, estimates and simulations presented in this chapter should be regarded as referring to the average OECD country.

6. In a famous paper, the 1972 Nobel Prize in economics, John Hicks, stated that "The best of all monopoly profits is a quiet life" (Hicks, 1935, p. 8).

7. Estimates reported in Table 7.A1.1 are essentially obtained by exploiting only the information provided by the evolution of policies over time within each country. A standard (but cautious) statistical approach is, therefore, to limit simulations to reforms that are no greater than those observed within the sample – that is the past twenty years. The drawback of this approach is, obviously, that no account is made for the fact that certain reforms have been difficult to implement in many countries but they are not, by this fact, less important.

8. This variable is identified by the switch of certain countries from highly coordinated to decentralised systems and *vice versa*. As its time-series standard deviation is 0.2, this value is used in the simulations presented in Figure 7.2 to maintain comparability with other policies and institutions. To obtain the predicted unemployment gain from switching from low to high corporatism for a country where all other policies are at the OECD average, one must multiply by five the figure presented in Figure 7.2, obtaining 1.42 percentage points. Furthermore, the baseline specification includes a dummy for intermediate corporatism. However, being time-invariant within the sample, the effect of this variable is not identified (even if controlled for) and therefore is not reported in the tables and figures of this chapter.

9. Total factor productivity (TFP) shocks are defined here as the deviation of the logarithm of TFP from its trend calculated by means of a Hodrick-Prescott filter: in the presence of lagged wage adjustment to productivity growth, positive (negative) productivity surprises – as measured here by a positive (negative) gap between actual and trend TFP – should induce a temporary decline (increase) in structural unemployment (see *e.g.* Ball and Moffitt, 2002; Meyer, 2000). Terms of trade shocks are defined as the ratio of imports to output multiplied by the logarithm of their relative prices [(M/Y) log (PM / PY)] *i.e.* in such a way that its growth rate is the change in the relative price of imports weighted by the share of imports in GDP: by widening the wedge between consumer and producer prices, a rise in the relative price of imports should increase wage pressure and, ultimately, unemployment (see *e.g.* Layard *et al.*, 1991). Real interest rate shocks are defined as the difference between the ten-year nominal government bond yield and the annual GDP price inflation: a rise in real interest rates affects negatively capital accumulation and labour productivity, thereby reducing labour demand (at a given wage level) and increasing unemployment (see *e.g.* Blanchard, 1999, 2000). Certain specifications also include labour demand shocks, defined as the logarithm of the labour share in business-sector GDP purged from the short-run influence of factor prices, as in Blanchard (1998) and Blanchard and Wolfers (2000).

10. The difference between the two figures reflects the fact that certain countries were in different phases of the business cycle at the beginning and at the end of the period.

11. The key finding that tax wedges, average benefit replacement rates, product market regulation and high corporatism have significant unemployment effects appear also to be robust to several sensitivity exercises, concerning the choice of the estimation sample, model specifications, estimation techniques (including General Method of Moments estimation to better control for endogeneity of policy variables).

12. These countries were in different phases of the business cycle in 1982 and in 2003. As a consequence, their output gap does not have the same value at the beginning and at the end of the period under analysis (compare Panel A with Panel B).

13. Several specific policy interactions have been analysed in the literature, often with contrasting results (see *e.g.* Elmeskov *et al.*, 1998; IMF, 2003; Belot and van Ours, 2001; Nicoletti and Scarpetta, 2005). Yet, these studies do not always take into account the fact that all interactions are theoretically possible (see Box 7.2, first bullet) and should therefore be studied simultaneously, otherwise estimation results can be spurious.

14. Namely that *i)* policies and institutions have limited direct impact on the sensitivity of wage claims and labour demand to unemployment and real wages, respectively; and *ii)* the labour demand is convex, that is such that a greater fall in real wages is necessary to increase it when employment is low rather than when employment is high. To put it another way, these conditions imply that the effect discussed in the second bullet of Box 7.2 dominates any counteracting effect discussed in the first bullet. Although the consistency of the estimates crucially hinges upon the validity of these specific theoretical assumptions, systemic interactions turn out to be more robust than standard interactions, notably to controls for omitted interactions.

15. See also Table 6.4. The additional effect of the combination of the four reforms, over and above the sum of the effect of each reform taken in isolation, can be obtained by summing the values in all cells.

16. In particular, *i)* data on housing policy and home-ownership are scattered and available essentially in cross-section; *ii)* reliable minimum wage time series exist only for countries where minimum wages are statutory; and *iii)* measures of ALMP intensity are available only since 1985 and are likely to be endogenous to unemployment by construction.

17. Yet, statutory minima are available for ten countries and results are somewhat difficult to generalise to countries where minimum wages are set by collective bargaining.

18. ALMP expenditure per unemployed person is the standard indicator of countries' spending efforts in pursuing activation policies used in most macroeconomic studies. This indicator is expressed as a percentage of GDP per capita to ensure cross-country comparability (*e.g.* Scarpetta, 1996; Nickell, 1997, 1998; Nickell and Layard, 1999; Boone and van Ours, 2004). Since ALMP expenditures are unlikely to vary in proportion to changes in unemployment, such a synthetic indicator of ALMP spending is likely to be endogenous insofar as it tends to decline (rise) when unemployment goes up (down). Instrumental variable techniques become thus necessary. Several different instrumental variable approaches have been used, including: 2SLS using average ALMP spending per country as an instrument; 2SLS using suitable lags of cyclically adjusted ALMP spending as instruments; and system GMMs.

19. Bassanini and Duval (2006), Table 1.9.

20. Such a reform implies an increase in total expenditures per unemployed worker as a percentage of GDP per capita by 10 percentage points from the OECD average (27.9% in 2000).

21. More precisely, Figure 7.4 shows the impact that unemployment benefit would have in each country, taking into account the level of their spending in ALMPs, if other institutional and policy variables were set at the OECD average. For example, these estimates imply that a country were all other variables are set at the OECD average would have 0.3 percentage point lower unemployment if ALMP spending and unemployment insurance were set at the level of Denmark rather than the United States.

22. However, the separate impact of EPL and PMR is difficult to disentangle insofar as they are highly correlated and interact with shocks through similar channels. In fact, the effect of these variables becomes somewhat less significant when they are simultaneously included in the specification.

23. In other words, not undertaking that reform would imply maintaining the persistence of adverse shocks at a level that is 32% higher than in the average OECD country.

24. Yet, due to the inefficiency of the estimates of persistence effects, the impact of PMR is, albeit large, statistically insignificant.

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25. The gain (loss) is calculated as the difference in household net income between a situation in which a single breadwinner earns 133% of the average production worker (APW) while his/her partner stays out of the labour force and a situation in which the main breadwinner earns 100% of APW and the second earner 33% of APW, possibly by taking up a part-time job. This difference is expressed as a percentage of household net income in the second situation.

26. Furthermore, parental leaves appear to be detrimental to part-time work, but they have a positive impact on full-time employment (the overall effect remains negative but is significant only at the 10% level and depends on the specification). Child benefits are also found to reduce aggregate female employment rates through their significant negative impact on part-time work. Finally (although not shown in the figure) in some specifications there is evidence that childcare expenditures have positive overall impact on female employment.

27. High corporatism is also found to have a negative and significant impact on older workers' employment. Yet, this result is entirely dependent on the presence of Italy in the sample.

28. However, if equations are specified in terms of unemployment rates rather than employment rates, EPL does not come out significant in all specifications. Additionally, Figure 7.7, Panel D, shows also a negative impact of high corporatism on youth employment, but this result depends on the specification and on the presence of Australia in the sample.

ANNEX 7.A1

Baseline Regression Models

Table 7.A1.1. **Baseline unemployment rate equations, 1982-2003**

	1	2	3	4	5	6	7
	Baseline	= 1 with ARR split into two components	= 1 with EPL split into two components	= 1 with tax wedge derived from national accounts	= 4 with separate labour and consumption tax rates	= 1 with standard macroeconomic shocks	= 6 with labour demand shock
Average replacement rate (ARR)	0.12		0.12	0.08	0.09	0.10	0.09
	[6.28]***		[6.79]***	[4.22]***	[4.16]***	[4.14]***	[3.35]***
Tax wedge	0.28	0.27	0.27	0.24		0.24	0.22
	[9.75]***	[10.96]***	[11.14]***	[4.49]***		[7.73]***	[6.40]***
Union density	–0.03	–0.03	–0.03	–0.02	–0.01	0.04	0.06
	[1.57]	[1.89]*	[1.64]	[0.56]	[0.49]	[1.48]	[2.33]**
EPL	–0.31	–0.20		0.03	0.01	–0.61	–0.51
	[0.98]	[0.55]		[0.08]	[0.02]	[–1.52]	[–1.22]
PMR	0.60	0.67	0.73	0.50	0.50	0.54	0.79
	[2.98]***	[3.29]***	[3.52]***	[2.17]**	[2.17]**	[2.25]**	[3.28]***
High corporatism	–1.42	–1.09	–1.39	–2.06	–2.09	–1.42	–1.58
	[3.57]***	[2.88]***	[3.94]***	[4.80]***	[4.89]***	[–2.90]**	[–3.26]***
Output gap	–0.48	–0.48	–0.47	–0.54	–0.54		
	[14.00]***	[14.21]***	[13.99]***	[11.89]***	[11.60]***		
RR 1st year		0.09					
		[7.37]***					
Benefit duration		2.64					
		[2.03]**					
(RR 1st)*(duration)		0.09					
		[2.69]***					
EPL regular			1.28				
			[2.49]**				
EPL temporary			–0.45				
			[2.16]**				
(EPL regular)*(EPL temporary)			–0.28				
			[1.21]				
Labour tax rate					0.25		
					[4.82]***		
Consumption tax rate					0.21		
					[1.92]*		
Macroeconomic shocks							
Productivity shock						–12.81	–8.87
						[–3.34]***	[–2.33]**
Terms of trade shock						19.40	19.09
						[6.45]***	[6.09]***
Interest rate shock						0.22	0.19
						[2.72]***	[2.44]**
Labour demand shock							11.79
							[3.91]***
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	434	434	434	398	398	419	397
R-squared	0.98	0.92	0.92	0.98	0.98	0.98	0.98

***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.
EPL: Employment protection legislation. PMR: Product market regulation. RR: Replacement rate.
OLS estimators. Absolute value of robust t-statistics in brackets.
Source: OECD estimates.

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Table 7.A1.2. **Baseline employment rate equations, 1982-2003**

	1	2			3	4
	Prime-age men	Prime-age women			Older workers (55-64)	Youth (20-24)
		Full-time	Part-time	Aggregate[a]		
General policies and institutions						
Average replacement rate	–0.17	–0.14	–0.17	–0.32	–0.19	–0.24
	[7.42]***	[3.71]***	[3.00]***	***	[7.12]***	[5.61]***
Tax wedge	–0.30	–0.12	–0.38	–0.50	–0.31	–0.34
	[8.34]***	[2.34]**	[4.45]***	***	[6.74]***	[5.86]***
Union density	0.06	0.16	–0.21	–0.05	–0.13	0.06
	[2.30]**	[3.47]***	[3.00]***		[5.34]***	[1.39]
EPL	–0.23	–1.54	0.99	–0.55	1.59	–2.35
	[0.66]	[3.06]***	[1.32]		[2.62]***	[2.97]***
PMR	–0.12	–0.75	–0.86	–1.60	0.56	0.51
	[0.47]	[2.67]***	[1.99]**	***	[1.74]*	[1.04]
High corporatism	0.48	–1.63	0.57	–1.06	–1.35	–1.66
	[1.14]	[2.06]**	[0.47]		[3.09]***	[2.13]**
Group-specific policies and institutions						
Tax incentives to part-time		–0.58	1.35	0.76		
		[8.91]***	[11.34]***	***		
Relative marginal tax rate on 2nd earner		0.38	–1.23	–0.85		
(transition 100/0-100/66)		[0.55]	[0.98]			
Family cash benefits		0.06	–0.30	–0.24		
		[1.47]	[3.83]***	***		
Leave weeks		0.02	–0.04	–0.02		
		[2.60]***	[2.83]***	*		
Implicit tax on continued work					–0.10	
					[2.82]***	
Standard age of eligibility to pension benefits					0.57	
					[2.28]**	
Control variables						
Female education		2.90	–0.63	2.27		
		[4.72]***	[0.57]	**		
Youth education						–3.18
						[3.77]***
Youth cohort size						–0.22
						[3.44]***
Output gap	0.49	0.17	0.10	0.26	0.20	0.82
	[11.60]***	[3.17]***	[1.25]	***	[4.39]***	[10.72]***
Other controls[b]	No		Yes		No	No
Country dummies	Yes		Yes		Yes	Yes
Time dummies	Yes		Yes		Yes	Yes
Observations	404		277		279	367
R-squared	0.99	0.99	0.96		0.99	0.94

Seemingly Unrelated Regression Estimators (SURE) of models including, for each of them, the displayed equation(s) plus an equation for prime age men. Absolute value of t statistics in brackets. Equations for prime age men for models corresponding to Columns 2 to 4 are not shown.

***, **, *, statistically significant at 1%, 5% and 10% levels, respectively.

a) Derived impact of each explanatory variable on the aggregate prime age female employment rate. This impact is derived as the sum of each variable's effects on full time and part time employment rates. Its degree of significance is provided by a Fisher test of the null assumption that the sum of the coefficients on full time and part time employment rates is zero.

b) Other controls include the proportion of married women, the number of children per woman as well as the interaction between the latter two variables.

Source: OECD estimates.

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Statistical Annex

Sources and definitions

Most of the statistics shown in these tables can be found as well in three other (paper or electronic) publications or references, as follows:

- the annual edition of *OECD Labour Force Statistics, 1985-2005*;
- OECD.Stat, the OECD's central data warehouse (*http://dotstat/WBOS/default.aspx*), which contains both raw data and derived statistics;
- the OECD On-Line Labour Force Statistics database allows free access to the data and shows both raw data (see URL: *www.oecd.org/scripts/cde/members/LFSDATAAuthenticate.asp*) and derived statistics (*www.oecd.org/scripts/cde/members/LFSINDICATORSAuthenticate.asp*). This Web site will be phased-out in 2006, while its content can be found under the theme "labour" in OECD.Stat.

These publications, which include information on definitions, notes and sources used by member countries, include longer time series and more detailed data by age group, gender, duration of unemployment, etc., than are shown in this annex.

Sources and definitions for data shown in the Statistical Annex tables are specified at the bottom of each table.

Please note that the data on employment, unemployment and the labour force are not necessarily the same as the series used for analyses and forecasting by the OECD Economics Department and reproduced in Tables 1.2 and 1.3 of Chapter 1 of this publication.

Interested users can refer to the on-line database, which contains data series describing the labour supply: population, labour force, employment and unemployment disaggregated by gender and age, educational attainment, employment status and sector of activity, participation and unemployment rates, statistics on part-time employment and duration of unemployment. The on-line database contains a number of additional series on labour market results and on features of the institutional and regulatory environment affecting the functioning of labour markets. Among these are the following:

- annual hours of work data for comparisons of trends over time;
- gross earnings by percentile for deriving measures of earnings dispersion for full-time workers by gender;
- gross mean and median earnings of full-time workers by age group and gender;
- statutory minimum wages;
- public expenditure on labour market programmes, number of beneficiaries and inflows into the labour market;
- trade-union density rates in OECD member countries.

Conventional signs

. . Data not available

. Decimal point

| Break in series

- Nil or less than half of the last digit used

Major breaks in series

Table A: breaks in series have been adjusted to ensure that standardised unemployment rates are consistent over time.

Tables B to E and Table G: most of the breaks in series mentioned below occurred for any of the following reasons: changes in survey design, survey questionnaire, survey frequency and administration, revisions of data series based on updated population census results. These changes have affected the comparability over time of employment and/or unemployment levels and to a certain extent the ratios reported in the aforementioned tables:

- Introduction of a continuous survey: Austria (2003/04), Belgium (1998/99), the Czech Republic (1996/97), Finland (1999/2000), France (2002/03), Germany (2004/05), Hungary (2002/03), Iceland (2003/04), Ireland (1996/97/98), Italy (2003/04), Luxembourg (2002/03), Norway (1995/96), Poland (1998/99/2000), Portugal (1997/98), the Slovak Republic (1997/98), Spain (1998/99), Sweden (1998/99).
- Redesign of labour force survey: Greece (1997/98), Portugal (1997/98), the Slovak Republic (1998/99), Spain (2004/05), Turkey (1999/2000 – half-yearly to quarterly results).
- Change in the operational definition of unemployment regarding:
  - active job search methods, in particular change from registration to contact with the public employment service: France (2002/03), Spain (2000/01);
  - duration of job search changed from one week to four weeks: Korea (2004/05);
  - other minor changes: Australia (2000/01).
- Changes in the questionnaire with impact on employment and unemployment estimates: Spain (2004/05); and unemployment estimates: Sweden (2004/05).
- Change from a seasonal to a calendar quarter: the Slovak Republic (1999/2000).
- Inclusion of population controls based on census results in the estimation process: Spain (1995/96), the United Kingdom (revised series 1992), the United States (1999/2000).

Further explanations on breaks in series and their impact on employment and unemployment levels and on ratios can be found at: *www.oecd.org/els/employmentoutlook/statannex*.

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Table A. **Standardised unemployment rates in 27 OECD countries**

As a percentage of civilian labour force

	1990	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Australia	6.7	9.5	8.2	8.2	8.3	7.7	6.9	6.3	6.8	6.4	6.1	5.5	5.1
Austria	..	3.8	3.9	4.3	4.4	4.5	4.0	3.6	3.6	4.2	4.3	4.9	5.2
Belgium	6.6	9.8	9.7	9.5	9.2	9.3	8.5	6.9	6.6	7.5	8.2	8.4	8.4
Canada	8.1	10.4	9.5	9.6	9.1	8.3	7.6	6.8	7.2	7.7	7.6	7.2	6.8
Czech Republic	..	4.4	4.1	3.9	4.8	6.4	8.6	8.7	8.0	7.3	7.8	8.3	7.9
Denmark	7.2	7.7	6.8	6.3	5.3	4.9	5.1	4.4	4.5	4.6	5.4	5.5	4.8
Finland	3.2	16.8	15.2	14.6	12.7	11.3	10.2	9.8	9.1	9.1	9.0	8.9	8.4
France	8.5	11.7	11.1	11.6	11.5	11.1	10.5	9.1	8.4	8.9	9.5	9.6	9.5
Germany[a]	4.8	8.3	8.0	8.6	9.2	8.8	7.9	7.2	7.4	8.2	9.1	9.5	9.5
Greece	6.3	8.9	9.1	9.7	9.6	11.1	12.0	11.3	10.8	10.3	9.7	10.5	9.8
Hungary	..	11.0	10.4	9.6	9.0	8.4	6.9	6.4	5.7	5.8	5.9	6.1	7.2
Ireland	13.4	14.3	12.3	11.7	9.9	7.5	5.7	4.3	4.0	4.5	4.7	4.5	4.3
Italy	8.9	10.6	11.2	11.2	11.2	11.3	11.0	10.1	9.1	8.6	8.4	8.0	7.7
Japan	2.1	2.9	3.2	3.4	3.4	4.1	4.7	4.7	5.0	5.4	5.3	4.7	4.4
Korea	2.4	2.5	2.1	2.0	2.6	7.0	6.6	4.4	4.0	3.3	3.6	3.7	3.7
Luxembourg	1.7	3.2	2.9	2.9	2.7	2.7	2.4	2.3	2.1	2.8	3.7	4.8	5.3
Netherlands	5.9	6.8	6.6	6.0	4.9	3.8	3.2	2.8	2.2	2.8	3.7	4.6	4.8
New Zealand	7.8	8.1	6.3	6.1	6.6	7.4	6.8	6.0	5.3	5.2	4.6	3.9	3.7
Norway	5.8	6.0	5.5	4.8	4.0	3.2	3.3	3.4	3.6	3.9	4.5	4.4	4.6
Poland	..	14.4	13.3	12.3	10.9	10.2	13.4	16.1	18.2	19.9	19.6	19.0	17.8
Portugal	4.8	6.9	7.3	7.3	6.8	5.1	4.5	4.0	4.0	5.0	6.3	6.7	7.6
Slovak Republic	..	13.7	13.1	11.3	11.9	12.6	16.3	18.8	19.3	18.7	17.6	18.2	16.4
Spain	13.0	19.5	18.4	17.8	16.7	15.0	12.5	11.1	10.3	11.1	11.1	10.6	9.2
Sweden	1.7	9.4	8.8	9.6	9.9	8.2	6.7	5.6	4.9	4.9	5.6	6.4	..
Switzerland	..	3.9	3.5	3.9	4.2	3.6	3.0	2.7	2.6	3.2	4.2	4.4	4.5
United Kingdom	6.9	9.3	8.5	7.9	6.8	6.1	5.9	5.4	5.0	5.1	4.9	4.7	4.7
United States	5.6	6.1	5.6	5.4	4.9	4.5	4.2	4.0	4.7	5.8	6.0	5.5	5.1
EU-15[b]	8.1	10.5	10.1	10.2	9.9	9.3	8.6	7.7	7.3	7.7	8.0	8.1	7.9
OECD Europe[b]	8.0	10.5	10.1	10.0	9.7	9.2	8.9	8.4	8.2	8.6	8.9	8.9	8.6
Total OECD[b]	6.1	7.7	7.3	7.2	6.9	6.9	6.7	6.2	6.4	6.9	7.1	6.9	6.6

a) For 1990, the data refer to western Germany; subsequent data concern the whole of Germany.

b) For above countries only.

Note: In so far as possible, the data have been adjusted to ensure comparability over time and to conform to the guidelines of the International Labour Office. All series are benchmarked to labour-force-survey-based estimates. In countries with annual surveys, monthly estimates are obtained by interpolation/extrapolation and by incorporating trends in administrative data, where available. The annual figures are then calculated by averaging the monthly estimates (for both unemployed and the labour force). For countries with monthly or quarterly surveys, the annual estimates are obtained by averaging the monthly or quarterly estimates, respectively. For several countries, the adjustment procedure used is similar to that of the Bureau of Labor Statistics, U.S. Department of Labor. For EU countries, the procedures are similar to those used in deriving the Comparable Unemployment Rates (CURs) of the Statistical Office of the European Communities. Minor differences may appear mainly because of various methods of calculating and applying adjustment factors, and because EU estimates are based on the civilian labour force. For a fuller description, please refer to the following URL: www.oecd.org\std.

Source: OECD (2006), *OECD Main Economic Indicators,* May, Paris.

Statlink: *http://dx.doi.org/442538841646*

Table B. **Employment/population ratios, activity and unemployment rates**[a]

Persons aged 15-64 years (percentages)

	Employment/population ratio						Labour force participation rate						Unemployment rate					
	1994	2001	2002	2003	2004	2005	1994	2001	2002	2003	2004	2005	1994	2001	2002	2003	2004	2005
Australia	66.0	69.0	69.4	70.0	70.3	71.6	73.2	74.1	74.3	74.6	74.5	75.5	9.9	6.9	6.5	6.1	5.6	5.2
Austria	68.3	68.0	68.5	68.7	67.8	68.6	70.8	70.6	71.3	71.8	71.3	72.4	3.6	3.7	4.0	4.2	5.0	5.2
Belgium	55.7	59.7	59.7	59.3	60.5	61.0	61.7	63.6	64.1	64.3	65.3	66.4	9.7	6.2	6.9	7.7	7.4	8.1
Canada	67.0	70.8	71.4	72.2	72.5	72.5	74.9	76.4	77.4	78.2	78.2	77.8	10.5	7.3	7.7	7.7	7.3	6.8
Czech Republic	69.2	65.3	65.7	64.9	64.2	64.8	72.4	71.1	70.9	70.4	70.1	70.4	4.3	8.2	7.3	7.8	8.4	8.0
Denmark	72.4	75.9	76.4	75.1	76.0	75.5	78.8	79.2	79.9	79.4	80.2	79.4	8.1	4.2	4.3	5.5	5.3	4.9
Finland	59.9	67.7	67.7	67.4	67.2	68.0	72.0	74.6	74.5	74.0	73.7	74.3	16.7	9.2	9.1	9.1	8.9	8.5
France	58.4	62.0	62.2	62.5	62.4	62.3	66.6	68.0	68.3	69.3	69.3	69.1	12.4	8.8	8.9	9.8	10.0	9.9
Germany	64.5	65.8	65.3	64.6	65.0	65.5	70.5	71.5	71.5	71.3	72.6	73.8	8.5	7.9	8.7	9.4	10.4	11.3
Greece	54.1	55.6	57.7	58.9	59.6	60.3	59.5	62.1	64.2	65.1	66.5	66.8	9.1	10.4	10.1	9.5	10.4	9.8
Hungary	53.5	56.2	56.2	57.0	56.8	56.9	60.0	59.6	59.7	60.6	60.5	61.4	10.8	5.7	5.8	5.9	6.1	7.3
Iceland[b]	78.5	84.6	82.8	84.1	82.8	84.4	83.0	86.6	85.6	87.1	85.5	86.7	5.4	2.3	3.2	3.4	3.1	2.7
Ireland	51.9	65.0	65.0	65.0	65.5	67.1	61.1	67.5	67.9	68.0	68.6	70.2	15.1	3.7	4.3	4.5	4.4	4.3
Italy	51.5	54.9	55.6	56.2	57.4	57.5	58.0	60.7	61.2	61.6	62.5	62.4	11.1	9.6	9.1	8.7	8.1	7.8
Japan	69.3	68.8	68.2	68.4	68.7	69.3	71.4	72.6	72.3	72.4	72.2	72.6	3.0	5.2	5.6	5.4	4.9	4.6
Korea	62.8	62.1	63.3	63.0	63.6	63.7	64.5	64.8	65.6	65.4	66.1	66.3	2.6	4.2	3.4	3.7	3.8	3.9
Luxembourg	60.2	63.0	63.6	62.7	62.6	63.6	62.3	64.1	65.3	65.1	66.0	66.6	3.5	1.8	2.6	3.7	5.1	4.5
Mexico	58.7	60.1	60.1	59.6	60.8	59.6	61.4	61.5	61.6	61.2	62.8	61.8	4.4	2.2	2.5	2.6	3.1	3.6
Netherlands	63.9	72.8	73.1	72.7	72.0	..	68.6	74.8	75.4	75.9	75.8	..	6.8	2.7	3.1	4.2	5.0	..
New Zealand	68.0	71.8	72.4	72.5	73.5	74.6	74.0	75.9	76.4	76.1	76.6	77.5	8.2	5.4	5.2	4.7	4.0	3.8
Norway[b]	72.2	77.5	77.1	75.8	75.6	75.2	76.4	80.3	80.3	79.3	79.1	78.9	5.4	3.5	4.0	4.5	4.5	4.7
Poland	58.3	53.5	51.7	51.4	51.9	53.0	68.4	65.7	64.8	64.2	64.2	64.6	14.8	18.6	20.3	20.0	19.3	18.0
Portugal	64.0	68.6	68.1	67.1	67.8	67.5	69.0	71.7	72.0	72.0	72.9	73.4	7.2	4.3	5.4	6.8	7.0	8.1
Slovak Republic	59.8	56.9	56.9	57.7	57.0	57.7	69.3	70.5	69.9	70.0	69.7	68.9	13.7	19.3	18.7	17.6	18.2	16.2
Spain[b]	47.4	58.8	59.5	60.7	62.0	64.3	62.4	65.8	67.1	68.5	69.7	70.8	24.0	10.5	11.4	11.4	11.0	9.2
Sweden[b]	71.5	75.2	74.9	74.3	73.5	..	79.2	79.3	79.0	78.9	78.7	..	9.7	5.1	5.3	5.8	6.6	..
Switzerland	75.6	79.2	78.9	77.9	77.4	77.2	78.8	81.2	81.3	81.4	81.0	80.9	3.9	2.5	3.0	4.2	4.4	4.5
Turkey	52.4	47.8	46.7	45.5	46.1	45.9	57.5	52.3	52.3	51.1	51.5	51.3	8.8	8.6	10.6	10.8	10.6	10.5
United Kingdom[b]	68.7	72.5	72.3	72.6	72.7	72.6	76.0	76.1	76.2	76.3	76.2	76.1	9.7	4.8	5.1	4.9	4.7	4.6
United States[b]	72.0	73.1	71.9	71.2	71.2	71.5	76.7	76.8	76.4	75.8	75.4	75.4	6.2	4.8	5.9	6.1	5.6	5.1
EU-15[c]	59.9	64.1	64.3	64.4	64.9	65.4	67.5	69.3	69.7	70.1	70.7	71.3	11.2	7.4	7.8	8.2	8.3	8.2
EU-19[c]	59.9	62.9	62.9	63.0	63.5	64.0	67.5	68.8	69.1	69.3	69.9	70.4	11.3	8.5	8.9	9.2	9.2	9.1
OECD Europe[c]	59.4	61.4	61.2	61.1	61.5	61.9	66.6	67.0	67.2	67.2	67.7	68.1	10.9	8.4	8.9	9.2	9.2	9.1
Total OECD[c]	64.0	65.5	65.1	64.9	65.3	65.5	69.5	69.9	69.9	69.8	70.1	70.3	7.8	6.3	6.9	7.1	6.9	6.7

Table B. **Employment/population ratios, activity and unemployment rates**[a] (*cont.*)

Men aged 15-64 years (percentages)

	Employment/population ratio						Labour force participation rate						Unemployment rate					
	1994	2001	2002	2003	2004	2005	1994	2001	2002	2003	2004	2005	1994	2001	2002	2003	2004	2005
Australia	75.0	76.4	76.8	77.1	77.6	78.5	83.5	82.3	82.3	82.1	82.1	82.7	10.2	7.1	6.7	6.1	5.5	5.0
Austria	77.5	76.2	75.9	76.0	74.9	75.4	80.2	79.0	79.1	79.4	78.5	79.3	3.3	3.5	4.1	4.3	4.6	4.9
Belgium	66.5	68.5	68.1	67.1	67.9	67.7	72.0	72.7	72.6	72.6	72.7	73.1	7.7	5.7	6.3	7.5	6.7	7.4
Canada	73.0	75.7	75.9	76.4	76.7	76.7	82.0	81.9	82.7	83.1	82.9	82.5	11.0	7.6	8.2	8.0	7.6	7.1
Czech Republic	77.5	73.6	74.2	73.4	72.4	73.3	80.4	79.0	78.9	78.2	78.0	78.4	3.6	6.8	5.9	6.1	7.1	6.5
Denmark	77.6	80.2	80.2	79.7	79.9	80.1	83.7	83.3	83.8	84.0	84.2	83.6	7.3	3.7	4.3	5.2	5.1	4.2
Finland	61.1	70.0	69.2	69.0	68.8	69.4	74.8	76.7	76.2	75.9	75.4	75.7	18.3	8.7	9.1	9.3	8.9	8.3
France	66.1	69.0	68.6	68.6	68.1	67.8	74.1	74.3	74.5	75.3	74.9	74.5	10.8	7.1	7.9	8.8	9.0	9.0
Germany	74.0	72.8	71.7	70.4	70.8	71.4	79.8	79.0	78.7	78.0	79.2	80.6	7.2	7.8	8.8	9.7	10.7	11.5
Greece	72.2	70.9	72.5	73.5	74.0	74.5	77.0	76.2	77.6	78.3	79.1	79.2	6.2	6.9	6.6	6.1	6.5	5.9
Hungary	59.6	63.0	62.9	63.4	63.1	63.1	67.8	67.2	67.1	67.6	67.2	67.9	12.1	6.3	6.2	6.1	6.1	7.0
Iceland[b]	82.4	88.0	85.7	86.8	86.2	87.4	86.8	90.0	88.9	90.1	89.1	89.8	5.1	2.1	3.6	3.7	3.3	2.7
Ireland	64.8	76.0	74.7	74.5	75.2	76.2	76.2	79.0	78.3	78.3	79.1	79.9	15.0	3.9	4.7	4.9	5.0	4.7
Italy	67.8	68.7	69.2	69.7	69.7	69.7	74.2	74.2	74.5	74.8	74.5	74.4	8.6	7.4	7.0	6.8	6.4	6.3
Japan	81.9	80.5	79.9	79.8	80.0	80.4	84.4	85.0	84.8	84.6	84.2	84.4	2.9	5.4	5.8	5.7	5.1	4.7
Korea	76.3	73.5	74.9	75.0	75.2	75.0	78.6	77.1	77.9	78.0	78.3	78.2	2.9	4.7	3.8	3.9	4.0	4.1
Luxembourg	74.9	74.9	75.5	73.3	73.1	73.4	77.3	76.1	77.0	75.5	75.9	76.0	3.0	1.6	1.9	3.0	3.7	3.5
Mexico	82.9	83.4	82.6	82.0	82.5	80.2	86.4	85.2	84.7	84.2	85.0	83.1	4.1	2.1	2.5	2.6	3.0	3.5
Netherlands	74.9	81.5	81.4	80.2	78.8	..	79.6	83.3	83.8	83.7	83.0	..	5.9	2.2	2.8	4.2	5.0	..
New Zealand	76.2	79.1	79.8	79.4	80.8	81.5	83.4	83.6	84.1	83.1	83.8	84.4	8.6	5.4	5.1	4.4	3.6	3.5
Norway[b]	76.8	81.0	80.2	78.7	78.4	78.3	81.6	84.0	83.9	82.8	82.5	82.3	6.0	3.6	4.2	5.0	4.9	4.9
Poland	64.9	59.2	57.0	56.7	57.4	59.0	75.0	71.5	70.8	70.2	70.4	71.0	13.4	17.2	19.5	19.3	18.5	16.9
Portugal	73.5	76.5	75.7	73.9	74.1	73.4	78.4	79.2	79.3	78.5	79.0	79.0	6.3	3.4	4.5	5.9	6.2	7.1
Slovak Republic	67.2	62.1	62.5	63.4	63.2	64.6	77.6	77.4	76.7	76.7	76.5	76.4	13.3	19.8	18.6	17.4	17.3	15.4
Spain[b]	63.3	73.8	73.9	74.5	74.9	76.4	78.5	79.8	80.4	81.1	81.6	82.2	19.4	7.5	8.1	8.2	8.2	7.1
Sweden[b]	72.2	76.9	76.4	75.7	75.0	..	81.3	81.3	80.9	80.8	80.7	..	11.1	5.5	5.8	6.4	7.0	..
Switzerland	86.3	87.6	86.2	85.1	84.5	83.9	89.6	89.2	88.7	88.5	88.0	87.4	3.6	1.7	2.9	3.9	4.0	4.0
Turkey	74.6	69.3	66.9	65.9	67.9	68.2	81.9	76.1	75.1	74.0	76.1	76.2	9.0	9.0	11.0	11.0	10.8	10.5
United Kingdom[b]	75.3	79.1	78.6	78.9	78.9	78.6	85.1	83.5	83.3	83.6	83.1	82.8	11.5	5.3	5.7	5.5	5.0	5.1
United States[b]	79.0	79.4	78.0	76.9	77.2	77.6	84.3	83.4	83.0	82.2	81.9	81.8	6.2	4.9	6.0	6.4	5.7	5.1
EU-15[c]	70.5	73.2	72.9	72.7	72.7	73.1	78.4	78.3	78.4	78.5	78.7	79.1	10.0	6.5	7.0	7.5	7.6	7.6
EU-19[c]	69.9	71.6	71.2	71.0	71.0	71.5	77.9	77.5	77.5	77.5	77.6	78.1	10.2	7.5	8.1	8.5	8.5	8.4
OECD Europe[c]	70.7	71.7	70.9	70.6	70.9	71.3	78.5	77.5	77.4	77.3	77.6	78.0	9.9	7.6	8.4	8.7	8.7	8.5
Total OECD[c]	75.4	75.8	75.1	74.6	74.9	75.1	81.4	80.7	80.5	80.2	80.3	80.3	7.4	6.0	6.7	6.9	6.7	6.5

Table B. **Employment/population ratios, activity and unemployment rates**[a] *(cont.)*

Women aged 15-64 years (percentages)

	Employment/population ratio						Labour force participation rate						Unemployment rate					
	1994	2001	2002	2003	2004	2005	1994	2001	2002	2003	2004	2005	1994	2001	2002	2003	2004	2005
Australia	56.9	61.7	62.1	62.9	63.1	64.7	62.8	66.0	66.3	67.1	66.9	68.4	9.5	6.5	6.3	6.2	5.7	5.3
Austria	58.8	59.8	61.0	61.5	60.7	62.0	61.3	62.2	63.5	64.2	64.2	65.6	4.0	3.8	3.9	4.2	5.4	5.5
Belgium	44.8	50.7	51.1	51.4	53.0	54.1	51.2	54.5	55.4	55.8	57.7	59.5	12.5	6.9	7.8	8.0	8.3	9.0
Canada	61.1	65.9	67.0	67.9	68.4	68.3	67.8	70.8	72.1	73.2	73.4	73.1	9.8	6.9	7.2	7.2	6.9	6.5
Czech Republic	61.0	57.0	57.1	56.3	56.0	56.3	64.4	63.2	62.8	62.5	62.2	62.4	5.2	9.9	9.1	9.9	10.0	9.8
Denmark	67.1	71.4	72.6	70.5	72.0	70.8	73.8	75.0	75.9	74.8	76.1	75.1	9.0	4.8	4.4	5.8	5.5	5.6
Finland	58.7	65.4	66.1	65.7	65.5	66.5	69.1	72.5	72.8	72.1	71.9	72.9	14.9	9.7	9.1	8.9	9.0	8.7
France	50.8	55.2	55.8	56.4	56.7	56.9	59.3	61.8	62.1	63.4	63.8	63.8	14.4	10.8	10.1	11.0	11.1	10.9
Germany	54.7	58.7	58.8	58.7	59.2	59.6	60.9	63.8	64.2	64.5	65.8	66.9	10.1	8.0	8.4	8.9	10.1	11.0
Greece	37.1	41.2	43.1	44.5	45.5	46.2	43.2	48.8	51.0	52.1	54.1	54.6	14.0	15.6	15.4	14.5	16.0	15.3
Hungary	47.8	49.8	49.8	50.9	50.7	51.0	52.7	52.4	52.7	53.9	54.0	55.1	9.3	5.0	5.4	5.6	6.1	7.5
Iceland[b]	74.6	81.1	79.8	81.2	79.4	81.2	79.1	83.1	82.2	83.9	81.8	83.5	5.7	2.5	2.9	3.1	3.0	2.7
Ireland	38.9	54.0	55.2	55.4	55.8	58.0	45.8	56.0	57.3	57.6	58.0	60.3	15.2	3.5	3.7	3.9	3.7	3.8
Italy	35.4	41.1	42.0	42.7	45.2	45.3	41.9	47.3	47.9	48.3	50.6	50.4	15.5	13.1	12.3	11.7	10.6	10.1
Japan	56.5	57.0	56.5	56.8	57.4	58.1	58.3	60.1	59.7	60.0	60.1	60.8	3.1	5.1	5.4	5.1	4.7	4.4
Korea	49.8	50.9	52.0	51.1	52.2	52.5	50.8	52.8	53.5	52.9	54.1	54.5	2.0	3.5	2.9	3.5	3.5	3.6
Luxembourg	44.9	50.8	51.5	52.0	51.9	53.7	47.0	52.0	53.5	54.5	55.9	57.0	4.3	2.2	3.6	4.6	7.1	5.9
Mexico	36.2	39.4	39.9	39.4	41.3	41.5	38.1	40.4	41.0	40.5	42.8	43.1	4.9	2.4	2.5	2.7	3.5	3.7
Netherlands	52.6	63.9	64.5	64.9	65.0	..	57.3	66.1	66.9	67.9	68.5	..	8.1	3.3	3.5	4.4	5.1	..
New Zealand	59.9	64.8	65.3	65.7	66.5	68.0	64.9	68.4	69.1	69.2	69.6	70.8	7.7	5.3	5.4	5.1	4.5	4.1
Norway[b]	67.5	73.8	73.9	72.7	72.7	72.0	70.9	76.4	76.6	75.8	75.7	75.4	4.8	3.4	3.7	4.0	3.9	4.4
Poland	51.9	47.8	46.4	46.2	46.4	47.0	62.1	59.9	58.9	58.4	58.2	58.3	16.4	20.2	21.2	20.8	20.2	19.4
Portugal	55.0	61.0	60.8	60.6	61.7	61.7	60.0	64.5	65.0	65.6	67.0	67.9	8.3	5.4	6.5	7.7	8.0	9.2
Slovak Republic	52.6	51.8	51.4	52.2	50.9	50.9	61.3	63.8	63.2	63.5	62.9	61.5	14.1	18.8	18.7	17.8	19.1	17.2
Spain[b]	31.5	43.8	44.9	46.8	49.0	51.9	46.3	51.6	53.7	55.7	57.7	59.1	31.8	15.3	16.4	16.0	15.1	12.2
Sweden[b]	70.7	73.5	73.4	72.8	71.8	..	77.0	77.1	77.1	76.8	76.6	..	8.2	4.7	4.7	5.2	6.2	..
Switzerland	64.9	70.7	71.5	70.7	70.3	70.4	68.2	73.3	73.9	74.1	73.9	74.3	4.4	3.5	3.2	4.6	4.8	5.2
Turkey	30.4	26.3	26.6	25.2	24.3	23.7	33.1	28.5	29.5	28.1	27.0	26.5	8.3	7.8	9.8	10.5	10.0	10.6
United Kingdom[b]	62.1	66.0	66.3	66.4	66.6	66.8	67.1	68.9	69.3	69.2	69.6	69.7	7.4	4.2	4.4	4.1	4.3	4.1
United States[b]	65.2	67.1	66.1	65.7	65.4	65.6	69.4	70.4	70.1	69.7	69.2	69.2	6.1	4.7	5.7	5.7	5.5	5.2
EU-15[c]	49.4	55.1	55.6	56.1	57.1	57.8	56.5	60.3	61.0	61.6	62.8	63.5	12.7	8.7	8.8	9.0	9.1	9.0
EU-19[c]	49.9	54.3	54.6	55.0	55.9	56.5	57.2	60.2	60.7	61.2	62.2	62.8	12.8	9.8	9.9	10.1	10.1	10.0
OECD Europe[c]	48.0	51.2	51.5	51.6	52.1	52.5	54.8	56.5	57.0	57.2	57.9	58.3	12.3	9.5	9.7	9.9	10.0	9.9
Total OECD[c]	52.9	55.4	55.3	55.3	55.8	56.1	57.8	59.4	59.6	59.7	60.1	60.4	8.4	6.8	7.2	7.3	7.2	7.0

a) Ratios refer to persons aged 15 to 64 years who are in employment or in the labour force divided by the working age population, or in unemployment divided by the labour force.

b) Refers to persons aged 16 to 64.

c) Averages for 2005 include estimates for the Netherlands and Sweden, based on annual growth rates of series taken from the European Union Labour Force Survey.

Source: OECD database on Labour Force Statistics (see URLs at the beginning of the Annex). For Belgium, Denmark, Greece and Luxembourg data are from the European Union Labour Force Survey.

Statlink: http://dx.doi.org/10.1787/282807675356

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups**

Both sexes (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Australia	Unemployment rates	17.1	12.9	12.2	11.6	10.8	7.6	5.1	4.8	4.2	3.9	9.5	4.2	3.8	3.6	3.2
	Labour force participation rates	70.7	70.1	70.4	70.6	71.3	79.7	80.9	81.1	80.9	82.0	44.8	50.9	52.5	53.9	55.5
	Employment/population ratios	58.6	61.1	61.8	62.4	63.6	73.6	76.7	77.2	77.4	78.8	40.5	48.7	50.5	52.0	53.7
Austria	Unemployment rates	4.8	5.9	6.5	9.7	10.3	3.4	3.6	3.8	4.2	4.4	3.5	5.5	5.0	3.8	3.6
	Labour force participation rates	62.5	55.4	55.4	57.4	59.2	82.2	86.3	86.9	86.3	86.4	29.5	30.8	31.8	29.9	33.0
	Employment/population ratios	59.5	52.1	51.5	51.9	53.1	79.5	83.2	83.7	82.6	82.6	28.4	29.1	30.1	28.8	31.8
Belgium	Unemployment rates	21.8	15.7	19.0	17.5	19.9	8.4	6.2	7.0	6.6	7.2	4.9	3.5	1.7	3.6	4.4
	Labour force participation rates	35.2	33.8	33.5	34.0	33.2	79.9	81.7	81.8	82.8	84.4	23.5	26.7	28.5	31.3	33.5
	Employment/population ratios	27.5	28.5	27.1	28.1	26.6	73.1	76.6	76.1	77.3	78.3	22.4	25.8	28.1	30.1	32.1
Canada	Unemployment rates	15.9	13.6	13.6	13.4	12.4	9.4	6.6	6.5	6.0	5.8	9.2	6.3	6.3	5.9	5.4
	Labour force participation rates	63.9	66.6	67.4	67.0	65.9	83.3	85.9	86.4	86.5	86.3	48.1	53.4	56.5	57.3	57.9
	Employment/population ratios	53.8	57.5	58.3	58.0	57.8	75.5	80.3	80.8	81.3	81.3	43.6	50.1	53.0	53.9	54.8
Czech Republic	Unemployment rates	8.7	16.0	17.6	20.4	19.3	3.4	6.5	7.0	7.3	7.1	3.5	4.0	4.4	5.4	5.2
	Labour force participation rates	52.0	40.1	38.1	35.8	33.9	89.3	88.2	87.8	87.8	88.3	33.5	42.5	44.2	45.1	47.0
	Employment/population ratios	47.5	33.7	31.4	28.5	27.3	86.3	82.5	81.7	81.4	82.0	32.3	40.8	42.3	42.6	44.6
Denmark	Unemployment rates	10.2	7.1	9.8	7.8	7.9	7.8	3.7	5.0	4.7	4.2	6.5	4.7	3.9	5.6	4.9
	Labour force participation rates	69.1	68.8	65.9	66.4	67.2	87.2	88.0	87.8	88.2	87.7	53.7	60.1	63.1	65.5	62.9
	Employment/population ratios	62.1	64.0	59.4	61.3	62.0	80.5	84.7	83.5	84.0	83.9	50.2	57.3	60.7	61.8	59.8
Finland	Unemployment rates	34.1	20.6	21.6	20.8	19.9	14.1	7.3	7.3	7.3	6.9	19.0	8.1	7.8	7.3	6.8
	Labour force participation rates	42.3	49.9	49.1	47.9	49.2	87.1	88.1	87.3	87.2	87.7	41.3	52.0	53.8	54.8	56.6
	Employment/population ratios	27.9	39.4	38.5	38.1	39.2	74.9	81.6	81.1	81.0	81.7	33.5	47.8	49.9	51.0	52.6
France	Unemployment rates	27.5	20.2	21.5	22.7	22.8	11.2	8.1	8.8	8.8	8.7	7.0	5.8	7.0	7.3	6.8
	Labour force participation rates	30.4	30.2	34.4	34.1	33.7	85.9	86.4	86.7	87.0	87.2	35.9	41.7	43.3	43.8	43.6
	Employment/population ratios	22.0	24.1	27.0	26.4	26.0	76.3	79.4	79.1	79.3	79.6	33.4	39.3	40.3	40.6	40.7
Germany	Unemployment rates	8.2	9.8	10.6	12.6	15.2	8.1	8.1	9.1	9.7	10.4	11.6	10.8	9.7	12.5	12.7
	Labour force participation rates	56.0	49.7	47.4	48.0	50.2	82.9	85.8	86.0	86.5	86.4	40.6	43.3	43.1	47.8	52.1
	Employment/population ratios	51.4	44.8	42.4	41.9	42.6	76.2	78.8	78.2	78.1	77.4	35.9	38.6	39.0	41.8	45.5
Greece	Unemployment rates	27.7	26.1	25.7	26.5	25.3	7.0	8.7	8.3	9.1	8.9	3.1	3.8	3.1	4.3	3.4
	Labour force participation rates	36.9	36.3	35.2	37.3	33.9	73.7	78.8	79.7	81.1	81.6	40.7	40.5	42.4	41.2	43.1
	Employment/population ratios	26.7	26.8	26.2	27.4	25.3	68.6	71.9	73.1	73.7	74.3	39.5	38.9	41.0	39.4	41.6
Hungary	Unemployment rates	20.9	12.6	13.4	15.5	19.4	9.2	5.2	5.3	5.5	6.4	7.0	3.1	2.8	3.1	3.9
	Labour force participation rates	39.0	32.6	30.8	27.9	27.1	79.1	77.0	77.8	77.9	78.8	18.3	26.4	29.8	32.0	34.3
	Employment/population ratios	30.8	28.5	26.7	23.6	21.8	71.7	73.0	73.7	73.6	73.7	17.0	25.6	29.0	31.1	33.0

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Both sexes (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Iceland[a]	Unemployment rates	11.5	7.2	8.2	8.1	7.2	4.2	2.7	2.5	2.0	1.7	3.8	1.4	2.1	2.7	1.5
	Labour force participation rates	58.5	64.0	74.2	72.1	77.1	91.3	92.5	91.5	89.8	89.7	88.1	88.4	85.1	84.3	86.1
	Employment/population ratios	51.7	59.4	68.1	66.3	71.6	87.5	90.0	89.2	88.0	88.2	84.7	87.2	83.3	82.0	84.8
Ireland	Unemployment rates	24.2	7.7	7.6	8.1	8.3	13.4	3.7	3.9	3.9	3.7	8.5	2.4	2.4	2.4	2.9
	Labour force participation rates	44.2	49.1	49.6	48.8	50.5	72.4	79.5	79.1	79.8	81.0	43.2	49.2	50.5	50.7	53.2
	Employment/population ratios	33.5	45.3	45.8	44.8	46.3	62.7	76.6	76.0	76.7	78.0	39.5	48.0	49.3	49.5	51.7
Italy	Unemployment rates	30.5	26.3	26.3	23.5	24.0	8.2	7.5	7.2	6.9	6.7	3.4	4.1	3.8	4.1	3.5
	Labour force participation rates	40.7	36.3	35.3	35.6	33.5	71.7	75.8	76.3	77.5	77.4	30.4	30.1	31.5	31.8	32.6
	Employment/population ratios	28.3	26.7	26.0	27.2	25.5	65.8	70.1	70.8	72.1	72.2	29.4	28.9	30.3	30.5	31.4
Japan	Unemployment rates	5.5	10.1	10.1	9.5	8.7	2.4	4.9	4.7	4.4	4.2	3.5	5.8	5.5	4.4	4.1
	Labour force participation rates	47.6	45.4	44.9	44.2	44.6	81.4	82.0	82.2	82.2	82.5	66.1	65.5	65.9	66.0	66.6
	Employment/population ratios	45.0	41.0	40.3	40.0	40.9	79.5	78.0	78.3	78.6	79.0	63.7	61.6	62.1	63.0	63.9
Korea	Unemployment rates	7.2	8.5	10.1	10.5	10.2	1.9	3.0	3.1	3.2	3.4	0.6	1.7	2.1	2.2	2.5
	Labour force participation rates	37.2	34.4	34.2	34.8	33.3	75.1	75.7	75.4	75.9	76.0	63.3	60.5	59.0	59.8	60.2
	Employment/population ratios	34.5	31.5	30.8	31.2	29.9	73.6	73.4	73.1	73.4	73.4	62.9	59.5	57.8	58.5	58.7
Luxembourg	Unemployment rates	7.9	7.0	11.5	17.0	13.7	3.0	2.4	3.2	4.4	3.9	0.7	0.2	1.2	1.5	2.1
	Labour force participation rates	46.5	34.7	29.9	28.2	29.0	75.8	81.0	81.4	83.0	83.9	23.3	27.9	30.4	30.4	32.4
	Employment/population ratios	42.8	32.3	26.4	23.4	25.0	73.5	79.1	78.8	79.3	80.6	23.2	27.9	30.0	30.0	31.7
Mexico	Unemployment rates	7.1	4.9	5.3	6.4	6.6	3.3	1.8	1.9	2.3	2.8	2.0	1.3	1.0	1.2	2.0
	Labour force participation rates	54.1	48.4	47.2	48.3	46.8	67.2	69.6	69.5	71.3	70.7	53.5	53.8	54.4	55.7	53.6
	Employment/population ratios	50.3	46.0	44.7	45.2	43.7	65.0	68.4	68.1	69.6	68.7	52.4	53.1	53.8	55.0	52.5
Netherlands	Unemployment rates	10.2	5.9	7.8	9.0	..	6.3	2.6	3.6	4.3	..	3.5	1.9	3.0	4.0	..
	Labour force participation rates	61.7	71.2	71.0	70.0	..	78.7	84.2	85.2	85.2	..	30.0	43.9	45.0	46.7	..
	Employment/population ratios	55.4	67.0	65.4	63.6	..	73.7	82.0	82.1	81.5	..	29.0	42.9	43.5	44.8	..
New Zealand	Unemployment rates	15.0	11.5	10.2	9.3	9.4	6.6	4.0	3.5	2.9	2.7	4.7	3.2	3.6	2.5	1.9
	Labour force participation rates	66.5	64.0	62.8	62.6	62.8	81.5	83.0	82.7	83.2	84.2	49.7	65.5	66.7	68.9	71.0
	Employment/population ratios	56.5	56.6	56.3	56.8	56.9	76.2	79.6	79.8	80.8	82.0	47.3	63.4	64.3	67.2	69.7
Norway[a]	Unemployment rates	12.6	11.4	11.7	11.7	12.0	4.5	3.0	3.8	3.8	4.0	2.6	1.8	1.4	1.1	1.7
	Labour force participation rates	55.4	64.4	62.6	61.6	60.2	85.1	87.1	86.2	86.5	86.6	63.3	69.3	69.5	68.8	68.8
	Employment/population ratios	48.4	56.9	55.3	54.4	52.9	81.3	84.4	82.9	83.1	83.2	61.6	68.4	68.6	68.0	67.6
Poland	Unemployment rates	32.6	43.9	43.0	40.8	37.8	12.8	17.5	17.3	16.9	16.0	7.0	10.5	11.3	11.6	11.2
	Labour force participation rates	41.5	35.6	34.4	33.9	33.5	84.7	81.8	81.7	82.2	82.8	37.0	31.2	32.2	31.7	32.8
	Employment/population ratios	28.0	20.0	19.6	20.0	20.9	73.8	67.5	67.6	68.3	69.5	34.4	27.9	28.6	28.0	29.1

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Both sexes (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Portugal	Unemployment rates	14.1	11.5	14.6	15.3	16.1	6.0	4.5	5.7	6.1	7.3	4.0	3.7	4.3	5.6	6.2
	Labour force participation rates	47.2	47.3	45.0	43.6	43.0	83.8	85.4	85.9	86.3	87.1	47.9	52.9	53.4	53.2	53.8
	Employment/population ratios	40.5	41.9	38.4	36.9	36.1	78.7	81.5	81.0	81.1	80.8	45.9	50.9	51.1	50.3	50.5
Slovak Republic	Unemployment rates	27.3	37.4	33.1	32.7	29.9	11.0	15.3	15.1	16.0	14.4	9.0	15.4	13.6	15.4	13.2
	Labour force participation rates	47.4	43.5	41.2	39.4	36.5	88.0	88.6	89.5	88.9	87.9	23.5	26.9	28.5	31.7	35.0
	Employment/population ratios	34.4	27.2	27.6	26.5	25.6	78.4	75.1	76.0	74.7	75.3	21.3	22.9	24.6	26.8	30.4
Spain[a]	Unemployment rates	42.9	22.2	22.7	22.0	19.7	20.9	10.2	10.2	9.8	8.0	12.4	7.1	6.9	7.1	6.1
	Labour force participation rates	49.4	47.0	47.6	49.2	52.1	73.9	78.1	79.4	80.6	80.9	37.3	42.7	43.8	44.4	45.9
	Employment/population ratios	28.3	36.6	36.8	38.4	41.9	58.4	70.1	71.3	72.7	74.4	32.7	39.7	40.8	41.3	43.1
Sweden[a]	Unemployment rates	22.6	12.9	13.8	17.0	..	8.1	4.2	4.9	5.5	..	6.9	4.7	4.8	4.9	..
	Labour force participation rates	53.6	53.2	52.3	51.5	..	89.2	87.9	87.8	87.7	..	66.5	71.7	72.5	73.1	..
	Employment/population ratios	41.3	46.5	45.1	42.8	..	81.9	84.2	83.5	82.9	..	61.9	68.4	69.0	69.5	..
Switzerland	Unemployment rates	5.7	5.6	8.5	7.7	8.8	3.6	2.7	3.7	4.0	3.8	4.0	2.0	2.5	3.2	3.8
	Labour force participation rates	64.1	69.3	69.4	67.1	65.7	86.4	88.3	88.1	88.2	88.5	63.9	65.9	67.4	67.3	67.5
	Employment/population ratios	60.3	65.4	63.5	62.0	59.9	83.2	86.0	84.8	84.7	85.1	61.1	64.6	65.7	65.1	65.0
Turkey	Unemployment rates	16.0	19.2	20.5	19.7	19.3	6.2	8.7	8.7	8.7	8.7	2.3	3.5	3.7	3.1	3.4
	Labour force participation rates	51.1	40.9	38.4	39.3	38.7	63.7	59.8	59.1	59.2	59.3	41.8	36.6	34.0	34.1	31.9
	Employment/population ratios	43.0	33.0	30.5	31.6	31.2	59.8	54.6	54.0	54.1	54.1	40.8	35.3	32.7	33.1	30.8
United Kingdom[a]	Unemployment rates	16.1	11.0	11.5	10.9	11.8	8.2	4.1	3.7	3.6	3.5	9.1	3.4	3.3	3.1	2.7
	Labour force participation rates	70.1	68.5	67.4	67.4	65.9	83.4	83.8	83.8	83.8	84.1	52.1	55.0	57.3	58.0	58.4
	Employment/population ratios	58.8	60.9	59.7	60.1	58.1	76.5	80.3	80.7	80.7	81.1	47.4	53.1	55.4	56.2	56.8
United States[a]	Unemployment rates	12.5	12.0	12.4	11.8	11.3	5.0	4.8	5.0	4.6	4.1	4.1	3.9	4.1	3.8	3.3
	Labour force participation rates	66.4	63.3	61.6	61.1	60.8	83.4	83.3	83.0	82.8	82.8	56.8	61.9	62.4	62.3	62.9
	Employment/population ratios	58.1	55.7	53.9	53.9	53.9	79.2	79.3	78.8	79.0	79.3	54.4	59.5	59.9	59.9	60.8
EU-15[b]	Unemployment rates	20.8	14.8	15.7	15.8	16.5	9.7	6.9	7.3	7.4	7.3	8.4	6.2	5.9	6.4	6.1
	Labour force participation rates	49.2	47.2	47.1	47.4	47.6	80.5	82.8	83.2	84.0	84.3	39.4	43.4	44.6	45.3	46.7
	Employment/population ratios	39.0	40.2	39.7	39.9	39.7	72.7	77.1	77.1	77.8	78.2	36.1	40.7	41.9	42.4	43.9
EU-19[b]	Unemployment rates	21.4	17.6	18.2	18.1	18.5	9.8	7.9	8.2	8.2	8.1	8.2	6.4	6.1	6.7	6.4
	Labour force participation rates	48.3	45.3	45.0	45.1	45.1	81.1	82.8	83.2	83.8	84.2	38.4	41.9	43.2	43.8	45.3
	Employment/population ratios	38.0	37.4	36.8	36.9	36.8	73.1	76.2	76.3	76.9	77.4	35.3	39.3	40.5	40.9	42.4
OECD Europe[b]	Unemployment rates	20.1	17.6	18.3	18.1	18.3	9.3	7.9	8.1	8.2	8.0	7.6	6.0	5.8	6.3	6.1
	Labour force participation rates	49.1	45.0	44.2	44.4	44.3	79.4	80.1	80.2	80.7	81.0	39.2	42.1	43.1	43.7	44.8
	Employment/population ratios	39.2	37.1	36.1	36.4	36.2	72.0	73.8	73.7	74.1	74.5	36.2	39.6	40.6	40.9	42.1
Total OECD[b]	Unemployment rates	14.3	13.2	13.7	13.4	13.3	6.7	6.0	6.2	6.0	5.9	5.4	4.9	4.9	4.7	4.5
	Labour force participation rates	53.3	50.4	49.5	49.7	49.4	79.8	80.3	80.3	80.6	80.7	48.7	52.0	52.8	53.4	54.2
	Employment/population ratios	45.7	43.7	42.7	43.0	42.8	74.5	75.5	75.3	75.7	76.0	46.1	49.4	50.3	50.8	51.8

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Men (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Australia	Unemployment rates	17.7	13.9	12.8	12.0	11.1	7.8	5.1	4.7	4.1	3.7	11.4	5.0	4.2	4.0	3.6
	Labour force participation rates	73.0	71.8	71.7	71.7	72.5	91.6	90.2	89.9	89.9	90.3	61.7	62.3	63.7	64.9	66.3
	Employment/population ratios	60.1	61.8	62.5	63.1	64.4	84.4	85.6	85.7	86.2	87.0	54.7	59.2	61.0	62.3	63.9
Austria	Unemployment rates	4.5	6.1	6.6	9.3	10.7	3.0	3.5	3.8	3.8	4.0	3.9	6.1	5.6	4.2	4.1
	Labour force participation rates	65.6	60.7	61.2	61.7	63.6	92.4	93.6	93.9	92.9	92.8	41.3	42.1	42.8	40.6	43.0
	Employment/population ratios	62.6	57.0	56.8	56.0	56.8	89.6	90.3	90.5	89.4	89.1	39.7	39.5	40.2	38.9	41.3
Belgium	Unemployment rates	20.5	16.0	20.1	15.8	20.6	6.4	5.4	6.6	6.0	6.3	4.5	3.3	1.8	4.1	4.4
	Labour force participation rates	37.3	37.3	38.1	35.8	34.8	92.1	91.2	90.4	91.1	91.8	34.5	36.3	39.4	41.0	43.2
	Employment/population ratios	29.7	31.3	30.4	30.2	27.6	86.2	86.2	84.4	85.7	86.0	33.0	35.1	38.7	39.3	41.3
Canada	Unemployment rates	17.9	15.3	15.3	14.9	14.2	9.6	6.8	6.6	6.1	5.8	9.7	6.6	6.8	6.1	5.4
	Labour force participation rates	65.9	67.8	68.3	67.8	66.1	91.2	91.5	91.6	91.6	91.5	59.5	63.1	65.3	66.0	66.7
	Employment/population ratios	54.1	57.4	57.9	57.7	56.7	82.5	85.2	85.6	86.0	86.1	53.7	59.0	60.9	62.0	63.1
Czech Republic	Unemployment rates	7.9	15.1	16.6	21.1	19.4	2.5	4.9	5.0	5.6	5.3	3.5	3.5	4.0	4.9	4.5
	Labour force participation rates	59.9	44.8	42.1	40.0	38.7	95.3	94.9	94.4	94.6	94.8	49.0	59.4	59.9	60.1	62.2
	Employment/population ratios	55.2	38.0	35.1	31.6	31.2	92.9	90.2	89.7	89.2	89.8	47.3	57.3	57.5	57.2	59.4
Denmark	Unemployment rates	10.2	8.8	10.6	8.5	6.1	6.7	3.3	4.4	4.4	3.7	6.3	5.0	4.0	5.5	4.8
	Labour force participation rates	72.1	70.6	68.1	69.0	70.6	91.9	91.7	92.0	91.3	91.1	63.8	67.6	70.8	73.3	70.2
	Employment/population ratios	64.8	64.4	60.9	63.1	66.3	85.7	88.7	88.0	87.3	87.7	59.8	64.2	68.0	69.3	66.8
Finland	Unemployment rates	37.1	20.9	21.7	22.3	20.6	15.5	7.4	7.5	7.0	6.5	20.4	8.1	8.0	7.6	7.1
	Labour force participation rates	43.5	48.8	48.5	47.1	47.9	90.2	90.6	89.9	89.9	90.3	43.9	53.0	55.2	55.4	56.8
	Employment/population ratios	27.3	38.6	38.0	36.9	38.0	76.2	84.0	83.3	83.7	84.4	35.0	48.3	51.4	51.5	52.5
France	Unemployment rates	24.1	18.2	20.5	21.6	21.4	9.6	7.0	7.5	7.6	7.7	7.2	6.0	7.0	7.2	7.1
	Labour force participation rates	33.2	33.8	38.3	37.8	37.3	95.1	93.9	93.8	93.7	93.8	42.1	47.0	48.2	47.9	47.1
	Employment/population ratios	25.2	27.6	30.4	29.7	29.3	85.9	87.4	86.7	86.6	86.6	39.1	44.2	44.9	44.5	43.8
Germany	Unemployment rates	8.2	11.4	12.4	14.2	16.1	6.5	8.2	9.4	9.9	10.6	10.5	10.3	9.4	12.3	12.6
	Labour force participation rates	58.8	52.4	49.9	50.8	53.5	92.9	93.3	93.0	93.0	93.6	53.1	52.7	52.0	57.8	61.3
	Employment/population ratios	53.9	46.4	43.8	43.7	44.9	86.8	85.6	84.2	83.9	83.7	47.5	47.2	47.1	50.7	53.6
Greece	Unemployment rates	19.8	19.0	18.0	18.8	17.5	4.8	5.4	5.2	5.4	5.2	3.3	3.5	3.0	3.9	3.1
	Labour force participation rates	41.8	39.6	38.9	40.5	37.1	94.5	94.3	94.2	94.7	94.7	60.1	57.3	60.1	58.7	60.7
	Employment/population ratios	33.5	32.1	31.9	32.9	30.6	90.0	89.1	89.3	89.6	89.8	58.1	55.3	58.3	56.4	58.8
Hungary	Unemployment rates	24.6	13.2	13.8	16.2	19.7	10.2	5.4	5.5	5.3	6.1	6.8	3.9	2.9	3.2	4.3
	Labour force participation rates	42.7	36.0	34.4	31.4	30.3	86.9	84.3	84.8	85.0	85.5	28.4	36.9	39.0	39.7	42.4
	Employment/population ratios	32.2	31.2	29.7	26.3	24.4	78.0	79.7	80.1	80.5	80.3	26.5	35.4	37.9	38.4	40.6

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Men (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Iceland[a]	Unemployment rates	13.0	9.7	9.4	9.3	8.5	3.5	2.5	2.4	1.9	1.6	3.8	1.7	2.9	2.9	0.9
	Labour force participation rates	57.9	65.4	75.6	71.8	75.2	96.1	96.6	94.8	94.2	94.3	95.9	91.5	90.2	89.7	90.1
	Employment/population ratios	50.4	59.0	68.5	65.1	68.8	92.7	94.2	92.5	92.4	92.8	92.3	89.9	87.6	87.1	89.3
Ireland	Unemployment rates	25.4	8.7	8.6	8.7	9.1	13.4	4.1	4.4	4.5	4.0	8.6	2.5	2.6	2.9	3.1
	Labour force participation rates	48.7	53.1	53.5	52.8	53.3	91.3	91.3	90.9	91.7	92.2	64.9	66.8	66.5	66.6	67.8
	Employment/population ratios	36.3	48.5	48.8	48.2	48.5	79.0	87.6	87.0	87.6	88.5	59.3	65.1	64.8	64.7	65.7
Italy	Unemployment rates	26.3	22.6	23.0	20.7	21.5	6.1	5.6	5.4	5.2	5.1	3.4	4.0	3.6	4.1	3.6
	Labour force participation rates	46.9	41.4	40.5	39.3	38.1	90.8	91.0	91.5	91.3	91.2	48.1	42.9	44.4	44.0	44.3
	Employment/population ratios	34.5	32.0	31.2	31.2	29.9	85.3	86.0	86.5	86.5	86.6	46.5	41.2	42.8	42.2	42.7
Japan	Unemployment rates	5.6	11.4	11.6	10.6	9.9	2.0	4.7	4.6	4.3	4.0	4.5	7.1	6.7	5.3	5.0
	Labour force participation rates	48.0	46.0	45.2	44.0	44.2	97.5	96.5	96.4	96.2	96.0	85.0	82.9	83.0	82.6	83.1
	Employment/population ratios	45.4	41.0	40.0	39.4	40.1	95.5	92.0	92.0	92.1	92.1	81.2	76.8	77.4	78.1	78.9
Korea	Unemployment rates	9.2	10.3	11.8	12.2	12.2	2.5	3.4	3.4	3.6	3.7	0.9	2.3	2.6	2.7	3.1
	Labour force participation rates	31.8	28.6	28.1	28.8	26.7	94.6	91.9	92.0	91.7	91.3	79.2	73.9	72.8	73.6	74.5
	Employment/population ratios	28.9	25.6	24.8	25.3	23.5	92.3	88.7	88.9	88.4	87.9	78.5	72.2	70.9	71.6	72.2
Luxembourg	Unemployment rates	8.5	5.3	10.7	12.1	11.7	2.5	1.8	2.6	3.3	2.9	0.4	0.3	0.8	1.2	2.9
	Labour force participation rates	47.9	38.2	30.3	29.7	32.4	94.9	95.0	94.5	95.3	95.5	33.6	37.7	39.4	38.4	39.4
	Employment/population ratios	43.8	36.1	27.1	26.2	28.6	92.6	93.3	92.0	92.2	92.8	33.5	37.6	39.1	38.0	38.3
Mexico	Unemployment rates	6.5	4.5	4.9	5.6	6.1	3.2	1.8	2.0	2.3	2.8	2.1	1.7	1.2	1.3	2.5
	Labour force participation rates	72.6	64.4	63.0	64.7	61.4	96.1	96.2	96.2	96.4	95.1	82.4	81.1	81.0	81.5	79.3
	Employment/population ratios	67.9	61.5	59.9	61.0	57.6	93.0	94.5	94.3	94.3	92.5	80.7	79.7	80.0	80.5	77.4
Netherlands	Unemployment rates	10.9	6.3	7.9	9.4	..	5.2	2.2	3.6	4.2	..	2.7	2.0	2.8	4.3	..
	Labour force participation rates	62.6	72.1	72.3	70.6	..	92.3	93.3	93.4	92.8	..	41.8	57.1	57.9	58.8	..
	Employment/population ratios	55.8	67.6	66.5	63.8	..	87.5	91.2	90.1	88.9	..	40.7	56.0	56.1	56.3	..
New Zealand	Unemployment rates	15.6	11.6	10.1	8.7	9.1	7.0	3.8	3.2	2.5	2.4	5.4	3.2	3.4	2.4	1.8
	Labour force participation rates	70.3	66.8	65.5	65.9	65.6	92.3	91.5	91.0	91.6	92.4	62.8	77.3	76.2	78.2	79.7
	Employment/population ratios	59.4	59.1	58.8	60.1	59.6	85.8	88.0	88.1	89.4	90.3	59.4	74.8	73.6	76.4	78.3
Norway[a]	Unemployment rates	13.1	12.3	12.7	12.6	12.5	5.0	3.2	4.3	4.3	4.2	3.1	1.6	1.6	1.5	2.1
	Labour force participation rates	57.8	65.1	63.2	61.9	61.0	90.6	91.1	89.9	90.1	90.1	71.5	74.0	74.7	74.3	74.6
	Employment/population ratios	50.2	56.6	55.2	54.1	53.3	86.0	88.1	86.0	86.2	86.3	69.3	72.8	73.5	73.2	73.1
Poland	Unemployment rates	30.8	43.5	42.0	39.0	36.7	11.3	16.5	16.5	16.0	14.5	7.5	11.2	12.0	12.9	12.6
	Labour force participation rates	45.2	39.1	38.2	37.7	37.2	90.9	87.6	87.4	88.0	88.9	46.7	40.3	41.7	41.3	43.3
	Employment/population ratios	31.3	22.1	22.1	23.0	23.6	80.6	73.1	73.0	74.0	76.0	43.2	35.8	36.8	36.0	37.9

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Men (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Portugal	Unemployment rates	12.3	9.7	12.6	13.5	13.7	5.0	3.5	4.9	5.1	6.2	5.0	3.7	4.8	6.0	6.9
	Labour force participation rates	51.6	52.3	48.5	47.6	46.9	93.7	92.6	92.5	92.2	92.4	63.7	63.5	64.7	62.8	62.4
	Employment/population ratios	45.2	47.2	42.4	41.2	40.5	88.9	89.4	88.0	87.4	86.7	60.4	61.2	61.6	59.1	58.1
Slovak Republic	Unemployment rates	28.0	38.9	34.3	34.2	30.8	10.4	14.9	14.5	14.6	13.2	8.1	15.6	14.7	15.6	13.0
	Labour force participation rates	52.7	47.7	45.2	43.1	40.6	94.9	93.4	94.1	93.7	93.8	40.9	46.3	48.1	51.9	55.0
	Employment/population ratios	38.0	29.2	29.7	28.4	28.1	85.1	79.5	80.5	80.0	81.4	37.6	39.1	41.0	43.8	47.9
Spain[a]	Unemployment rates	37.4	18.4	19.4	18.7	16.7	16.4	6.8	6.9	6.9	5.9	13.3	5.9	5.8	6.0	5.4
	Labour force participation rates	55.0	52.4	53.1	54.8	57.2	93.1	92.1	92.4	92.5	92.4	56.6	62.2	62.9	62.7	63.2
	Employment/population ratios	34.4	42.8	42.8	44.5	47.7	77.8	85.8	86.0	86.1	86.9	49.1	58.6	59.3	58.9	59.7
Sweden[a]	Unemployment rates	25.2	13.9	14.7	17.8	..	9.3	4.6	5.3	5.7	..	8.5	5.3	5.8	5.8	..
	Labour force participation rates	53.7	52.9	52.0	51.4	..	91.3	90.0	90.1	90.1	..	70.5	74.8	75.4	76.0	..
	Employment/population ratios	40.0	45.8	44.3	42.2	..	82.8	86.0	85.3	85.0	..	64.5	70.8	71.1	71.6	..
Switzerland	Unemployment rates	5.4	7.2	8.3	8.0	8.5	3.1	2.2	3.4	3.5	3.1	4.6	2.1	2.5	3.1	3.9
	Labour force participation rates	63.4	70.4	70.5	68.2	66.6	98.2	96.0	95.6	95.7	95.6	82.9	78.9	79.7	79.1	77.8
	Employment/population ratios	59.8	65.4	64.7	62.7	60.9	95.2	93.9	92.4	92.3	92.6	79.1	77.3	77.7	76.7	74.8
Turkey	Unemployment rates	17.5	20.3	21.5	20.1	19.3	6.2	9.0	8.9	9.0	8.9	3.0	4.6	5.0	4.1	4.5
	Labour force participation rates	67.2	53.3	50.6	53.1	52.9	93.7	88.2	87.7	89.2	89.4	59.5	50.8	47.1	49.0	47.3
	Employment/population ratios	55.5	42.4	39.7	42.5	42.7	87.9	80.2	79.9	81.1	81.4	57.7	48.5	44.7	47.0	45.3
United Kingdom[a]	Unemployment rates	19.2	13.0	13.3	11.8	13.4	9.7	4.4	4.1	3.8	3.6	11.6	4.3	4.3	3.9	3.4
	Labour force participation rates	75.1	72.0	70.9	70.2	69.0	92.9	91.2	91.4	91.0	91.0	64.0	64.9	67.8	68.0	68.1
	Employment/population ratios	60.7	62.7	61.4	61.9	59.7	83.9	87.2	87.6	87.5	87.6	56.6	62.0	64.9	65.4	65.7
United States[a]	Unemployment rates	13.2	12.8	13.4	12.6	12.4	4.9	4.8	5.2	4.6	3.9	4.4	4.3	4.5	3.9	3.3
	Labour force participation rates	70.3	65.5	63.9	63.6	62.9	91.7	91.0	90.6	90.5	90.5	65.5	69.2	68.7	68.7	69.3
	Employment/population ratios	61.0	57.1	55.3	55.5	55.2	87.2	86.6	85.9	86.3	86.9	62.6	66.3	65.6	66.0	67.0
EU-15[b]	Unemployment rates	19.8	14.5	15.6	15.4	16.2	8.5	6.0	6.5	6.5	6.5	8.7	6.1	5.9	6.4	6.2
	Labour force participation rates	53.2	50.8	50.7	51.0	51.2	92.8	92.4	92.4	92.4	92.6	52.5	54.0	55.1	55.7	56.6
	Employment/population ratios	42.6	43.4	42.7	43.1	43.0	85.0	86.8	86.4	86.3	86.6	47.9	50.7	51.8	52.1	53.1
EU-19[b]	Unemployment rates	20.5	17.3	18.1	17.8	18.1	8.6	7.0	7.4	7.4	7.2	8.5	6.3	6.2	6.8	6.6
	Labour force participation rates	52.4	49.0	48.6	48.7	48.8	92.6	91.9	91.9	91.9	92.2	51.3	52.7	53.9	54.4	55.5
	Employment/population ratios	41.7	40.5	39.8	40.0	39.9	84.6	85.4	85.1	85.1	85.6	47.0	49.4	50.6	50.7	51.8
OECD Europe[b]	Unemployment rates	19.6	17.7	18.5	18.0	18.1	8.2	7.1	7.5	7.5	7.3	7.9	6.0	5.9	6.4	6.3
	Labour force participation rates	55.0	50.1	49.4	49.9	49.9	92.8	91.5	91.4	91.6	91.9	52.5	53.2	54.0	54.6	55.4
	Employment/population ratios	44.3	41.3	40.2	40.9	40.8	85.1	84.9	84.6	84.7	85.2	48.4	50.0	50.8	51.1	51.9
Total OECD[b]	Unemployment rates	14.4	13.5	14.1	13.6	13.7	6.1	5.6	5.9	5.7	5.5	5.9	5.4	5.3	5.0	4.8
	Labour force participation rates	59.0	55.1	54.2	54.6	54.0	93.3	92.3	92.1	92.1	92.1	62.7	64.0	64.4	64.8	65.5
	Employment/population ratios	50.5	47.7	46.6	47.2	46.7	87.6	87.1	86.7	86.9	87.1	59.0	60.5	61.0	61.6	62.3

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Women (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Australia	Unemployment rates	16.4	11.9	11.6	11.1	10.5	7.3	5.1	5.0	4.4	4.2	5.5	2.8	3.1	2.9	2.6
	Labour force participation rates	68.3	68.5	69.1	69.4	70.0	67.7	71.6	72.5	71.9	73.8	27.7	39.2	41.2	42.8	44.6
	Employment/population ratios	57.1	60.3	61.1	61.6	62.7	62.8	68.0	68.9	68.8	70.7	26.2	38.1	39.9	41.5	43.4
Austria	Unemployment rates	5.2	5.7	6.4	10.1	9.9	3.8	3.6	3.8	4.8	4.9	2.7	4.1	3.8	3.0	2.7
	Labour force participation rates	59.3	49.9	49.4	53.2	54.8	71.7	78.9	79.9	79.6	79.9	18.5	20.1	21.5	19.9	23.5
	Employment/population ratios	56.2	47.0	46.0	47.8	49.4	68.9	76.0	76.9	75.8	76.0	18.0	19.2	20.7	19.3	22.9
Belgium	Unemployment rates	23.4	15.2	17.5	19.5	19.1	11.2	7.2	7.4	7.4	8.2	5.9	3.8	1.3	2.8	4.2
	Labour force participation rates	33.0	30.2	28.8	32.2	31.5	67.2	72.0	73.1	74.3	76.8	13.2	17.4	18.0	21.8	24.0
	Employment/population ratios	25.3	25.7	23.8	25.9	25.5	59.7	66.8	67.7	68.8	70.5	12.4	16.7	17.7	21.2	23.0
Canada	Unemployment rates	13.7	11.7	11.8	11.7	10.6	9.0	6.2	6.3	5.9	5.7	8.4	5.8	5.6	5.7	5.3
	Labour force participation rates	61.9	65.3	66.5	66.2	65.8	75.4	80.4	81.1	81.5	81.1	36.9	43.9	47.9	48.8	49.4
	Employment/population ratios	53.4	57.6	58.6	58.4	58.8	68.6	75.4	75.9	76.7	76.5	33.8	41.4	45.3	46.0	46.8
Czech Republic	Unemployment rates	9.8	17.3	18.8	19.5	19.1	4.4	8.3	9.3	9.3	9.3	3.7	4.9	5.2	6.2	6.3
	Labour force participation rates	43.7	35.3	34.0	31.5	28.8	83.2	81.4	81.0	80.9	81.6	20.0	27.3	30.0	31.3	33.1
	Employment/population ratios	39.4	29.2	27.6	25.4	23.3	79.6	74.6	73.5	73.4	73.9	19.3	26.0	28.4	29.4	31.0
Denmark	Unemployment rates	10.2	5.2	9.0	7.1	9.8	9.0	4.2	5.6	5.1	4.9	6.7	4.2	3.8	5.8	5.1
	Labour force participation rates	65.9	67.0	63.6	63.9	63.9	82.7	84.4	83.6	84.9	84.1	43.1	52.1	55.2	57.6	55.7
	Employment/population ratios	59.1	63.5	57.9	59.4	57.6	75.2	80.8	78.9	80.6	80.0	40.2	49.9	53.1	54.2	52.9
Finland	Unemployment rates	30.7	20.2	21.5	19.4	19.3	12.5	7.3	7.0	7.6	7.3	17.5	8.1	7.6	7.0	6.5
	Labour force participation rates	41.1	51.1	49.7	48.7	50.5	84.0	85.4	84.7	84.5	85.1	38.9	51.1	52.4	54.3	56.4
	Employment/population ratios	28.5	40.1	39.0	39.3	40.4	73.5	79.1	78.8	78.1	79.0	32.1	47.3	48.5	50.4	52.7
France	Unemployment rates	31.7	22.8	22.9	24.2	24.6	13.1	9.4	10.2	10.0	9.9	6.6	5.5	7.0	7.5	6.4
	Labour force participation rates	27.6	26.5	30.4	30.3	29.9	76.7	79.0	79.8	80.3	80.7	30.1	36.6	38.6	39.8	40.2
	Employment/population ratios	18.8	20.4	23.5	23.0	22.6	66.7	71.6	71.7	72.2	72.7	28.1	34.6	35.9	36.8	37.6
Germany	Unemployment rates	8.3	8.0	8.6	10.8	14.0	10.1	8.0	8.8	9.6	10.2	13.5	11.7	10.1	12.7	13.0
	Labour force participation rates	53.0	47.0	44.9	45.0	46.7	72.6	78.1	78.9	79.7	79.1	28.3	34.1	34.3	37.8	43.2
	Employment/population ratios	48.6	43.2	41.1	40.2	40.1	65.3	71.8	72.0	72.1	71.0	24.5	30.1	30.9	33.0	37.6
Greece	Unemployment rates	36.9	34.7	35.2	35.6	34.7	10.7	13.6	12.9	14.4	14.2	2.6	4.5	3.5	5.1	4.0
	Labour force participation rates	32.6	33.0	31.4	34.1	30.6	53.9	63.4	65.1	67.5	68.3	23.0	25.3	26.2	25.3	26.9
	Employment/population ratios	20.6	21.5	20.3	22.0	20.0	48.1	54.8	56.8	57.8	58.6	22.4	24.2	25.3	24.0	25.8
Hungary	Unemployment rates	16.5	11.9	12.9	14.4	19.1	8.1	4.9	5.0	5.6	6.9	7.2	1.9	2.7	2.9	3.5
	Labour force participation rates	35.3	29.2	27.2	24.3	23.8	71.5	69.9	71.0	71.0	72.2	10.2	18.0	22.4	25.8	27.7
	Employment/population ratios	29.5	25.8	23.7	20.8	19.3	65.7	66.5	67.4	67.0	67.2	9.4	17.6	21.8	25.0	26.8

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Women (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Iceland[a]	Unemployment rates	10.1	4.4	7.0	6.8	6.0	5.0	2.9	2.5	2.0	1.8	3.8	1.0	1.3	2.5	2.2
	Labour force participation rates	59.1	62.6	72.8	72.5	79.2	86.3	88.3	88.1	85.3	85.1	80.5	85.3	80.0	78.8	81.9
	Employment/population ratios	53.1	59.8	67.7	67.5	74.5	82.0	85.7	85.9	83.6	83.5	77.4	84.4	78.9	76.9	80.2
Ireland	Unemployment rates	22.5	6.5	6.5	7.4	7.3	13.4	3.2	3.4	3.1	3.1	8.1	2.2	2.0	1.5	2.6
	Labour force participation rates	39.6	44.9	45.7	44.6	47.6	53.6	67.8	67.4	67.9	69.6	21.5	31.4	34.1	34.5	38.4
	Employment/population ratios	30.6	41.9	42.7	41.3	44.1	46.5	65.6	65.1	65.8	67.4	19.7	30.7	33.5	34.0	37.4
Italy	Unemployment rates	36.5	31.4	30.9	27.2	27.4	11.8	10.5	10.0	9.2	9.0	3.4	4.4	4.3	4.0	3.2
	Labour force participation rates	34.4	31.0	29.9	31.7	28.7	52.6	60.3	60.9	63.6	63.6	14.2	18.1	19.3	20.4	21.5
	Employment/population ratios	21.8	21.2	20.6	23.1	20.8	46.3	54.0	54.9	57.8	57.9	13.7	17.3	18.5	19.6	20.8
Japan	Unemployment rates	5.3	8.7	8.6	8.3	7.4	2.8	5.2	4.9	4.5	4.4	1.9	3.6	3.7	3.0	2.7
	Labour force participation rates	47.1	44.8	44.5	44.3	45.0	65.3	67.3	67.8	68.0	68.8	48.1	48.8	49.5	50.1	50.8
	Employment/population ratios	44.6	41.0	40.5	40.6	41.7	63.4	63.9	64.4	65.0	65.7	47.2	47.1	47.5	48.6	49.4
Korea	Unemployment rates	6.0	7.4	9.0	9.4	9.0	1.0	2.2	2.6	2.7	2.9	0.2	0.9	1.3	1.5	1.6
	Labour force participation rates	41.8	39.5	39.6	40.1	39.0	54.8	59.0	58.4	59.6	60.4	49.5	48.0	46.0	46.6	46.5
	Employment/population ratios	39.3	36.5	36.0	36.3	35.5	54.2	57.7	56.8	58.0	58.6	49.4	47.6	45.4	45.9	45.7
Luxembourg	Unemployment rates	7.2	9.0	12.4	22.6	16.2	3.9	3.2	4.0	6.1	5.3	1.2	0.0	2.0	2.0	0.8
	Labour force participation rates	45.0	31.2	29.4	26.6	25.5	55.7	66.7	68.0	70.5	72.2	13.4	18.1	21.3	22.5	25.0
	Employment/population ratios	41.8	28.4	25.7	20.6	21.4	53.5	64.5	65.3	66.2	68.3	13.2	18.1	20.9	22.0	24.8
Mexico	Unemployment rates	8.3	5.6	6.2	7.8	7.4	3.5	1.6	1.8	2.3	2.8	1.7	0.3	0.3	1.0	1.1
	Labour force participation rates	35.8	33.3	31.9	32.7	33.2	41.3	46.5	46.4	49.5	49.9	25.8	29.2	30.1	32.0	30.6
	Employment/population ratios	32.8	31.4	29.9	30.1	30.7	39.8	45.8	45.5	48.3	48.5	25.4	29.1	30.0	31.7	30.3
Netherlands	Unemployment rates	9.4	5.5	7.8	8.6	..	7.8	3.2	3.6	4.5	..	5.2	1.9	3.4	3.4	..
	Labour force participation rates	60.7	70.3	69.6	69.3	..	64.5	75.0	76.7	77.4	..	18.5	30.5	31.9	34.4	..
	Employment/population ratios	55.0	66.4	64.2	63.3	..	59.4	72.6	73.9	74.0	..	17.5	29.7	30.8	33.2	..
New Zealand	Unemployment rates	14.3	11.4	10.4	10.1	9.8	6.0	4.2	3.9	3.3	3.0	3.6	3.3	3.8	2.6	1.9
	Labour force participation rates	62.6	61.0	60.0	59.3	60.0	71.1	74.9	74.9	75.2	76.4	36.7	53.9	57.5	59.7	62.5
	Employment/population ratios	53.7	54.1	53.8	53.3	54.1	66.9	71.7	72.0	72.7	74.1	35.4	52.1	55.3	58.1	61.3
Norway[a]	Unemployment rates	12.1	10.5	10.7	10.7	11.5	3.8	2.8	3.3	3.3	3.8	1.9	1.9	1.2	0.6	1.3
	Labour force participation rates	53.0	63.8	62.0	61.3	59.4	79.4	82.9	82.3	82.8	83.0	55.4	64.5	64.3	63.1	62.9
	Employment/population ratios	46.6	57.1	55.4	54.7	52.5	76.4	80.6	79.6	80.0	79.9	54.3	64.0	63.5	62.7	62.1
Poland	Unemployment rates	34.7	44.4	44.3	43.3	39.2	14.5	18.7	18.3	18.0	17.7	6.4	9.6	10.2	9.5	9.0
	Labour force participation rates	37.9	32.2	30.5	29.9	29.8	78.6	76.1	76.1	76.4	76.7	28.7	23.3	23.9	23.3	23.5
	Employment/population ratios	24.8	17.9	17.0	17.0	18.1	67.2	61.9	62.1	62.7	63.1	26.8	21.1	21.5	21.0	21.4

Table C. **Employment/population ratios, activity and unemployment rates by selected age groups** (*cont.*)

Women (percentages)

		15 to 24					25 to 54					55 to 64				
		1994	2002	2003	2004	2005	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Portugal	Unemployment rates	16.3	13.9	16.9	17.6	19.1	7.2	5.6	6.7	7.1	8.5	2.5	3.7	3.7	5.1	5.3
	Labour force participation rates	42.6	42.2	41.3	39.5	38.8	74.3	78.3	79.6	80.6	81.8	34.2	43.5	43.5	44.8	46.1
	Employment/population ratios	35.7	36.3	34.3	32.5	31.4	69.0	74.0	74.2	74.9	74.9	33.4	41.9	41.8	42.5	43.7
Slovak Republic	Unemployment rates	26.5	35.5	31.6	30.8	28.7	11.6	15.8	15.7	17.5	15.8	12.3	14.5	9.9	15.0	13.7
	Labour force participation rates	41.8	39.2	37.2	35.6	32.3	81.1	83.9	84.8	84.0	82.1	9.2	11.1	12.4	14.8	18.2
	Employment/population ratios	30.7	25.3	25.4	24.6	23.0	71.7	70.6	71.5	69.3	69.2	8.0	9.6	11.2	12.6	15.7
Spain[a]	Unemployment rates	50.1	27.3	27.2	26.4	23.5	28.6	15.1	14.8	13.8	10.9	9.9	9.8	9.3	9.4	7.5
	Labour force participation rates	43.7	41.4	41.9	43.4	46.8	54.6	63.9	66.3	68.3	69.0	19.4	24.4	25.8	27.2	29.6
	Employment/population ratios	21.8	30.1	30.5	32.0	35.8	39.0	54.2	56.5	58.9	61.5	17.5	22.0	23.4	24.6	27.4
Sweden[a]	Unemployment rates	19.9	11.9	12.8	16.1	..	6.8	3.8	4.4	5.2	..	5.2	4.0	3.8	4.0	..
	Labour force participation rates	53.4	53.4	52.7	51.6	..	86.9	85.7	85.4	85.3	..	62.6	68.7	69.5	70.2	..
	Employment/population ratios	42.7	47.3	46.0	43.3	..	81.1	82.4	81.7	80.8	..	59.3	65.9	66.8	67.4	..
Switzerland	Unemployment rates	6.1	3.9	8.7	7.3	9.2	4.2	3.2	4.1	4.6	4.7	3.2	1.9	2.5	3.4	3.6
	Labour force participation rates	64.8	68.1	68.3	66.1	64.9	74.3	80.6	80.5	80.8	81.3	47.5	53.2	55.4	55.8	57.5
	Employment/population ratios	60.8	65.4	62.4	61.2	58.9	70.9	78.0	77.3	77.1	77.5	45.7	52.3	54.0	53.8	55.4
Turkey	Unemployment rates	13.4	17.1	18.9	18.9	19.3	6.0	7.5	8.1	7.5	8.2	0.7	1.2	1.1	0.7	0.5
	Labour force participation rates	35.8	29.0	26.8	26.1	25.1	33.1	30.7	29.8	28.6	28.5	24.7	22.9	21.4	19.8	17.0
	Employment/population ratios	31.0	24.0	21.7	21.1	20.2	31.1	28.4	27.4	26.4	26.2	24.6	22.6	21.2	19.7	16.9
United Kingdom[a]	Unemployment rates	12.6	8.8	9.5	9.9	10.0	6.4	3.8	3.3	3.4	3.3	5.3	2.3	2.0	2.1	1.8
	Labour force participation rates	65.1	64.9	64.0	64.6	62.7	74.1	76.7	76.6	76.8	77.4	40.7	45.6	47.2	48.3	49.1
	Employment/population ratios	56.9	59.2	57.9	58.2	56.5	69.3	73.8	74.1	74.2	74.9	38.5	44.5	46.3	47.3	48.2
United States[a]	Unemployment rates	11.6	11.1	11.4	11.0	10.1	5.0	4.8	4.8	4.6	4.4	3.9	3.5	3.7	3.7	3.3
	Labour force participation rates	62.5	61.1	59.2	58.7	58.6	75.3	75.9	75.6	75.3	75.3	48.9	55.2	56.6	56.3	57.0
	Employment/population ratios	55.3	54.3	52.5	52.2	52.6	71.5	72.3	72.0	71.8	72.0	47.0	53.2	54.5	54.3	55.1
EU-15[b]	Unemployment rates	21.9	15.1	15.9	16.3	17.0	11.4	8.1	8.3	8.4	8.2	7.9	6.3	5.9	6.5	6.0
	Labour force participation rates	45.1	43.5	43.4	43.7	43.8	68.0	73.2	74.0	75.6	76.0	27.0	33.1	34.4	35.2	37.2
	Employment/population ratios	35.2	37.0	36.5	36.6	36.4	60.3	67.3	67.9	69.3	69.8	24.9	31.0	32.4	32.9	35.0
EU-19[b]	Unemployment rates	22.5	17.9	18.4	18.6	18.9	11.4	9.1	9.3	9.3	9.1	7.7	6.4	6.1	6.6	6.2
	Labour force participation rates	44.1	41.7	41.2	41.3	41.3	69.5	73.7	74.4	75.8	76.2	26.4	31.6	33.0	33.7	35.6
	Employment/population ratios	34.2	34.2	33.7	33.6	33.5	61.6	67.0	67.5	68.7	69.2	24.3	29.6	31.0	31.5	33.4
OECD Europe[b]	Unemployment rates	20.8	17.4	18.1	18.3	18.6	10.9	8.8	9.0	9.1	9.0	7.0	5.9	5.7	6.1	5.8
	Labour force participation rates	43.0	39.7	39.0	38.9	38.8	66.0	68.6	69.0	69.9	70.1	26.8	31.6	32.7	33.3	34.7
	Employment/population ratios	34.0	32.8	31.9	31.8	31.5	58.8	62.6	62.7	63.5	63.8	24.9	29.7	30.9	31.3	32.7
Total OECD[b]	Unemployment rates	14.3	12.7	13.2	13.2	12.8	7.5	6.5	6.6	6.5	6.4	4.6	4.2	4.2	4.3	4.0
	Labour force participation rates	47.6	45.6	44.8	44.7	44.8	66.4	68.5	68.6	69.2	69.5	35.7	40.7	41.9	42.5	43.5
	Employment/population ratios	40.8	39.8	38.9	38.8	39.0	61.5	64.1	64.1	64.8	65.1	34.0	39.0	40.1	40.6	41.7

a) Age group 15 to 24 refers to 16 to 24.

b) Averages for 2005 include estimates for the Netherlands and Sweden, based on annual growth rates of series taken from the European Union Labour Force Survey.

Source: OECD database on Labour Force Statistics (see URLs at the beginning of the Annex). For Belgium, Denmark, Greece and Luxembourg, data are from the European Union Labour Force Survey.

Statlink: *http://dx.doi.org/10.1787/560680631576*

Table D. **Employment/population ratios, activity and unemployment rates by educational attainment, 2004***

Persons aged 25-64 (percentages)

		Both sexes			Men			Women		
		Less than upper secondary education	Upper secondary education	Tertiary education	Less than upper secondary education	Upper secondary education	Tertiary education	Less than upper secondary education	Upper secondary education	Tertiary education
Australia	Unemployment rates	6.2	3.9	2.8	6.8	3.4	2.9	5.6	4.9	2.8
	Labour force participation rates	64.6	82.0	85.7	79.5	89.4	92.2	54.0	70.7	80.1
	Employment/population ratios	60.6	78.8	83.3	74.1	86.3	89.5	51.0	67.2	77.8
Austria	Unemployment rates	7.8	3.8	2.9	7.7	3.5	2.6	7.9	4.1	3.5
	Labour force participation rates	56.6	76.7	85.0	69.3	83.3	87.1	49.2	69.9	82.0
	Employment/population ratios	52.2	73.9	82.5	64.0	80.4	84.8	45.3	67.0	79.1
Belgium	Unemployment rates	11.7	6.9	3.9	10.2	5.3	3.7	14.2	8.9	4.0
	Labour force participation rates	55.4	77.7	86.9	68.2	86.1	91.4	42.6	68.8	82.6
	Employment/population ratios	49.4	73.1	84.1	61.7	81.7	87.9	35.8	63.9	79.8
Canada	Unemployment rates	9.9	6.1	4.7	9.7	6.2	4.6	9.8	6.0	4.7
	Labour force participation rates	63.3	80.5	85.8	74.3	87.3	89.8	51.3	74.1	81.9
	Employment/population ratios	57.1	76.7	82.2	67.1	82.2	86.3	46.2	70.6	78.7
Czech Republic	Unemployment rates	23.0	6.4	2.0	24.5	4.9	2.1	22.1	8.3	1.8
	Labour force participation rates	55.0	79.9	88.1	67.8	87.6	94.1	49.3	71.7	80.5
	Employment/population ratios	42.3	74.8	86.4	51.2	83.3	92.1	38.4	65.8	79.0
Denmark	Unemployment rates	7.8	4.8	3.9	7.1	4.3	4.0	8.4	5.5	3.7
	Labour force participation rates	67.2	83.8	89.9	75.9	88.1	91.5	59.7	78.6	88.5
	Employment/population ratios	62.0	79.7	86.5	70.5	84.3	87.9	54.7	74.3	85.2
Finland	Unemployment rates	12.0	8.2	4.7	11.1	8.2	4.1	13.1	8.2	5.2
	Labour force participation rates	64.7	80.8	88.7	67.8	84.4	90.8	61.1	76.8	87.1
	Employment/population ratios	57.0	74.2	84.5	60.2	77.5	87.0	53.1	70.5	82.5
France	Unemployment rates	12.1	7.6	6.2	11.3	5.8	6.2	13.0	9.8	6.3
	Labour force participation rates	67.8	81.5	87.1	76.7	86.5	91.3	59.8	75.9	83.5
	Employment/population ratios	59.6	75.4	81.7	68.0	81.4	85.6	52.0	68.5	78.3
Germany	Unemployment rates	20.5	11.2	5.5	23.8	11.7	5.3	17.1	10.6	5.9
	Labour force participation rates	61.1	78.2	87.5	78.3	84.5	90.4	50.0	72.0	83.3
	Employment/population ratios	48.6	69.5	82.7	59.7	74.6	85.6	41.4	64.3	78.4
Greece	Unemployment rates	8.4	9.7	6.9	5.2	5.7	4.3	14.1	15.4	10.1
	Labour force participation rates	62.0	76.4	88.5	82.6	90.0	92.6	43.0	63.0	83.8
	Employment/population ratios	56.8	69.0	82.4	78.3	84.8	88.6	36.9	53.3	75.3
Hungary	Unemployment rates	10.8	5.0	1.9	12.3	4.6	1.5	9.5	5.4	2.4
	Labour force participation rates	41.4	74.6	84.5	49.3	81.3	89.1	36.0	67.3	80.5
	Employment/population ratios	36.9	70.9	82.7	43.3	77.5	87.8	32.6	63.6	78.7

Table D. **Employment/population ratios, activity and unemployment rates by educational attainment, 2004*** *(cont.)*

Persons aged 25-64 (percentages)

		Both sexes			Men			Women		
		Less than upper secondary education	Upper secondary education	Tertiary education	Less than upper secondary education	Upper secondary education	Tertiary education	Less than upper secondary education	Upper secondary education	Tertiary education
Iceland	Unemployment rates	3.1	2.8	1.0	4.9	2.6	1.8	1.7	3.3	0.3
	Labour force participation rates	83.1	90.3	94.2	90.5	93.9	96.1	77.8	84.7	92.6
	Employment/population ratios	80.5	87.7	93.3	86.1	91.5	94.4	76.4	81.9	92.3
Ireland	Unemployment rates	6.4	3.2	2.1	7.0	3.4	2.1	5.0	3.0	2.1
	Labour force participation rates	61.1	78.2	87.9	79.3	92.1	93.3	39.7	66.0	82.9
	Employment/population ratios	57.2	75.7	86.1	73.7	89.0	91.3	37.7	64.1	81.1
Italy	Unemployment rates	7.8	5.3	4.8	6.1	4.2	3.6	11.3	6.8	6.1
	Labour force participation rates	56.0	77.7	86.5	75.4	87.1	91.2	36.7	68.3	82.1
	Employment/population ratios	51.6	73.5	82.3	70.8	83.5	87.9	32.6	63.7	77.1
Japan	Unemployment rates	6.7	5.4	3.7	8.0	5.5	3.5	4.6	5.3	4.1
	Labour force participation rates	71.3	77.8	82.3	86.1	94.2	96.2	56.0	63.1	67.0
	Employment/population ratios	66.7	73.6	79.2	79.4	88.9	92.8	53.4	59.8	64.3
Korea	Unemployment rates	2.6	3.5	2.9	3.5	3.9	3.0	1.9	2.9	2.8
	Labour force participation rates	68.1	72.5	78.9	82.7	89.0	92.2	59.0	55.5	59.1
	Employment/population ratios	66.4	70.1	76.7	80.0	85.6	89.6	57.9	54.0	57.5
Luxembourg	Unemployment rates	5.0	3.8	3.0	3.5	2.5	2.3	6.9	5.5	4.1
	Labour force participation rates	62.4	71.2	85.7	75.3	85.0	91.6	51.3	58.0	77.7
	Employment/population ratios	59.3	68.5	83.2	72.6	82.9	89.5	47.7	54.9	74.5
Mexico	Unemployment rates	1.9	2.8	3.0	1.9	2.6	3.0	1.8	2.9	3.1
	Labour force participation rates	66.0	65.6	84.8	94.4	93.7	94.0	41.1	57.5	73.6
	Employment/population ratios	64.8	63.8	82.2	92.6	91.2	91.1	40.3	55.9	71.3
Netherlands	Unemployment rates	5.7	3.9	2.8	5.1	3.5	3.0	6.5	4.3	2.5
	Labour force participation rates	62.6	80.8	88.1	79.1	87.3	91.2	49.3	74.0	84.3
	Employment/population ratios	59.0	77.7	85.6	75.1	84.2	88.4	46.1	70.9	82.2
New Zealand	Unemployment rates	4.2	2.4	2.4	3.7	2.0	2.2	4.8	2.9	2.6
	Labour force participation rates	68.0	84.0	86.0	79.9	91.6	92.4	57.7	75.5	81.1
	Employment/population ratios	65.1	82.0	83.9	76.9	89.7	90.3	54.9	73.3	79.0
Norway	Unemployment rates	3.6	3.8	2.4	4.3	4.1	2.7	2.8	3.4	2.2
	Labour force participation rates	64.4	82.0	91.5	73.1	86.3	93.3	55.7	77.2	89.9
	Employment/population ratios	62.1	78.9	89.3	70.0	82.7	90.8	54.1	74.6	87.9
Poland	Unemployment rates	27.8	17.4	6.2	27.3	16.0	5.9	28.3	19.2	6.5
	Labour force participation rates	51.9	74.3	87.8	62.1	81.3	90.8	43.3	66.8	85.4
	Employment/population ratios	37.5	61.3	82.3	45.2	68.3	85.5	31.0	54.0	79.8
Portugal	Unemployment rates	6.4	5.6	4.4	5.5	4.5	4.5	7.5	6.8	4.4
	Labour force participation rates	76.8	85.1	92.1	85.7	87.0	93.0	67.8	83.2	91.5
	Employment/population ratios	71.9	80.3	88.0	81.0	83.1	88.8	62.7	77.5	87.5

Table D. **Employment/population ratios, activity and unemployment rates by educational attainment, 2004*** (*cont.*)

Persons aged 25-64 (percentages)

		Both sexes			Men			Women		
		Less than upper secondary education	Upper secondary education	Tertiary education	Less than upper secondary education	Upper secondary education	Tertiary education	Less than upper secondary education	Upper secondary education	Tertiary education
Slovak Republic	Unemployment rates	47.7	14.6	4.8	50.3	13.4	5.0	45.7	16.1	4.6
	Labour force participation rates	42.0	82.3	87.8	54.8	88.9	92.7	35.6	75.2	83.0
	Employment/population ratios	22.0	70.3	83.6	27.3	77.0	88.2	19.3	63.1	79.1
Spain	Unemployment rates	11.0	9.5	7.3	7.9	6.2	5.2	16.7	13.8	9.6
	Labour force participation rates	64.6	80.7	88.3	83.8	90.3	92.1	45.4	70.8	84.6
	Employment/population ratios	57.5	73.0	81.9	77.1	84.7	87.3	37.8	61.0	76.5
Sweden	Unemployment rates	6.5	5.8	4.3	6.3	6.0	4.9	6.8	5.6	3.7
	Labour force participation rates	71.6	85.7	89.2	77.6	88.4	90.3	63.8	82.7	88.3
	Employment/population ratios	67.0	80.7	85.4	72.7	83.2	85.9	59.4	78.1	85.0
Switzerland	Unemployment rates	7.2	3.7	2.8	6.4	3.5	2.4	7.8	3.8	3.6
	Labour force participation rates	71.2	82.9	92.2	83.5	91.5	95.6	62.8	75.9	85.6
	Employment/population ratios	66.1	79.8	89.7	78.1	88.3	93.3	57.9	73.0	82.5
Turkey	Unemployment rates	8.1	10.1	8.2	8.9	8.8	7.2	5.3	16.9	10.3
	Labour force participation rates	54.6	68.5	81.9	83.4	88.6	87.9	23.9	32.2	70.6
	Employment/population ratios	50.1	61.5	75.2	76.0	80.8	81.6	22.6	26.8	63.4
United Kingdom	Unemployment rates	6.6	3.7	2.2	7.9	3.7	2.6	5.1	3.7	1.9
	Labour force participation rates	56.8	82.4	89.6	65.2	88.1	91.8	49.5	76.7	87.3
	Employment/population ratios	53.0	79.4	88.8	60.1	84.9	89.4	46.9	73.9	85.6
United States	Unemployment rates	10.5	5.6	3.3	9.4	6.2	3.4	12.2	5.0	3.1
	Labour force participation rates	63.1	77.2	84.7	75.2	83.8	90.4	49.6	70.9	79.4
	Employment/population ratios	56.5	72.8	82.0	68.1	78.6	87.3	43.5	67.4	77.0
EU-15	Unemployment rates	9.0	6.2	4.3	8.4	5.2	3.9	10.2	7.5	4.9
	Labour force participation rates	63.1	79.8	88.1	76.0	87.2	91.3	51.2	72.3	84.6
	Employment/population ratios	57.5	74.9	84.4	69.7	82.7	87.7	46.0	67.0	80.5
EU-19	Unemployment rates	12.9	7.2	4.2	12.6	6.2	3.8	13.6	8.5	4.7
	Labour force participation rates	59.8	79.4	87.9	72.3	86.7	91.4	49.1	71.9	84.1
	Employment/population ratios	52.7	73.7	84.2	63.8	81.4	87.9	42.7	65.9	80.3
OECD Europe	Unemployment rates	11.8	6.7	3.9	11.6	5.8	3.6	12.3	7.8	4.3
	Labour force participation rates	61.6	80.1	88.5	73.7	87.2	91.9	51.3	72.9	84.9
	Employment/population ratios	55.0	74.9	85.1	65.8	82.2	88.6	45.4	67.4	81.2
Total OECD	Unemployment rates	10.3	6.2	3.9	10.3	5.5	3.7	10.6	7.3	4.3
	Labour force participation rates	62.5	79.0	87.2	75.9	87.9	91.9	50.7	70.1	82.0
	Employment/population ratios	56.6	74.2	83.9	68.7	83.1	88.6	45.7	65.2	78.5

* At the time this report is sent to print (June 2006), the data in the table are provisional until *Education at a Glance* is printed (September 2006).

Source: OECD (2006), *Education at a Glance - OECD Indicators* , September, Paris.

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Table E. **Incidence and composition of part-time employment**[a]

Percentages

	Part-time employment as a proportion of total employment									
	Men					Women				
	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Australia[b, c]	12.9	16.3	16.5	16.1	15.7	40.1	41.4	42.2	40.8	41.7
Austria	..	3.1	3.2	3.7	4.8	..	26.4	26.1	29.6	29.6
Belgium	4.4	6.0	5.9	6.3	6.2	30.0	32.4	33.4	34.1	33.1
Canada	10.8	11.0	11.1	10.9	10.8	28.8	27.7	27.9	27.2	26.9
Czech Republic	2.1	1.4	1.6	1.5	1.6	5.6	4.9	5.3	5.2	5.5
Denmark	9.8	10.3	10.5	11.6	12.0	26.2	23.0	21.9	24.3	24.9
Finland	6.5	7.5	8.0	8.0	7.9	11.5	14.8	15.0	14.9	14.8
France	5.3	5.2	4.7	4.8	5.3	24.5	24.1	22.7	23.5	23.3
Germany	3.0	5.5	5.9	6.3	7.4	28.0	35.3	36.3	37.0	39.4
Greece	5.0	2.9	2.9	3.0	3.0	13.1	10.0	10.2	10.8	11.1
Hungary	..	1.4	1.8	1.9	1.8	..	4.0	4.8	4.8	5.0
Iceland	9.2	10.2	..	..	..	37.9	31.2	..	..	..
Ireland	6.4	7.1	7.5	6.9	6.8	25.5	33.4	34.3	35.1	34.8
Italy	4.2	4.9	4.9	5.9	5.3	20.6	23.5	23.6	28.8	29.2
Japan[b, d]	11.7	14.0	14.7	14.2	14.2	35.7	41.2	42.2	41.7	42.3
Korea[b]	2.9	5.4	5.3	5.9	6.5	6.8	10.6	11.2	11.9	12.5
Luxembourg	1.9	2.3	1.6	1.9	1.7	25.7	28.1	30.0	29.7	31.1
Mexico	..	7.1	7.0	8.1	..	..	25.6	25.7	27.6	..
Netherlands	11.3	14.7	14.8	15.1	15.3	54.5	58.8	59.7	60.2	60.9
New Zealand	9.0	11.3	10.8	10.7	10.2	36.1	36.1	35.8	35.4	35.3
Norway	7.7	9.2	9.9	10.3	10.0	37.7	33.4	33.4	33.2	32.9
Poland	..	7.5	7.1	7.5	7.1	..	16.7	16.8	17.5	17.4
Portugal	4.9	5.8	5.9	5.8	5.9	15.2	14.5	14.9	14.0	14.4
Slovak Republic	1.3	1.0	1.3	1.3	1.4	4.4	2.3	3.6	4.5	4.1
Spain	2.4	2.5	2.5	2.7	4.2	14.3	16.4	16.8	17.6	22.2
Sweden	7.1	7.5	7.9	8.5	..	24.9	20.6	20.6	20.8	..
Switzerland[c]	6.8	7.8	8.1	8.1	8.0	44.9	45.4	45.8	45.3	45.8
Turkey	5.1	3.9	3.6	3.8	3.2	18.8	13.5	12.3	14.9	13.4
United Kingdom	7.0	9.1	9.8	10.0	10.0	41.2	40.0	40.1	40.4	39.3
United States[e]	8.5	8.0	8.0	8.1	7.8	20.4	18.5	18.8	18.8	18.3
EU-15[f]	5.0	6.1	6.3	6.6	7.0	28.3	30.0	30.1	31.2	32.3
EU-19[f]	4.8	5.9	6.1	6.4	6.7	27.1	27.5	27.6	28.7	29.6
OECD Europe[f]	4.9	5.8	5.9	6.1	6.3	27.0	26.9	27.0	28.2	28.9
Total OECD[f]	5.3	7.1	7.2	7.4	7.4	20.1	24.6	24.8	25.4	25.5

Table E. **Incidence and composition of part-time employment**[a] (*cont.*)

Percentages

	Part-time employment as a proportion of total employment					Women's share in part-time employment				
	1994	2002	2003	2004	2005	1994	2002	2003	2004	2005
Australia[b, c]	24.4	27.5	27.9	27.1	27.3	69.6	67.0	67.2	67.1	68.3
Austria	..	13.6	13.6	15.5	16.2	..	87.6	87.3	86.9	83.8
Belgium	14.6	17.2	17.7	18.3	18.1	81.8	80.1	81.0	80.6	80.8
Canada	18.9	18.8	18.9	18.5	18.3	68.9	68.8	68.8	68.8	68.6
Czech Republic	3.6	2.9	3.2	3.1	3.3	67.7	73.4	71.9	72.9	72.8
Denmark	17.3	16.2	15.8	17.5	18.0	69.4	66.2	64.2	64.5	64.1
Finland	8.9	11.0	11.3	11.3	11.2	62.8	64.6	63.5	63.3	63.6
France	13.8	13.7	12.9	13.3	13.6	78.6	79.5	80.2	80.7	79.1
Germany	13.5	18.8	19.6	20.1	21.8	87.1	83.7	83.3	82.8	81.4
Greece	7.8	5.6	5.6	6.0	6.1	59.1	67.3	68.3	68.7	69.6
Hungary	..	2.6	3.2	3.3	3.2	..	69.9	69.0	67.7	70.5
Iceland	22.6	20.1	..	..	..	78.3	73.1	..	..	..
Ireland	13.5	18.1	18.8	18.7	18.6	70.3	77.1	76.7	78.8	79.1
Italy	10.0	11.9	12.0	14.9	14.7	72.6	74.4	74.7	76.1	78.0
Japan[b, d]	21.4	25.1	26.0	25.5	25.8	67.6	67.0	66.7	67.4	67.7
Korea[b]	4.5	7.6	7.7	8.4	9.0	61.3	58.3	59.4	59.0	57.9
Luxembourg	10.7	12.6	13.3	13.3	14.0	88.6	89.1	92.9	91.7	92.9
Mexico	..	13.5	13.4	15.1	..	..	65.6	65.7	65.1	..
Netherlands	28.9	33.9	34.6	35.0	35.7	76.8	75.4	76.1	76.0	76.3
New Zealand	21.0	22.6	22.3	22.0	21.7	76.1	72.9	73.7	73.6	74.8
Norway	21.5	20.6	21.0	21.1	20.8	80.6	76.2	75.2	74.1	74.6
Poland	..	11.7	11.5	12.0	11.7	..	65.0	66.2	65.7	66.5
Portugal	9.5	9.7	10.0	9.6	9.8	71.3	67.6	68.2	67.0	67.9
Slovak Republic	2.7	1.6	2.3	2.7	2.6	72.0	66.1	69.1	73.0	69.2
Spain	6.4	7.7	8.0	8.5	11.4	75.5	80.1	80.6	80.9	78.0
Sweden	15.8	13.8	14.1	14.4	..	76.8	71.8	70.8	69.5	..
Switzerland[c]	23.2	24.8	25.1	24.9	25.1	83.3	82.8	82.2	82.1	82.7
Turkey	9.1	6.6	6.0	6.7	5.8	60.5	58.3	56.9	58.8	59.4
United Kingdom	22.4	23.4	23.8	24.1	23.6	82.7	79.2	77.8	77.8	77.3
United States[e]	14.2	13.1	13.2	13.2	12.8	68.4	68.3	68.8	68.3	68.4
EU-15[f]	14.6	16.4	16.6	17.4	18.1	80.1	78.9	78.6	78.6	78.3
EU-19[f]	14.1	15.3	15.5	16.2	16.8	79.9	78.0	77.9	77.8	77.6
OECD Europe[f]	13.8	14.7	14.8	15.4	15.8	78.6	77.3	77.1	77.1	77.0
Total OECD[f]	11.6	14.6	14.8	15.2	15.4	73.9	72.3	72.3	72.2	72.9

a) Part-time employment refers to persons who usually work less than 30 hours per week in their main job. Data include only persons declaring usual hours.

b) Data are based on actual hours worked.

c) Part-time employment based on hours worked at all jobs.

d) Less than 35 hours per week.

e) Data are for wage and salary workers only.

f) For above countries only.

Sources and definitions: OECD database on Labour Force Statistics (see URLs at the beginning of the Annex). For Austria, Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom, data are from the European Union Labour Force Survey. See OECD (1997), "Definition of Part-time Work for the Purpose of International Comparisons", Labour Market and Social Policy Occasional Paper No. 22, available on Internet (www.oecd.org/els/workingpapers).

Statlink: http://dx.doi.org/10.1787/606732285655

Table F. **Average annual hours actually worked per person in employment**[a]

	1979	1983	1994	2000	2001	2002	2003	2004	2005
Total employment									
Australia	1904	1853	1875	1855	1837	1824	1814	1816	1811
Austria	..	..	..	1632	1630	1632	1632	1636	1636
Belgium	..	1659	1551	1545	1547	1548	1542	1522	1534
Canada	1832	1780	1780	1766	1760	1743	1733	1751	1737
Czech Republic	..	..	2043	2092	2000	1980	1972	1986	2002
Denmark	1727	1669	1494	1554	1562	1556	1554	1540	1551
Finland[b]	..	1809	1763	1721	1694	1686	1669	1688	1666
Finland[c]	1870	1823	1777	1750	1734	1727	1718	1719	1700
France	1856	1759	1676	1592	1579	1537	1532	1543	1535
Germany	..	..	1543	1468	1453	1441	1434	1440	1435
Western Germany	1758	1692	1507	1443	1431	1421	1424	1426	1421
Greece		2152	2092	2080	2086	2087	2087	2060	2053
Hungary	..	2112	2032	2061	2019	2026	1997	1996	1994
Iceland	1875	1860	1813	1885	1847	1812	1807	1810	1794
Ireland	..	1902	1824	1696	1688	1673	1655	1651	1638
Italy	1973	1946	1882	1855	1851	1828	1810	1803	1791
Japan	2126	2095	1898	1821	1809	1798	1801	1789	1775
Korea	..	2923	2651	2520	2506	2465	2434	2394	..
Luxembourg	..	1727	1663	1639	1622	1613	1592	1571	1557
Mexico	..	..	..	1888	1864	1888	1857	1848	..
Netherlands	..	1664	1362	1368	1368	1338	1354	1357	1367
New Zealand	..	..	1849	1830	1817	1817	1813	1826	1809
Norway	1514	1485	1432	1380	1362	1345	1338	1363	1360
Poland	..	..	..	1988	1974	1979	1984	1983	1994
Portugal	..	..	1744	1691	1696	1697	1678	1694	1685
Slovak Republic	..	..	1854	1811	1799	1746	1697	1735	1791
Spain	2022	1912	1816	1815	1817	1798	1800	1799	1775
Sweden	1530	1532	1621	1625	1603	1580	1563	1585	1587
Switzerland	1819	1760	1725	1685	1646	1629	1639	1629	..
Turkey	..	..	..	..	..	..	..	1918	..
United Kingdom	1815	1713	1737	1708	1711	1692	1683	1669	1672
United States	1834	1825	1842	1841	1819	1814	1806	1808	1804
Dependent employment									
Austria	..	..	..	1509	1520	1493	1481	1485	1488
Belgium	..	1562	1510	1432	1457	1451	1449	1441	1450
Canada	1801	1762	1769	1754	1749	1737	1727	1743	1733
Czech Republic	..	..	1974	2018	1922	1896	1882	1900	1923
Denmark	..	1523	1420	1409	1447	1410	1423	1406	1420
Finland[b]	..	..	1666	1638	1616	1609	1596	1622	1605
France	1711	1609	1564	1492	1482	1444	1441	1456	1446
Germany	..	..	1465	1381	1370	1362	1361	1360	1372
Western Germany	1687	1618	1429	1356	1348	1341	1341	1341	1353
Greece	..	1766	1792	1818	1826	1818	1812	1803	1811
Hungary	..	1829	1759	1795	1766	1766	1777	1805	1802
Iceland	..	..	1774	1820	1779	1740	1782	1823	1816
Ireland	..	1702	1652	1596	1598	1583	1576	1570	1562
Japan[d]	2114	2098	2052	1859	1848	1837	1846	1840	1829
Japan[e]	..	..	1910	1853	1836	1825	1828	1816	1802
Korea	..	2734	2471	2474	2447	2410	2390	2380	2351
Luxembourg	..	1638	1598	1596	1577	1582	1542	1535	1524
Mexico	..	..	..	1935	1915	1945	1908	1920	..
Netherlands	1591	1530	1388	1331	1330	1317	1309	1312	1322
New Zealand	..	..	1772	1768	1761	1759	1758	1801	1791
Poland	..	..	..	1963	1957	1958	1956	1957	1970
Portugal	..	..	..	1670	1683	1686	1677	1690	1680
Spain	1936	1837	1749	1754	1759	1743	1747	1746	1728
United Kingdom	1750	1652	1693	1684	1686	1671	1659	1646	1652
United States	1839	1837	1850	1844	1822	1817	1809	1813	1809

Table F. **Average annual hours actually worked per person in employment**[a] (*cont.*)

a) The concept used is the total number of hours worked over the year divided by the average number of people in employment. The data are intended for comparisons of trends over time; they are unsuitable for comparisons of the level of average annual hours of work for a given year, because of differences in their sources. Part-time workers are covered as well as full-time.
b) Data estimated from the Labour Force Survey.
c) Data estimated from national accounts.
d) Data refer to establishments with 30 or more regular employees.
e) Data refer to establishments with five or more regular employees.

Sources and definitions:

The series on annual hours actually worked per person in **total employment** presented in this table for all 30 OECD countries are now consistent with the series retained for the calculation of productivity measures in the OECD Productivity database (http://www.oecd.org/statistics/productivity/compendium). Hours actually worked per person in employment are according to national accounts concepts for 15 countries: Austria, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Korea, Norway, the Slovak Republic, Sweden, Switzerland and Turkey. As a result, hours worked series for the following six countries were replaced by series collected through the national accounts questionnaire: Austria, Denmark, Greece, Italy, the Slovak Republic, and Switzerland. Data for Hungary, Korea and Turkey are included for the first time and are also taken from the national accounts questionnaire replies. Estimates for the remaining 21 OECD countries are from the same source and methodology as those presented in the previous edition of the *Employment Outlook*, as are estimates reported for **dependent employment** for 24 countries.

Country specific notes can be found at: www.oecd.org/els/employmentoutlook/statannex.

Statlink: *http://dx.doi.org/10.1787/020846565143*

Table G. **Incidence of long-term unemployment**[a, b, c, d, e]

As a percentage of total unemployment

	1994		2002		2003		2004		2005	
	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over
Australia	52.6	36.1	36.2	22.3	34.8	21.3	33.5	20.5	30.2	17.7
Austria	31.8	18.4	33.5	19.2	41.0	24.5	46.3	27.6	43.2	25.3
Belgium	75.2	58.3	67.3	49.6	64.7	46.3	68.9	49.6	68.3	51.6
Canada	32.7	17.9	18.5	9.6	18.3	10.0	17.8	9.5	17.2	9.6
Czech Republic	41.9	22.3	70.3	50.7	69.9	49.9	71.6	51.8	72.7	53.6
Denmark	54.0	32.1	33.3	19.7	40.9	19.9	45.0	22.6	43.8	25.9
Finland	..	..	41.7	24.4	41.4	24.7	40.8	23.4	41.8	24.9
France	61.7	38.5	53.4	33.8	62.0	42.9	61.3	41.6	61.2	42.5
Germany	63.8	44.3	64.8	47.9	68.5	50.0	67.6	51.8	71.0	54.0
Greece	72.8	50.5	72.4	52.7	74.3	56.3	74.4	54.8	72.6	53.7
Hungary	62.6	41.3	67.4	44.8	65.4	42.2	61.7	45.1	63.4	46.1
Iceland	32.2	15.1	24.8	11.1	21.0	8.1	21.3	11.2	..	..
Ireland	80.7	64.3	50.5	29.4	57.0	35.5	55.0	34.3	52.6	34.3
Italy	79.5	61.5	75.7	59.2	74.1	58.2	65.5	49.7	67.7	52.2
Japan	36.1	17.5	49.0	30.8	50.9	33.5	50.0	33.7	49.1	33.3
Korea	20.7	5.4	13.8	2.5	10.0	0.6	11.4	1.1	11.6	0.8
Luxembourg[f]	(54.7)	(29.6)	(46.8)	(27.4)	(42.6)	(24.9)	(44.8)	(20.8)	(51.0)	(26.3)
Mexico	..	..	5.4	0.9	4.9	1.0	5.1	1.1	6.8	2.4
Netherlands	77.5	49.4	43.2	26.7	49.3	29.2	55.1	32.5	59.9	40.1
New Zealand	50.4	32.7	28.6	14.5	27.4	13.5	23.9	11.7	21.5	9.4
Norway	43.7	28.8	20.0	6.4	20.6	6.4	25.3	9.2	25.3	9.5
Poland	65.2	40.4	70.0	48.4	70.2	49.7	68.7	47.9	71.6	52.2
Portugal	57.2	43.4	54.5	35.5	57.8	32.8	65.0	43.2	69.3	48.6
Slovak Republic	63.9	42.6	77.5	59.8	76.4	61.1	77.0	60.6	81.4	68.1
Spain	73.4	56.2	59.2	40.2	59.6	39.8	58.0	37.7	47.7	32.6
Sweden	46.7	25.7	36.2	21.0	35.4	17.8	37.3	18.9	..	..
Switzerland	50.1	29.0	37.4	21.8	47.8	26.3	53.9	33.5	59.2	38.8
Turkey	68.9	45.9	45.5	29.4	39.9	24.4	56.9	39.2	55.6	39.6
United Kingdom	63.4	45.4	38.7	22.9	37.2	22.8	38.8	21.4	38.2	22.4
United States	20.3	12.2	18.3	8.5	22.0	11.8	21.9	12.7	19.6	11.8
EU-15[g]	67.6	48.4	59.1	41.5	61.5	43.4	60.4	42.4	61.4	44.3
EU-19[g]	66.9	47.0	62.1	43.6	63.7	45.1	62.5	44.1	63.8	46.4
OECD Europe[g]	66.9	46.7	59.8	41.6	60.6	42.4	61.6	43.3	62.6	45.3
Total OECD[g]	52.6	35.5	44.9	29.6	46.3	30.9	47.1	31.9	47.0	32.9

Table G. **Incidence of long-term unemployment among men**[a, b, c, d, e] (*cont.*)

As a percentage of male unemployment

	1994		2002		2003		2004		2005	
	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over
Australia	56.9	39.9	39.6	25.5	38.7	24.9	37.0	23.4	33.8	20.2
Austria	30.8	18.4	32.1	16.4	40.6	25.0	46.5	28.6	43.0	25.7
Belgium	72.4	53.4	66.6	45.9	63.5	44.8	70.7	50.4	65.7	50.4
Canada	34.5	19.5	19.3	10.3	19.8	11.4	18.9	10.4	17.8	10.1
Czech Republic	40.4	21.7	69.2	50.3	67.2	47.4	69.2	49.3	71.9	52.9
Denmark	52.1	31.9	30.3	17.2	43.6	21.8	47.4	22.5	49.3	29.7
Finland	..	..	44.8	27.3	45.3	27.7	43.7	25.3	44.9	27.9
France	60.3	37.4	52.5	32.2	61.7	43.0	61.2	41.5	60.2	41.8
Germany	60.4	41.2	63.4	46.0	67.2	48.3	65.7	50.5	70.3	53.8
Greece	65.8	41.3	68.1	47.4	70.2	48.9	67.1	47.2	64.5	43.1
Hungary	65.0	43.6	69.2	47.0	66.0	42.2	62.6	47.0	64.0	47.9
Iceland	29.7	14.0	19.4	9.5	20.4	8.2	16.2	8.8	..	..
Ireland	83.0	68.5	57.8	36.1	62.2	41.2	61.7	40.8	60.0	42.4
Italy	77.4	59.6	74.0	58.2	73.1	57.5	63.8	47.3	66.2	50.5
Japan	40.2	21.4	54.5	36.2	56.9	38.9	56.1	40.2	56.3	40.3
Korea	22.8	6.4	16.2	3.1	12.5	0.7	13.4	1.4	12.9	1.0
Luxembourg[f]	(59.6)	(33.8)	(39.3)	(28.6)	(50.0)	(33.2)	(44.4)	(21.8)	(53.2)	(33.6)
Mexico	..	..	5.5	1.2	5.1	1.1	5.8	1.1	6.2	2.3
Netherlands	74.3	50.0	39.5	26.9	49.7	29.8	58.2	36.0	63.8	44.7
New Zealand	55.7	37.2	32.0	17.2	30.4	15.6	26.8	13.7	24.3	12.6
Norway	43.5	28.1	23.1	8.3	23.3	7.1	28.2	10.7	27.0	10.4
Poland	61.8	36.8	67.4	45.1	69.3	48.6	67.9	46.9	70.4	51.3
Portugal	54.2	42.3	52.3	34.7	56.2	31.3	64.7	43.8	66.5	47.1
Slovak Republic	63.8	41.7	76.6	58.5	76.0	60.2	76.5	60.8	81.0	68.7
Spain	68.5	49.5	52.9	34.3	54.5	34.3	53.8	33.2	42.9	28.2
Sweden	50.0	29.1	38.9	23.1	38.4	19.6	39.7	20.9	..	..
Switzerland	47.4	22.8	37.3	19.5	42.9	21.6	50.2	31.5	58.9	37.1
Turkey	66.8	43.7	43.5	27.0	36.3	22.1	55.0	37.0	53.0	36.9
United Kingdom	68.6	51.2	43.8	26.7	40.9	26.4	43.0	25.0	43.2	26.2
United States	22.2	13.9	18.9	8.9	23.1	12.5	23.0	13.7	20.7	12.6
EU-15[g]	66.0	46.9	57.4	39.6	60.3	42.1	59.5	41.6	60.8	43.9
EU-19[g]	65.3	45.4	60.3	41.6	62.6	43.8	61.6	43.2	63.1	45.9
OECD Europe[g]	65.2	45.0	57.3	38.9	58.1	40.1	60.3	42.0	61.3	44.2
Total OECD[g]	52.0	34.9	44.0	28.5	45.5	30.2	47.0	31.9	46.9	32.8

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Table G. **Incidence of long-term unemployment among women**[a, b, c, d, e] (*cont.*)

As a percentage of female unemployment

	1994		2002		2003		2004		2005	
	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over	6 months and over	12 months and over
Australia	46.3	30.5	31.8	18.1	30.0	16.9	29.4	17.1	26.2	14.9
Austria	33.1	18.5	35.5	23.3	41.6	23.9	46.1	26.5	43.5	24.9
Belgium	77.7	62.6	68.0	53.6	66.2	48.2	67.0	48.8	71.0	52.7
Canada	30.1	15.6	17.3	8.7	16.4	8.2	16.4	8.4	16.4	9.1
Czech Republic	43.1	22.8	71.2	51.1	72.1	51.9	73.8	54.1	73.4	54.2
Denmark	55.8	32.4	36.7	22.4	38.1	17.9	42.5	22.7	39.1	22.7
Finland	..	..	38.3	21.2	37.0	21.4	37.8	21.4	38.6	21.9
France	63.1	39.5	54.3	35.2	62.2	42.8	61.3	41.8	62.1	43.2
Germany	67.1	47.2	66.7	50.3	70.3	52.3	70.3	53.7	71.9	54.4
Greece	78.0	57.2	75.2	56.1	76.9	60.9	78.7	59.2	77.2	59.6
Hungary	58.9	37.6	64.9	41.7	64.6	42.2	60.7	42.8	62.7	44.2
Iceland	34.9	16.3	32.6	13.3	21.8	7.8	26.9	14.0	..	..
Ireland	76.8	57.4	38.1	18.0	48.1	25.9	42.7	22.3	40.4	21.1
Italy	81.5	63.3	77.2	60.1	74.9	58.9	67.0	52.0	69.1	53.8
Japan	30.5	12.2	40.3	22.4	40.8	24.6	40.2	23.1	38.3	22.6
Korea	16.1	3.2	9.4	1.2	6.0	0.3	8.2	0.6	9.3	0.4
Luxembourg[f]	(48.9)	(24.6)	(52.6)	(26.5)	(35.9)	(17.4)	(45.0)	(20.2)	(49.3)	(20.3)
Mexico	..	..	5.1	0.4	4.5	0.8	4.1	1.1	8.0	2.6
Netherlands	80.9	48.7	47.0	26.4	48.8	28.4	51.7	28.8	55.6	35.0
New Zealand	42.8	26.2	24.8	11.6	24.3	11.3	21.3	9.9	18.7	6.2
Norway	43.9	29.8	16.0	3.9	16.8	5.4	21.3	7.0	23.2	8.5
Poland	68.4	43.8	72.8	52.0	71.1	50.8	69.5	49.0	72.9	53.1
Portugal	60.1	44.3	56.4	36.2	59.1	34.1	65.2	42.6	72.0	49.9
Slovak Republic	64.1	43.5	78.7	61.2	76.7	62.1	77.6	60.3	82.0	67.4
Spain	78.4	63.0	63.8	44.5	63.4	43.9	61.1	41.1	51.4	36.0
Sweden	41.8	20.5	32.7	18.2	31.4	15.3	34.2	16.4	..	..
Switzerland	53.0	35.4	37.4	24.4	52.8	31.1	57.5	35.5	59.4	40.4
Turkey	74.7	51.9	51.5	36.5	50.0	30.9	62.5	45.6	63.1	47.4
United Kingdom	53.3	33.9	30.9	17.1	31.4	17.1	33.0	16.4	31.0	16.9
United States	18.1	10.2	17.6	8.1	20.7	11.0	20.5	11.4	18.4	10.8
EU-15[g]	69.4	50.0	60.8	43.4	62.9	44.8	61.4	43.3	62.0	44.8
EU-19[g]	68.7	48.7	63.9	45.7	64.9	46.5	63.5	45.0	64.5	46.9
OECD Europe[g]	68.8	48.6	62.7	44.8	63.6	45.1	63.2	44.7	64.2	46.7
Total OECD[g]	53.2	36.2	46.0	30.9	47.2	31.9	47.1	32.0	47.2	33.0

a) While data from labour force surveys make international comparisons easier, compared to a mixture of survey and registration data, they are not perfect. Questionnaire wording and design, survey timing, differences across countries in the age groups covered, and other reasons mean that care is required in interpreting cross-country differences in levels.

b) The duration of unemployment database maintained by the OECD Secretariat is composed of detailed duration categories disaggregated by age and sex. All totals are derived by adding each component. Thus, the total for men is derived by adding the number of unemployed men by each duration and age group category. Since published data are usually rounded to the nearest thousand, this method sometimes results in slight differences between the percentages shown here and those that would be obtained using the available published figures.

c) Data are averages of monthly figures for Australia, Canada, Sweden and the United States, averages of quarterly figures for the Czech Republic, Hungary, Norway, New Zealand, Poland, the Slovak Republic and Spain, averages of semi annual figures for Turkey until 1999 and quarterly averages since 2000. The reference period for the remaining countries is as follows (among EU countries it occasionally varies from year to year): Austria, March, and since 2004 all weeks of the first quarter; Belgium, April, and since 1999 all weeks of the second quarter; Denmark, April-May; Finland, autumn prior to 1995, spring between 1995 and 1998, and averages of monthly figures since 1999; France, March and since 2003 all weeks of the first quarter; Germany, April, and since 2005 all weeks of the second quarter; Greece, March-July; Iceland, April; Ireland, May; Italy, April and since 2004 all weeks of the second quarter; Japan, February; Luxembourg, April and since 2003 all weeks of the year; Mexico, April; the Netherlands, March-June; Portugal, February-April; Switzerland, second quarter; and the United Kingdom, March-May.

d) Data refer to persons aged 15 and over in Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Poland, Portugal, the Slovak Republic, Switzerland and Turkey; and aged 16 and over in Iceland, Spain, the United Kingdom and the United States. Data for Finland refer to persons aged 15-64. Data for Hungary refer to persons aged 15-74, for Norway to persons aged 16-74 and for Sweden to persons aged 16-64.

e) Persons for whom no duration of unemployment was specified are excluded.

f) Data in brackets are based on small sample sizes and, therefore, must be treated with care.

g) For above countries only.

Source: OECD database on Labour Force Statistics (see URLs at the beginning of the Annex).

Statlink: http://dx.doi.org/10.1787/511653820041

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a]

Programme categories and sub-categories	Australia[b]						Austria						Belgium						Canada[i]					
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force		
	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05
1. PES and administration[a]	**0.17**	**0.19**	**0.19**				**0.15**	**0.17**	**0.17**				**0.21**	**0.22**	**0.23**				**0.18**	**0.17**	**0.17**			
of which: 1.1. Placement and related services[a]	0.10	0.12	0.16				0.07	0.07	0.07				0.03	0.02	0.03				0.03 [j]	0.03 [j]	0.02 [j]			
1.2. Benefit administration[a]	0.03	0.03	0.03				0.02 [e]	0.02 [e]	0.02 [e]				..	0.06 [g]	0.06 [g]				0.05	0.05	0.04			
2. Training	**0.04** [c]	**0.03** [c]	**0.04** [c]	**0.36**	**0.34**	**0.33**	**0.24** [f]	**0.30** [f]	**0.28** [f]	**1.39**	**1.72**	**1.67**	**0.18**	**0.18**	**0.20**	**1.64**	**2.47**	**2.71**	**0.13**	**0.12**	**0.12**	**1.28**	**1.29**	**1.48**
2.1. Institutional training	0.02	0.02	0.02	0.08	0.09	0.10	0.19	0.24	0.22	..	..	..	0.17	0.17	0.19	0.84	1.53	1.87	0.11	0.10	0.10	0.87	0.90	1.08
2.2. Workplace training	-	-	-	0.18	0.18	0.17	0.01	0.01	0.01	..	..	..	-	-	-	0.25	0.40	0.28	0.01	0.01	0.01	0.10	0.08	0.10
2.3. Integrated training	-	-	-	0.10	0.08	0.06	-	-	-	..	..	..	-	-	-	-	-	-	-	-	-	-	-	-
2.4. Special support for apprenticeship[a]	0.01	0.01	0.01	-	-	-	0.02	0.02	0.02	..	..	..	-	-	-	0.56	0.54	0.56	0.01	0.01	0.01	0.31	0.31	0.30
4. Employment incentives[a]	**0.01**	**0.01**	**0.01**	**0.09**	**0.10**	**0.13**	**0.06**	**0.06**	**0.06**	**1.32**	**1.22**	**1.09**	**0.16** [h]	**0.21** [h]	**0.15** [h]	**2.86**	**3.16**	**1.27**	**-**	**-**	**-**	**0.20**	**0.18**	**0.17**
4.1. Recruitment incentives	0.01	0.01	0.01	0.09	0.10	0.13	0.04	0.04	0.04	0.41	0.37	0.34	0.09	0.15	0.08	1.94	2.20	0.82	-	-	-	0.20	0.18	0.17
4.2. Employment maintenance incentives	-	-	-	-	-	-	0.02	0.02	0.02	0.92	0.85	0.75	-	-	-	-	-	-	-	-	-	-	-	-
5. Integration of the disabled	**0.05**	**0.05**	**0.05**	**0.65**	**0.68**	**0.65**	**0.06**	**0.05**	**0.05**	**..**	**..**	**..**	**0.11**	**0.11**	**0.11**	**0.65**	**0.65**	**0.64**	**0.02**	**0.02**	**0.02**	**..**	**..**	**..**
5.1. Regular employment	0.02	0.02	0.02	0.32	0.32	0.32	0.02	0.02	0.02	..	..	-	-	-	-	-	-	-	-	-	-	-	-	-
5.2. Sheltered employment[a]	0.01	0.01	0.02	0.17	0.17	0.16	0.01	0.01	0.01	0.04	0.04	0.04	-	-	-	-	-	-	-	-	-	0.02	0.04	0.07
5.3. Other rehabilitation and training	0.01	0.02	0.02	0.13	0.17	0.17	0.02	0.01	0.01	..	..	-	-	-	-	0.02	0.01	-	0.02	0.02	0.02	..	..	..
6. Direct job creation	**0.09** [c]	**0.09** [c]	**0.09** [c]	**0.66**	**0.71**	**0.70**	**0.04**	**0.04**	**0.04**	**0.12**	**0.13**	**0.12**	**0.42**	**0.48**	**0.46**	**2.53**	**2.56**	**2.54**	**0.02**	**0.02**	**0.01**	**0.08**	**0.08**	**0.07**
7. Start-up incentives	**0.01**	**0.01**	**0.01**	**0.06**	**0.05**	**0.05**	**-**	**-**	**-**	**0.02**	**0.02**	**0.02**	**-**	**-**	**-**	**0.02**	**0.03**	**0.02**	**0.01**	**0.01**	**0.01**	**0.13**	**0.13**	**0.12**
8. Out-of-work income maintenance and support[a]	**0.79**	**0.72**	**0.64**	**7.39**	**6.80**	**6.01**	**1.10**	**1.11**	**1.10**	**5.63**	**5.54**	**5.66**	**1.89**	**2.03**	**1.97**	**12.41**	**13.63**	**13.62**	**0.76**	**0.77**	**0.69**	**..**	**..**	**..**
8.1. Full unemployment benefits	0.78 [d]	0.71 [d]	0.63 [d]	7.39	6.80	6.01	0.95	0.94	0.94	5.57	5.50	5.60	1.67	1.77	1.76	11.92	12.74	12.86	0.76	0.77	0.69	..	..	..
of which: Unemployment insurance	-	-	-	-	-	-	0.62	0.60	0.58	3.38	3.23	3.19	1.67	1.77	1.76	11.92	12.74	12.86	0.76	0.77	0.69	..	..	..
8.2, 8.3. Partial and part-time unemployment benefits	-	-	-	-	-	-	0.02	0.01	0.02	0.07	0.04	0.06	0.15	0.16	0.14	0.49	0.89	0.76	-	-	-	-	-	-
8.4, 8.5. Redundancy and bankrupcy compensation	0.01	0.01	0.01	-	-	-	0.13	0.16	0.14	-	-	-	0.08	0.10	0.07	-	-	-	-	-	-	-	-	-
9. Early retirement[a]	**-**	**-**	**-**	**-**	**-**	**-**	**0.15**	**0.25**	**0.30**	**0.91**	**1.43**	**1.72**	**0.44**	**0.44**	**0.43**	**2.47**	**2.48**	**2.43**	**-**	**-**	**-**	**..**	**..**	**..**
TOTAL (1-9 ; 2-9 for stocks)	**1.16**	**1.10**	**1.03**				**1.81**	**1.99**	**2.00**				**3.42**	**3.69**	**3.56**				**1.15**	**1.14**	**1.04**			
Active measures (1-7)	0.37	0.38	0.39				0.56	0.62	0.60				1.09	1.22	1.15				0.39 [k]	0.37 [k]	0.36 [k]			
of which: Categories 1.1 plus 2-7	0.29	0.31	0.35				0.48	0.52	0.50				0.91	1.02	0.95				0.24 [k]	0.22 [k]	0.21 [k]			
Categories 2-7 only	0.20	0.19	0.20	1.81	1.89	1.86	0.41	0.45	0.43	..	..	..	0.88	0.99	0.92	7.69	8.87	7.19	0.21 [k]	0.19 [k]	0.18 [l]	2.23 [j, l]	2.25 [j, l]	2.23 [j, l]
Passive measures (8-9)	0.79	0.72	0.64	7.39	6.80	6.01	1.25	1.37	1.39	6.55	6.97	7.38	2.33	2.47	2.41	14.88	16.11	16.05	0.77	0.77	0.69	..	..	..

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration status commonly involves less than full-time participation, and continues during participation in another type of programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.

b) Fiscal years starting on July 1st.

c) Income support payments to participants in training (Category 2) and Work for the Dole (Category 6) are usually unemployment benefits, reported in Category 8. Payments to participants in Measures for Indigenous Australians (CDEP) are reported in Category 6.

d) Includes Mature Age and Partner Allowances, excludes Youth and Widow Allowances.

e) Staff costs of the unemployment insurance service.

f) Includes Employment Foundations established by enterprises in cases of large-scale manpower reductions, which have not been allocated across subcategories.

g) Does not include administration costs of union benefit payment organisations.

h) Includes the income guarantee allowance for part-time workers. This resembles regular unemployment benefit paid at a reduced rate in the case of part-time work or earnings. It has not been allocated across subcategories.

i) Fiscal years starting on April 1st.

j) Employment Assistance Service.

k) Includes the Aboriginal Human Resources Development Agreement, which has not been allocated across subcategories.

l) Participant stocks for Category 5.3 "Other rehabilitation and training" are not included.

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a] (*cont.*)

Programme categories and sub-categories	Czech Republic						Denmark						Finland						France					
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force		
	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004
1. PES and administration[a]	**0.07**	**0.08**	**0.12**				**0.26**	**0.27**	**0.32**				**0.14**[g]	**0.16**[g]	**0.20**[g]				**..**	**0.24**	**0.25**			
of which: 1.1. Placement and related services[a]	0.03	0.04	0.04				0.01	0.01	0.05				0.10	0.08	0.09				0.12	0.15	0.15			
1.2. Benefit administration[a]	..	..	..				0.16[c]	0.16[c]	0.15[c]				0.04[g]	0.05[g]	0.05[g]				..	0.10	0.09			
2. Training	**0.01**	**0.02**	**0.02**	**0.11**	**0.14**	**0.15**	**0.70**	**0.61**	**0.54**	**2.05**	**1.87**	**1.24**	**0.34**	**0.35**	**0.41**	**1.64**	**1.84**	**1.92**	**0.29**[i]	**0.30**[i]	**0.31**[i]	**..**	**..**	**1.95**
2.1. Institutional training	-	-	-	-	-	-	0.68	0.59	0.52	1.82	1.64	1.03	0.28	0.29	0.33	1.10	1.23	1.25	0.09	0.09	0.09	..	..	0.62
2.2. Workplace training	-	-	-	-	-	-	-	-	-	0.01	0.01	-	0.05	0.05	0.06	0.39	0.45	0.50	-	-	-	..	-	-
2.3. Integrated training	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.03	0.04	0.04	..	..	0.32
2.4. Special support for apprenticeship[a]	-	-	-	-	-	-	0.02	0.02	0.02	0.22	0.21	0.21	0.01	0.01	0.02	0.15	0.15	0.17	0.08	0.08	0.08	1.08	0.99	1.01
4. Employment incentives[a]	**0.04**	**0.03**	**0.05**	**0.58**	**0.53**	**0.47**	**0.53**	**0.48**	**0.46**	**1.36**	**1.21**	**1.15**	**0.16**[h]	**0.19**[h]	**0.18**[h]	**0.98**	**1.12**	**1.05**	**0.11**	**0.08**	**0.10**	**..**	**..**	**1.79**
4.1. Recruitment incentives	0.04	0.03	0.05	0.58	0.53	0.46	0.53	0.48	0.46	1.36	1.21	1.15	0.11	0.13	0.12	0.69	0.77	0.77	0.11	0.08	0.10	..	..	1.79
4.2. Employment maintenance incentives	-	-	-	..	..	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Integration of the disabled	**..**	**..**	**0.03**	**..**	**..**	**0.03**	**0.50**	**0.52**	**0.52**	**2.26**	**2.35**	**2.49**	**0.11**	**0.10**	**0.10**	**0.36**	**0.39**	**0.33**	**0.09**	**0.09**	**0.09**	**..**	**..**	**..**
5.1. Regular employment	..	..	0.02	..	..	-	-	0.01	0.01	0.09	0.11	0.11	-	-	-	-	-	-	0.03	0.02	0.02	..	..	..
5.2. Sheltered employment[a]	0.01	0.01	0.01	..	..	0.03	0.17	0.19	0.23	1.05	1.06	1.24	0.02	0.02	0.02	0.11	0.11	0.10	0.06	0.07	0.06	0.43	0.42	0.45
5.3. Other rehabilitation and training	-	-	-	..	..	-	0.33	0.31	0.28	1.12	1.17	1.13	0.08	0.08	0.08	0.25	0.28	0.23	-	-	-	-	-	-
6. Direct job creation	**0.03**	**0.03**	**0.03**	**0.21**	**0.21**	**0.19**	**-**	**-**	**-**	**0.01**	**-**	**-**	**0.10**	**0.09**	**0.09**	**0.46**	**0.44**	**0.42**	**0.40**	**0.34**	**0.23**	**1.91**	**1.57**	**1.16**
7. Start-up incentives	**-**	**0.01**	**0.01**	**0.13**	**0.11**	**0.12**	**-**	**-**	**-**	**-**	**-**	**-**	**0.01**	**0.01**	**0.01**	**0.07**	**0.08**	**0.10**	**-**	**0.01**	**-**	**0.14**	**0.19**	**0.19**
8. Out-of-work income maintenance and support[a]	**0.26**	**0.28**	**0.26**	**3.35**	**3.56**	**3.29**	**1.55**[d]	**1.88**[d]	**1.94**[d]	**5.73**	**6.85**	**6.96**	**1.54**	**1.58**	**1.58**	**11.28**	**11.26**	**11.45**	**1.45**	**1.64**	**1.64**	**9.19**	**9.54**	**9.75**
8.1. Full unemployment benefits	0.25	0.27	0.25	3.35	3.56	3.29	1.51[e]	1.85[e]	1.92[e]	5.73	6.85	6.96	1.39	1.44	1.46	10.02	10.03	10.22	1.45	1.64	1.64	9.17	9.52	9.74
of which: Unemployment insurance	0.25	0.27	0.25	3.35	3.56	3.29	1.30[e]	1.58[e]	1.55[e]	4.97	5.91	5.85	0.80	0.87	0.90	4.46	4.64	4.86	1.29	1.49	1.49	7.61	8.02	8.24
8.2, 8.3. Partial and part-time unemployment benefits	-	-	-	-	-	-	..	..	..	..	..	..	0.12	0.11	0.11	1.26	1.23	1.22	-	-	-	0.02	0.02	0.01
8.4, 8.5. Redundancy and bankrupcy compensation	0.01	0.01	0.01	-	-	-	0.04	0.03	0.02	-	-	-	0.03	0.02	0.01	-	-	-	-	-	-	-	-	-
9. Early retirement[a]	**0.02**	**0.03**	**-**[b]	**0.20**	**0.41**	**-**	**0.76**[f]	**0.76**[f]	**0.72**[f]	**2.92**	**2.88**	**2.75**	**0.53**	**0.51**	**0.48**	**2.09**	**2.04**	**1.96**	**0.13**	**0.10**	**0.08**	**0.58**	**0.47**	**0.45**
TOTAL (1-9 ; 2-9 for stocks)	**0.44**	**0.48**	**0.52**				**4.31**	**4.52**	**4.49**				**2.92**	**3.00**	**3.04**				**..**	**2.81**	**2.69**			
Active measures (1-7)	0.16[b]	0.17[b]	0.26				2.00	1.88	1.83				0.86	0.91	0.98				..	1.07	0.97			
of which: Categories 1.1 plus 2-7	0.13[b]	0.13[b]	0.17				1.75	1.62	1.56				0.82	0.83	0.87				1.03	0.98	0.88			
Categories 2-7 only	0.08[b]	0.08[b]	0.13	..	..	0.96	1.74	1.61	1.52	5.67	5.43	4.88	0.72	0.75	0.78	3.51	3.86	3.83	0.90	0.82	0.73	..	..	5.53[j]
Passive measures (8-9)	0.28	0.31	0.26	3.54	3.97	3.29	2.31	2.65	2.66	8.65	9.73	9.70	2.06	2.09	2.07	13.37	13.30	13.40	1.58	1.74	1.72	9.76	10.00	10.20

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration commonly involves more limited engagement and continues during participation in another programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.

b) Expenditure for Category 5.1 "Regular employment" is not included.

c) Two-thirds of the administration costs of independent unemployment insurance funds (the remainder is a Secretariat estimate for the share relating to early retirement schemes). Includes some placement-related services.

d) Includes social assistance benefits paid to unemployed but not inactive recipients.

e) Includes part-time and partial benefits.

f) Early retirement benefits (efterløn) only when paid to recipients who entered the scheme from unemployment.

g) Includes the administration costs of independant unemployment insurance funds.

h) The totals shown for Category 4 include non-zero spending on Eurostat Category 3 "Job rotation and sharing" in Finland, Germany, Italy, Spain and Sweden.

i) Includes training allowances which have not been allocated across subcategories.

j) Participants stocks for Category 5.1 "Regular employment" are not included.

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a] (*cont.*)

Programme categories and sub-categories	Germany						Greece			Hungary						Ireland					
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force		
	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004
1. PES and administration[a]	**0.24**	**0.30**	**0.29**				**..**	**..**	**..**	**..**	**0.11**	**0.10**				**0.13**[d]	**0.13**[d]	**0.12**[d]			
of which: 1.1. Placement and related services[a]	..	..	0.12				..	..	..	..	0.11	0.10				0.04	0.04	0.05			
1.2. Benefit administration[a]	..	..	0.06				..	..	..	..	..	..				0.04[e]	0.03[e]	0.03[e]			
2. Training	**0.54**[b]	**0.46**[b]	**0.36**[b]	**3.12**	**3.11**	**2.69**	**0.09**	**0.02**	**0.03**	**..**	**0.08**	**0.05**	**..**	**0.62**	**0.49**	**0.22**[f]	**0.21**[f]	**0.18**[f]	**1.42**	**1.23**	**1.36**
2.1. Institutional training	0.42	0.33	0.24	1.65	1.51	1.19	0.01	0.01	-	..	0.08	0.05	..	0.62	0.49	0.13	0.13	0.11	0.92	0.81	0.87
2.2. Workplace training	-	-	-	-	-	-	-	-	-	..	-	-	..	-	-	-	-	-	0.03	0.02	0.01
2.3. Integrated training	-	-	-	0.01	0.01	0.01	0.09	-	0.02	..	-	-	..	-	-	0.07	0.07	0.06	0.36	0.31	0.36
2.4. Special support for apprenticeship[a]	0.07	0.07	0.07	0.56	0.59	0.57	-	-	-	..	-	-	..	-	-	-	-	-	-	-	-
4. Employment incentives[a]	**0.11**[c]	**0.11**[c]	**0.09**[c]	**0.62**	**0.65**	**0.48**	**0.05**	**0.02**	**0.04**	**..**	**..**	**0.09**	**..**	**..**	**..**	**0.12**	**0.10**	**0.07**	**..**	**..**	**0.43**
4.1. Recruitment incentives	0.10	0.11	0.08	0.60	0.61	0.44	0.05	0.02	0.04	..	..	0.09	..	..	..	0.12	0.10	0.07	..	..	0.43
4.2. Employment maintenance incentives	-	-	-	-	-	-	-	-	-	..	0.01	0.01	..	..	..	-	-	-	-	..	-
5. Integration of the disabled	**0.15**[b]	**0.15**[b]	**0.15**[b]	**0.42**	**0.46**	**0.42**	**0.04**	**0.04**	**0.03**	**..**	**0.01**	**0.01**	**..**	**..**	**..**	**0.04**	**0.04**	**0.04**	**..**	**..**	**0.17**
5.1. Regular employment	0.01	0.01	0.01	0.08	0.07	0.05	0.02	0.02	0.02	..	0.01	0.01	..	..	..	0.01	0.01	0.01	..	..	0.06
5.2. Sheltered employment[a]	-	-	-	-	-	-	-	-	-	..	-	-	..	-	-	-	-	-	-	0.01	-
5.3. Other rehabilitation and training	0.13	0.14	0.13	0.32	0.36	0.34	0.02	0.01	0.01	..	-	-	..	-	0.01	0.03	0.03	0.03	..	..	0.11
6. Direct job creation	**0.19**	**0.14**	**0.13**	**0.82**	**0.63**	**0.68**	**-**	**-**	**-**	**..**	**0.06**	**0.05**	**..**	**0.50**	**0.44**	**0.29**	**0.24**	**0.20**	**..**	**1.21**	**1.26**
7. Start-up incentives	**0.05**	**0.09**	**0.13**	**0.17**	**0.34**	**0.64**	**0.01**	**0.04**	**0.06**	**..**	**0.01**	**0.01**	**..**	**0.14**	**0.13**	**-**	**-**	**-**	**0.74**	**0.53**	**0.36**
8. Out-of-work income maintenance and support[a]	**2.11**	**2.24**	**2.27**	**9.86**	**11.01**	**10.71**	**0.37**	**0.41**	**0.45**	**..**	**0.35**	**0.37**	**..**	**2.74**	**2.98**	**0.76**	**0.82**	**0.83**	**8.27**	**8.63**	**8.05**
8.1. Full unemployment benefits	1.98	2.12	2.17	9.10	10.30	10.13	0.31	0.35	0.39	..	0.35	0.37	..	2.74	2.98	0.72	0.75	0.73	8.27	8.63	8.05
of which: Unemployment insurance	1.28	1.35	1.31	4.79	5.12	4.60	0.31	0.35	0.38	..	0.35	0.35	..	2.59	2.64	0.32	0.34	0.31	4.01	4.26	3.74
8.2, 8.3. Partial and part-time unemployment benefits	0.04	0.04	0.04	0.76	0.71	0.57	0.05	0.06	0.06	..	-	-	..	-	-	-	-	-	-	-	-
8.4, 8.5. Redundancy and bankrupcy compensation	0.09	0.08	0.06	-	-	-	-	-	-	..	-	-	..	-	-	0.04	0.07	0.11	-	-	-
9. Early retirement[a]	**0.03**	**0.04**	**0.04**	**0.15**	**0.18**	**0.20**	**-**	**-**	**-**	**..**	**0.01**	**0.01**	**..**	**0.14**	**0.14**	**0.07**	**0.06**	**0.06**	**0.63**	**0.59**	**0.58**
TOTAL (1-9 ; 2-9 for stocks)	**3.41**	**3.53**	**3.46**				**..**	**..**	**..**	**..**	**..**	**0.69**				**1.63**	**1.60**	**1.51**			
Active measures (1-7)	1.28	1.25	1.14				..	..	..	..	..	0.31				0.80	0.71	0.62			
of which: Categories 1.1 plus 2-7	..	..	0.97				..	..	..	..	..	0.31				0.71	0.63	0.54			
Categories 2-7 only	1.04	0.95	0.85	5.15	5.19	4.91	0.20	0.11	0.17	..	..	0.21	..	..	..	0.67	0.59	0.49	..	..	3.58
Passive measures (8-9)	2.14	2.28	2.31	10.02	11.18	10.90	0.37	0.41	0.45	..	0.36	0.38	..	2.87	3.12	0.83	0.89	0.90	8.90	9.22	8.63

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration commonly involves more limited engagement and continues during participation in another programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.

b) Includes Länder spending which has not been allocated across subcategories.

c) The totals shown for Category 4 include non-zero spending on Eurostat Category 3 "Job rotation and sharing" in Finland, Germany, Italy, Spain and Sweden.

d) Includes staff costs (except for Training Services which appear in Category 2, and Services to Business) and overheads of FÁS (the Public Employment Service), the Local Employment Service, Job Clubs and benefit administration.

e) Secretariat estimate based on the ratio of benefit administration costs to benefits paid for a wider range of benefits (as reported in Annual Reports of DSFA, the Social Affairs ministry).

f) Includes spending on the Local Training Initiative which has not been allocated across subcategories.

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a] (*Cont.*)

Programme categories and sub-categories	Italy						Japan[e]			Korea			Luxembourg						Mexico		
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Public expenditure as a percentage of GDP			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP		
	2002	2003	2004	2002	2003	2004	2002-03	2003-04	2004-05	2003	2004	2005	2002	2003	2004	2002	2003	2004	2002	2003	2004
1. PES and administration[a]	**..**	**..**	**0.04** [b]				**0.23**	**0.23**	**0.21**	**0.02**	**0.03**	**0.03**	**0.04** [k]	**0.04** [k]	**0.04** [k]				**-** [n]	**-** [n]	**-** [n]
of which: 1.1. Placement and related services[a]	..	..	0.01				0.12 [f]	0.12 [f]	0.11 [f]	0.01	0.01	0.01	..	..	..				-	-	-
1.2. Benefit administration[a]	..	..	..				0.05 [f]	0.05 [f]	0.05 [f]	0.01	0.01	0.01	..	..	..				..	..	..
2. Training	**0.23**	**0.26**	**0.23**	**..**	**..**	**..**	**0.04**	**0.04**	**0.04**	**0.06**	**0.06**	**0.06**	**0.11**	**0.11**	**0.12**	**..**	**..**	**..**	**0.02** [o]	**0.01** [o]	**0.01** [o]
2.1. Institutional training	-	0.01	0.01	..	..	..	0.04 [g]	0.04 [g]	0.03 [g]	0.06 [i]	0.06 [i]	0.06 [i]	0.02 [m]	0.02 [m]	0.01 [m]	..	..	..	-	-	-
2.2. Workplace training	0.06	0.04	0.03	..	..	0.52	-	-	-	-	-	-	0.08	0.08	0.09	..	..	..	-	-	-
2.3. Integrated training	-	-	-	..	..	..	-	-	-	-	-	-	0.01	0.01	0.01	0.06	0.07	0.12	-	-	-
2.4. Special support for apprenticeship[a]	0.13 [c]	0.15 [c]	0.15 [c]	1.85	1.83	2.12	-	-	-	- [j]	- [j]	- [j]	-	-	-	..	..	..	-	-	-
4. Employment incentives[a]	**0.37**	**0.34**	**0.25**	**..**	**..**	**3.13**	**0.02**	**0.02**	**0.02**	**0.01**	**0.01**	**0.01**	**0.05**	**0.06**	**0.10**	**..**	**..**	**..**	**-**	**-**	**-**
4.1. Recruitment incentives	0.36 [d]	0.34 [d]	0.25 [d]	..	..	..	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	..	..	..	-	-	-
4.2. Employment maintenance incentives	-	-	-	0.11	0.01	0.01	0.01	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Integration of the disabled	**0.01**	**0.01**	**0.01**	**0.06**	**0.07**	**0.08**	**0.01**	**0.01**	**0.01**	**0.03**	**0.03**	**0.02**	**0.03**	**0.03**	**0.05**	**..**	**..**	**..**	**-**	**-**	**-**
5.1. Regular employment	0.01	0.01	0.01	0.06	0.07	0.08	0.01	0.01	-	0.02	0.02	0.02	0.03	0.03	0.05	..	..	..	-	-	-
5.2. Sheltered employment[a]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.3. Other rehabilitation and training	-	-	-	-	-	-	-	-	-	0.01	0.01	-	-	-	-	..	..	..	-	-	-
6. Direct job creation	**0.04**	**0.03**	**0.01**	**0.30**	**0.24**	**0.21**	**-**	**-**	**-**	**0.01**	**0.01**	**-**	**0.03**	**0.03**	**0.03**	**0.19**	**0.21**	**0.22**	**0.02**	**0.01**	**0.01**
7. Start-up incentives	**0.03**	**0.05**	**0.05**	**0.07**	**0.12**	**0.08**	**-**	**-**	**-**	**0.01**	**0.01**	**-**	**-**	**-**	**-**	**..**	**..**	**..**	**0.01** [p]	**0.01** [p]	**0.01** [p]
8. Out-of-work income maintenance and support[a]	**..**	**0.56**	**0.66**	**..**	**2.49**	**2.56**	**0.49** [h]	**0.48** [h]	**0.46** [h]	**0.14**	**0.19**	**0.22**	**0.31**	**0.43**	**0.47**	**..**	**..**	**..**	**-**	**-**	**-**
8.1. Full unemployment benefits	..	0.47	0.56	..	1.95	2.02	..	..	..	-	-	-	0.26	0.38	0.43	1.44	2.02	2.41	-	-	-
of which: Unemployment insurance	0.49	0.42	0.48	1.78	1.92	1.97	..	..	..	-	-	-	..	..	..	..	..	..	-	-	-
8.2, 8.3. Partial and part-time unemployment benefits	0.07	0.09	0.11	..	0.54	0.54	..	..	..	-	-	-	0.02	0.03	0.02	..	..	..	-	-	-
8.4, 8.5. Redundancy and bankrupcy compensation	-	-	-	-	-	-	-	0.01	-	-	-	-	0.03	0.02	0.02	-	-	..	-	-	-
9. Early retirement[a]	**0.10**	**0.11**	**0.10**	**0.54**	**0.42**	**0.36**	**-**	**-**	**-**	**-**	**-**	**-**	**0.22**	**0.21**	**0.22**	**0.64**	**0.64**	**0.67**	**-**	**-**	**-**
TOTAL (1-9 ; 2-9 for stocks)	**..**	**..**	**1.35** [b]				**0.78**	**0.78**	**0.73**	**0.28**	**0.34**	**0.34**	**0.78**	**0.90**	**1.02**				**0.06**	**0.03**	**0.03**
Active measures (1-7)	..	..	0.59				0.29	0.30	0.28	0.14	0.15	0.13	0.25	0.26	0.33				0.06	0.03	0.03
of which: Categories 1.1 plus 2-7	..	..	0.55				0.19	0.19	0.18	0.13	0.13	0.11	..	..	..				0.05	0.03	0.03
Categories 2-7 only	0.66	0.68	0.55	..	..	..	0.07 [i]	0.07 [i]	0.06 [i]	0.12	0.12	0.10	0.21	0.22	0.29	..	..	..	0.05	0.03	0.03
Passive measures (8-9)	..	0.66 [b]	0.76 [b]	..	2.91	2.92	0.49 [h]	0.47 [h]	0.46 [h]	0.14	0.19	0.22	0.53	0.64	0.69	..	..	..	-	-	-

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration commonly involves more limited engagement and continues during participation in another programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.

b) Costs of benefit administration are not included.

c) Mainly exemptions from employer social security contributions, not restricted to the unemployed or those at risk. "Training post compulsory education and post diploma" is included in Category 2 but not in this subcategory.

d) Much spending in this category refers to tax relief for firms that have increased total employment and for the conversion of temporary contracts into permanent ones, not otherwise conditional on employment status.

e) Fiscal years starting on April 1.

f) Secretariat estimate based on the distribution of PES staff in 2005 (approximately 6 400 staff working on placement and counselling and 2 700 on benefit administration, from a total of 12 000).

g) Includes education and training grants, but not unemployment benefits paid to programme participants.

h) Education and training grants paid to participants in institutional training (Category 2.1) are included in the total for Category 8 but excluded from the total for "Passive measures (8-9)".

i) Includes about 60% (the estimated share of training spending that relates to training for the unemployed) of public funds for Korea Technical Education University (training for trainers) and the Korea Manpower Agency and Polytechnic College (operating costs of training); revision of figures previously published.

j) Excludes general apprenticeship measures (revision of figures previously published).

k) The budget of ADEM (the Public Employment Service) which is responsible for placement, benefit administration, labour market programme administration and certain related services.

m) The programmes "Training for entering or re-entering the labour market" and "Vocational retraining (workers)", as reported in the accounts of the Fonds pour l'emploi.

n) 0.002% of GDP.

o) Includes a number of programmes not allocated across subcategories.

p) Refers to the Productive Options programme which provides business start-up support and is targeted on poverty, not necessarily unemployment.

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a] (*cont.*)

Programme categories and sub-categories	Netherlands						New Zealand[f]						Norway						Poland					
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force		
	2002	2003	2004	2002	2003	2004	2002-03	2003-04	2004-05	2002-03	2003-04	2004-05	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004
1. PES and administration[a]	**0.32**	**0.34**	**0.32**				**0.10**	**0.12**	**0.12**				**0.13**	**0.12**	**0.13**				**..**	**..**	**..**			
of which: 1.1. Placement and related services[a]	0.09	0.09	0.07				0.03	0.02	0.02				-	-	-				..	..	..			
1.2. Benefit administration[a]	0.22 [b]	0.24 [b]	0.24 [b]				0.05	0.07	0.07				0.03 [j]	0.02 [j]	0.02 [j]				..	..	..			
2. Training	**0.24** [c]	**0.33** [c]	**0.36** [c]	**3.81**	**7.78**	**8.74**	**0.19** [g]	**0.19** [g]	**0.18** [g]	**0.45**	**0.92**	**0.91**	**0.08**	**0.09**	**0.09**	**0.36**	**0.48**	**0.52**	**0.05**	**0.04**	**0.03**	**1.32**	**0.87**	**0.73**
2.1. Institutional training	0.02	0.02	0.01	0.19	0.16	0.11	0.08	0.08	0.08	0.31	0.30	0.27	0.06	0.07	0.07	0.23	0.25	0.28	0.01	0.01	0.01	0.10	0.20	0.19
2.2. Workplace training	0.02	0.03	0.05	1.24	2.91	3.16	0.01	-	-	-	-	-	0.01	0.02	0.02	0.13	0.22	0.24	-	-	-	-	-	-
2.3. Integrated training	0.06	0.09	0.10	1.31	2.00	2.50	0.11	0.11	0.10	..	0.63	0.64	-	-	-	-	-	-	-	-	-	-	-	-
2.4. Special support for apprenticeship[a]	0.04 [d]	0.04 [d]	0.04 [d]	1.00	1.01	1.03	-	-	-	-	-	-	-	-	-	-	-	-	0.04	0.03	0.02	1.22	0.67	0.55
4. Employment incentives[a]	**0.05**	**0.03**	**0.03**	**0.95**	**0.74**	**0.58**	**0.04**	**0.04**	**0.03**	**..**	**..**	**..**	**0.01**	**0.03**	**0.03**	**0.07**	**0.11**	**0.12**	**0.03**	**0.06**	**0.06**	**..**	**..**	**..**
4.1. Recruitment incentives	0.05	0.03	0.03	0.95	0.73	0.57	0.04	0.03	0.03	..	..	..	0.01	0.03	0.03	0.07	0.11	0.12	0.03	0.06	0.06	..	..	..
4.2. Employment maintenance incentives	-	-	-	-	-	-	-	-	-	..	..	..	-	-	-	-	-	-	-	-	-	-	-	-
5. Integration of the disabled	**0.60**		**0.56**	**2.43**	**2.30**	**2.11**	**0.04**	**0.05**	**0.06**	**0.99**	**1.31**	**1.27**	**0.50**	**0.55**	**0.54**	**1.76**	**2.07**	**2.04**	**0.02**	**0.03**	**0.03**	**-**	**-**	**-**
5.1. Regular employment	-	-	-	-	-	-	0.02	0.02	0.02	0.34	0.47	0.55	0.12	0.14	0.15	0.51	0.62	0.63	0.02	-	-	-	-	-
5.2. Sheltered employment[a]	0.45	0.45	0.45	1.15	1.15	1.17	-	-	-	0.11	0.11	0.10	0.05	0.08	0.08	0.17	0.22	0.23	-	0.01	0.01	-	-	-
5.3. Other rehabilitation and training	0.16	0.14	0.11	1.28	1.15	0.94	0.02	0.02	0.03	0.55	0.73	0.62	0.33 [k]	0.33 [k]	0.31 [k]	1.08	1.22	1.17	-	0.01	0.01	-	-	-
6. Direct job creation	**0.27**	**0.23**	**0.18**	**0.62**	**0.85**	**0.60**	**0.01**	**0.01**	**0.01**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.02**	**0.06**	**0.06**	**0.14**	**0.39**	**0.35**
7. Start-up incentives	**-**	**-**	**-**	**-**	**-**	**-**	**0.04**	**0.03**	**0.02**	**-**	**-**	**-**	**-**	**-**	**-**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**0.01**	**..**	**..**	**..**
8. Out-of-work income maintenance and support[a]	**1.82** [e]	**2.02** [e]	**2.23** [e]	**9.08**	**10.08**	**10.18**	**0.94** [h]	**0.77** [h]	**0.54** [h]	**7.22**	**6.00**	**3.23**	**0.67** [l]	**0.87** [l]	**0.86** [l]	**3.90**	**4.41**	**4.79**	**0.61**	**0.50**	**0.40**	**3.53**	**2.96**	**2.66**
8.1. Full unemployment benefits	1.82 [e]	2.02 [e]	2.23 [e]	9.08	10.08	10.49	0.94 [h]	0.77 [h]	0.54 [h]	7.22	6.00	3.23	0.67	0.63	0.66	0.96	0.66	1.01	0.55	0.46	0.38	3.36	2.87	2.62
of which: Unemployment insurance	0.83	1.01	1.12	3.72	4.57	4.98	-	-	-	-	-	-	0.54	0.48	0.45	-	-	-	0.55	0.46	0.38	3.36	2.87	2.62
8.2, 8.3. Partial and part-time unemployment benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	0.12	-	-	-	-	-	-	-	-	-
8.4, 8.5. Redundancy and bankrupcy compensation	-	-	-	-	-	-	-	-	-	-	-	-	-	0.12	0.08	-	-	-	0.06	0.04	0.02	0.17	0.09	0.05
9. Early retirement[a]	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.23**	**0.29**	**0.39**	**0.79**	**1.11**	**1.76**
TOTAL (1-9 ; 2-9 for stocks)	**3.30**	**3.54**	**3.67**				**1.36**	**1.21**	**0.96**				**1.38**	**1.67**	**1.65**				**..**	**..**	**..**			
Active measures (1-7)	1.47	1.52	1.44				0.42	0.44	0.42				0.71	0.80	0.79				..	..	..			
of which: Categories 1.1 plus 2-7	1.25	1.27	1.20				0.35	0.34	0.31				0.59	0.67	0.66				..	..	..			
Categories 2-7 only	1.16	1.18	1.12	7.81	11.68	12.03	0.32	0.32	0.30	1.45 [i]	2.23 [i]	2.17 [i]	0.59	0.67	0.66	2.19	2.66	2.70	0.13	0.21	0.19	..	..	..
Passive measures (8-9)	1.82	2.02	2.23	9.08	10.08	10.18	0.94	0.77	0.54	7.22	6.00	3.23	0.67	0.87	0.86	3.90	4.41	4.79	0.85	0.79	0.80	4.33	4.07	4.43

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration commonly involves more limited engagement and continues during participation in another programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.

b) Includes spending by benefit organisations on the administration of reintegration measures.

c) Includes the budget of the "comprehensive approach", which has not been allocated across subcategories. Does not include unemployment benefits paid to participants in training (data differ from those published previously).

d) Employer tax reductions payable for every apprentice who does not earn more than 130% of the minimum wage.

e) Includes social assistance benefits paid to inactive as well as unemployed recipients. Includes unemployment and social assistance benefits paid to participants in active programmes.

f) Fiscal years starting on July 1st.

g) Includes Training Benefits (often paid to participants in Integrated training, Category 2.3) and Training Incentive Allowance which covers course fees and related expenses, but not unemployment benefits which are paid to many other participants.

h) Excludes Training Benefits and includes unemployment benefits paid to participants in active programmes.

i) Participant stocks for Category 4 "Employment incentives" are not included.

j) Includes the administration costs of rehabilitation benefits.

k) Mainly income support payments to participants in education in regular schools.

l) Includes rehabilitation benefits paid in between rehabilitation measures, but excludes unemployment and rehabilitation benefits paid to participants in active programmes.

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a] (*cont.*)

Programme categories and sub-categories	Portugal						Slovak Republic						Spain[d]						Sweden					
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force[g]			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force		
	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004	2002	2003	2004
1. PES and administration[a]	**0.16**	**0.16**	**0.15**				..	..	..				**0.06**	**0.05**	**0.08**				**0.25**	**0.24**	**0.24**			
of which: 1.1. Placement and related services[a]	..	0.04	0.03				..	..	0.08				..	0.03	0.03				..	0.09	0.09			
1.2. Benefit administration[a]	0.03 [b]	0.04 [b]	0.04 [b]				..	..	..				..	0.02	0.02				0.05 [h]	0.05 [h]	0.04 [h]			
2. Training	**0.17**	**0.27**	**0.29**	**0.39**	**0.80**	**0.69**	..	..	**0.01**	..	..	**0.18**	**0.14** [d]	**0.14** [d]	**0.16** [d]	..	**1.24**	**0.98**	**0.65** [i]	**0.39** [i]	**0.35** [i]	**4.19**	**1.17**	**1.23**
2.1. Institutional training	0.09	0.15	0.17	0.13	0.33	..	..	..	0.01	..	..	0.18	0.09	0.10	0.10	..	1.00	0.82	0.49	0.24	0.20	3.46	0.55	0.54
2.2. Workplace training	0.03	0.03	0.03	0.12	0.11	..	..	..	-	..	..	-	-	-	0.01	..	0.07	0.01	-	-	-	0.01	0.01	0.01
2.3. Integrated training	0.01	0.01	-	0.03	0.03	..	..	..	-	..	..	-	-	0.01	0.02	..	-	0.01	-	-	-	-	-	-
2.4. Special support for apprenticeship[a]	0.04	0.08	0.08	0.05	0.27	..	..	..	-	..	..	-	0.04	0.03	0.03	..	0.14	0.11	-	-	-	-	-	-
4. Employment incentives[a]	**0.17**	**0.15**	**0.17**	..	..	..	..	..	**0.01**	..	..	**0.22**	**0.27** [e]	**0.25** [e]	**0.26** [e]	..	**8.72**	**7.72**	**0.21** [e]	**0.15** [e]	**0.19** [e]	**1.05**	**0.73**	**0.99**
4.1. Recruitment incentives	0.16	0.15	0.16	..	..	..	..	..	0.01	..	..	0.22	**0.26** [f]	**0.24** [f]	**0.25** [f]	..	8.52	7.63	0.20	0.15	0.19	0.98	0.73	0.97
4.2. Employment maintenance incentives	-	-	-	-	..	..	..	..	-	..	..	-	-	-	-	..	-	-	-	-	-	-	-	-
5. Integration of the disabled	**0.04**	**0.05**	**0.05**	..	..	..	..	..	-	..	..	..	**0.06**	**0.07**	**0.07**	..	**0.58**	**0.58**	**0.47**	**0.46**	**0.43**	**1.87**	**1.86**	**1.81**
5.1. Regular employment	-	-	-	..	..	..	..	..	-	..	..	-	0.03	0.04	0.04	..	0.38	0.39	0.26	0.26	0.24	1.20	1.23	1.20
5.2. Sheltered employment[a]	-	-	-	0.01	0.01	0.01	..	..	-	..	..	-	0.03	0.03	0.03	..	0.19	0.18	0.21	0.20	0.20	0.67	0.63	0.61
5.3. Other rehabilitation and training	0.04	0.04	0.04	..	..	..	..	..	-	..	..	-	-	-	-	..	0.01	-	-	-	-	-	-	-
6. Direct job creation	**0.04**	**0.04**	**0.04**	..	**0.42**	**0.43**	..	..	**0.04**	..	..	**3.78**	**0.10**	**0.11**	**0.11**	..	..	..	-	-	-	-	-	-
7. Start-up incentives	-	-	-	-	-	-	..	..	**0.02**	..	..	**0.11**	**0.05**	**0.05**	**0.04**	..	..	**0.04**	**0.04**	**0.04**	**0.03**	**0.16**	**0.12**	**0.12**
8. Out-of-work income maintenance and support[a]	**0.81**	**1.05**	**1.11**	**6.88**	**4.59**	..	..	..	**0.31** [c]	..	..	**2.96**	**1.45**	**1.44**	**1.47**	..	**6.41**	**6.26**	**1.02**	**1.21**	**1.32**	**6.51**	**7.28**	**7.90**
8.1. Full unemployment benefits	0.80	1.04	1.09	6.88	4.59	5.33	..	..	0.30 [c]	..	..	2.82	1.42	1.41	1.44	..	6.40	6.25	0.67	0.80	0.88	3.32	4.12	4.50
of which: Unemployment insurance	0.59	0.80	0.90	3.98	3.04	3.92	..	..	0.30	..	..	2.82	1.01	1.05	1.08	3.07	3.34	3.28	0.67 [j]	0.80 [j]	0.88 [j]	3.32	4.12	4.50
8.2, 8.3. Partial and part-time unemployment benefits	-	-	-	-	-	-	..	..	-	..	..	-	0.01	0.01	-	..	0.01	0.01	0.29	0.34	0.38	3.19	3.15	3.40
8.4, 8.5. Redundancy and bankrupcy compensation	0.01	0.01	0.02	-	-	-	..	..	0.01	..	..	0.14	0.03	0.02	0.03	..	-	-	0.07	0.06	0.05	-	-	-
9. Early retirement[a]	**0.34**	**0.16**	**0.20**	**1.22**	**0.65**	**0.62**	..	..	**0.01**	..	..	**0.16**	**0.02**	**0.02**	**0.03**	..	**0.09**	**0.12**	**0.01**	-	-	**0.09**	-	-
TOTAL (1-9 ; 2-9 for stocks)	**1.73**	**1.89**	**2.02**				..	..	..				**2.15**	**2.13**	**2.22**				**2.65**	**2.48**	**2.56**			
Active measures (1-7)	0.58	0.67	0.70				..	..	..				0.67	0.67	0.72				1.62	1.27	1.24			
of which: Categories 1.1 plus 2-7	..	0.55	0.58				..	..	0.15				..	0.64	0.67				..	1.12	1.09			
Categories 2-7 only	0.43	0.51	0.55	..	..	..	..	..	0.07	..	..	..	0.62	0.62	0.64	..	..	..	1.37	1.03	1.00	7.27	3.88	4.16
Passive measures (8-9)	1.15	1.21	1.31	8.10	5.24	..	..	..	0.32 [c]	..	..	3.12	1.47	1.46	1.50	..	6.50	6.37	1.04	1.21	1.32	6.60	7.28	7.90

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration commonly involves more limited engagement and continues during participation in another programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.

b) Secretariat estimate based on the 2001 ratio of benefit administration costs to benefits paid (3.5%) for a wider range of benefits (reported in IGFSS, *Conta da Segurança Social – 2001*).

c) Does not include social assistance, which is the form of income support received by the majority of registered unemployed.

d) Categories 2, 4, 6 and 7 include expenditure by the Autonomous Communities and municipalities (additional to data published by Eurostat). Particularly in Category 2, some of this expenditure has not been allocated across subcategories.

e) The totals shown for Category 4 include non-zero spending on Eurostat Category 3 "Job rotation and sharing" in Finland, Germany, Italy, Spain and Sweden.

f) Includes an employer subsidy for the converson of temporary contracts into permanent contracts, not otherwise conditinal on employment status.

g) Participant stock data do not include participants in municipal programmes.

h) Administration costs of independant unemployment insurance funds.

i) Includes income support payments to participants in employability rehabilitation and the Activity Guarantee, which have not been allocated across subcategories.

j) Includes "basic insurance" which is not a contribution-based benefit.

Table H. **Public expenditure and participant stocks* in labour market programmes in OECD countries**[a] (*cont.*)

Programme categories and sub-categories	Switzerland						United Kingdom[e]						United States[g]		
	Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP			Participant stocks as a percentage of the labour force			Public expenditure as a percentage of GDP		
	2002	2003	2004	2002	2003	2004	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04	2001-02	2002-03	2003-04
1. PES and administration[a]	**0.11**	**0.13**	**0.13**				**..**	**0.38**	**0.36**				**0.04**	**0.04**	**0.04**
of which: 1.1. Placement and related services[a]	..	..	..				0.19	0.23	0.27				0.01	0.01	0.01
1.2. Benefit administration[a]	0.04	0.04	0.04				..	0.15	0.09				0.03 [i]	0.03 [i]	0.03 [i]
2. Training	**0.20**	**0.28**	**0.30**	**0.61**	**0.84**	**0.94**	**0.13**	**0.13**	**0.13**	**1.05**	**1.15**	**1.21**	**0.06**	**0.06**	**0.05**
2.1. Institutional training	0.20	0.27	0.29	0.60	0.82	0.91	0.01	0.01	0.01	0.04	0.05	0.03	0.03	0.02	0.02
2.2. Workplace training	-	0.01	0.01	0.01	0.02	0.03	0.01	0.01	-	-	-	-	-	-	-
2.3. Integrated training	-	-	-	-	-	-	0.01	0.01	0.02		0.07	0.09	0.03	0.03	0.03
2.4. Special support for apprenticeship[a]	-	-	-	-	-	-	0.10 [f]	0.10 [f]	0.10 [f]	0.94	1.03	1.10	-	-	-
4. Employment incentives[a]	**0.04**	**0.07**	**0.08**	**0.38**	**0.56**	**0.66**	**0.01**	**-**	**-**	**..**	**0.01**	**0.01**	**-**	**-**	**-**
4.1. Recruitment incentives	0.04 [b]	0.07 [b]	0.08 [b]	0.38	0.56	0.66	0.01	-	-	..	0.01	0.01	-	-	-
4.2. Employment maintenance incentives	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5. Integration of the disabled	**0.23**	**0.24**	**0.25**	**0.79**	**1.37**	**0.84**	**0.02**	**0.02**	**0.02**	**0.26** [h]	**0.34** [h]	**0.50** [h]	**0.03**	**0.03**	**0.03**
5.1. Regular employment	0.14	0.15	0.16	0.79	0.81	0.84	-	0.01	0.01	0.15	0.14	0.08	-	-	-
5.2. Sheltered employment[a]	0.09	0.09	0.09	-	0.56	-	-	-	0.01	0.02	0.02	-	-	-	-
5.3. Other rehabilitation and training	-	-	-	-	-	-	-	-	0.01	0.09	0.18	0.33	0.03	0.03	0.03
6. Direct job creation	**-**	**-**	**-**	**-**	**-**	**-**	**0.01**	**0.01**	**-**	**0.04**	**0.01**	**0.02**	**0.01**	**0.01**	**0.01**
7. Start-up incentives	**-**	**0.01**	**0.01**	**0.01**	**0.02**	**0.02**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
8. Out-of-work income maintenance and support[a]	**0.77**	**1.08**	**1.03**	**2.80**	**3.75**	**3.76**	**0.37**	**0.35**	**0.29**	**3.28**	**3.18**	**2.88**	**0.49**	**0.51**	**0.37**
8.1. Full unemployment benefits	0.70 [c]	1.01 [c]	0.99 [c]	2.42	3.38	3.55	0.37	0.35	0.29	3.28	3.18	2.88	0.49	0.51	0.37
of which: Unemployment insurance	0.64	0.95	0.94	2.42	3.38	3.55	..	..	..	..	..	..	0.49	0.51	0.37
8.2, 8.3. Partial and part-time unemployment benefits	0.05 [d]	0.06 [d]	0.03 [d]	0.34	0.35	0.19	-	-	-	-	-	-	-	-	-
8.4, 8.5. Redundancy and bankrupcy compensation	0.01	0.01	0.01	0.04	0.02	0.02	-	-	-	-	-	-	-	-	-
9. Early retirement[a]	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
TOTAL (1-9 ; 2-9 for stocks)	**1.36**	**1.80**	**1.81**				**..**	**0.88**	**0.81**				**0.67**	**0.68**	**0.53**
Active measures (1-7)	0.60	0.72	0.78				..	0.54	0.52				0.18 [j]	0.17 [j]	0.16 [j]
of which: Categories 1.1 plus 2-7	..	..	..				0.35	0.39	0.43				0.15 [j]	0.14 [j]	0.13 [j]
Categories 2-7 only	0.48	0.59	0.64	1.80	2.78	2.46	0.16	0.16	0.16	..	1.52	1.75	0.13 [j]	0.13 [j]	0.12 [j]
Passive measures (8-9)	0.77	1.08	1.03	2.80	3.75	3.76	0.37	0.35	0.29	3.28	3.18	2.88	0.49	0.51	0.37

PES: Public employment service.

* Data for participant stocks are reported only for Categories 2 to 9 since jobseeker registration commonly involves more limited engagement and continues during participation in another programme. Totals shown must be interpreted with caution.

a) See the introductory note about scope, comparability and the coverage of particular programme categories at www.oecd.org/els/employmentoutlook/statannex.
b) Mainly the "intermediate earnings" programme, which resembles regular unemployment benefit at a reduced rate in the case of part-time work or earnings.
c) Excludes unemployment benefits paid to participants in active programmes.
d) Short-time working allowance and bad weather allowance (previously classsified to Category 4.2).
e) Excluding Northern Ireland. Fiscal years starting on April 1st.
f) Work-based training for people not continuing in full-time education at age 16, not necessarily unemployed.
g) Fiscal years starting on October 1st.
h) Participant stock data include Employment Rehabilitation (work preparation), which has not been allocated across subcategories, in 2003-4 but not earlier years.
i) Mainly costs of running unemployment insurance offices. Also includes various national activities such as information, research and evaluation.
j) Includes TANF work-related activities (0.02% of GDP). Other TANF expenditure (0.20% of GDP) on child care, transport, family and social work, etc., administration and cash benefits is not included.

Source: For EU countries except Poland and for Norway, except as noted: Eurostat (2006), *Labour Market Policy and Participants: Data 2004* and detailed underlying data supplied to OECD by Eurostat. For other countries: OECD database on labour market programmes.

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