

Employment in Europe 2010



Social Europe



Country acronyms in tables and charts

EU Member States

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain
FI	Finland
FR	France
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta
NL	The Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

Further afield

AU	Australia
JP	Japan
US	United States

Employment in Europe 2010

European Commission

Directorate-General for Employment, Social Affairs and Equal Opportunities

Unit D.1

Manuscript completed in October 2010

ACKNOWLEDGEMENTS

The "Employment in Europe 2010" report was prepared by the Directorate-General for Employment, Social Affairs and Equal Opportunities; Employment Analysis Unit. Principal authors on this report include Matteo Governatori, Magdalena Grzegorzewska, João Medeiros, Eric Meyermans, Paul Minty, Jörg Peschner, and Johan Van der Valk (Eurostat). Important contributions were also provided by John Hurley (Eurofound) and Frédéric Lagneaux.

DG EMPL would also like to thank Eurostat and Eurofound's European Monitoring Centre on Change for their close collaboration and support in preparing the report. Comments from other services of the Commission are gratefully acknowledged.

Comments on the report would be gratefully received and should be sent to:

Unit D1

Directorate-General for Employment, Social Affairs and Equal Opportunities

Office J-27 05/80

B-1049 Brussels

E-mail: Empl-d1-unit@ec.europa.eu



Cover photos: 1, 2, 3, 5: © 123RF; 4: © iStock

For any use or reproduction of photos which are not under European Communities copyright, permission must be sought directly from the copyright holder(s).

Please note that the "Employment in Europe 2010" report is now also available as a user-friendly, navigable html-version at <http://ec.europa.eu/social/main.jsp?catId=119&langId=en>

Europe Direct is a service to help you
find answers to your questions about
the European Union

Freephone number (*):
00 800 6 7 8 9 10 11

(*): Certain mobile telephone operators do not allow access
to 00 800 numbers or these calls may be billed.

A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (<http://europa.eu>).

Cataloguing data can be found at the end of this publication.

Luxembourg: Publications Office of the European Union, 2010

ISBN 978-92-79-16795-9

doi:10.2767/72770

© European Union, 2010

Reproduction is authorised provided the source is acknowledged.

Printed in Belgium

PRINTED ON ELEMENTAL CHLORINE-FREE BLEACHED PAPER (ECF)

Foreword

This year's *Employment in Europe* report, the 22nd in the series, comes at a particularly important time for the European Union. Despite moderate signs of economic recovery, European labour markets are still suffering from the aftermath of the economic crisis and they will continue to need to be supported by appropriate crisis exit strategies. Moreover, we need to reformulate policy priorities for the post-2010 period in line with the framework set by the Europe 2020 Strategy.

European labour markets will emerge from the crisis profoundly changed; workers must be given the incentives and tools to successfully adjust to new realities in order to retain or find quality jobs. Action is needed to enhance skills at all levels and to set the conditions for the creation of new jobs. In this respect, flexicurity is still the right framework to modernise labour markets and help foster job-creating recovery.

The *Employment in Europe* report is one of the tools to support the design and implementation of Member States' employment policies. This year's report focuses on two major themes that reflect the current priorities of employment policies at EU level.

The first theme is an assessment of the labour market adjustments since the onset of the crisis. This is complemented by an analysis of the policy measures implemented by the Member States to mitigate the employment effects of the crisis and to support recovery. It draws on the close monitoring of labour market developments undertaken by the Commission, as well as on the ongoing analysis of the employment policy responses to the crisis, both at Member State and EU levels. In particular, the report examines the extent to which labour market recovery measures have contributed so far to alleviating the negative spill-over effects of the global downturn on labour markets. Although the situation and the constraints differ significantly across countries, this type of assessment allows Member States to learn from each other as they work towards their common employment objectives.

The second theme reflects an important aspect of the flexicurity approach to labour markets, particularly given the impact of the economic crisis. It is vital to overcome the segmentation of the labour markets, as well as, more specifically, the employment situation of young people in Europe. Young workers with temporary contracts have been particularly hard hit by the recession in a number of Member States. Indeed, many have been disproportionately affected by decreasing employment levels.

In many cases, temporary work, which rose during the years prior to the recession, does not lead to stable and higher paid jobs, but instead "traps" workers in a recurring sequence of temporary jobs with frequent unemployment spells in between. The recent crisis has highlighted the flaws of a policy strategy that fosters employment growth almost exclusively through the development of temporary and other forms of 'atypical' contracts. Such strategies increase employment volatility and the risk of low economic growth due to insufficient investment in human capital. It is therefore important to promote policies creating stable employment. This can be achieved, for example, by introducing fiscal incentives for companies to hire permanent workers and to convert temporary contracts into permanent ones.

The findings of *Employment in Europe 2010* are, in my view, highly relevant to the current EU policy debate. I trust that readers, as with previous editions, will find the report thought-provoking and a motivating force for new ideas and solutions to the challenges that face us all.



László Andor

Commissioner for Employment, Social Affairs and Inclusion

Contents

Foreword	3
Executive summary	9
Chapter 1: EU labour markets in time of economic crisis – relatively resilient, but persisting weakness and slow jobs recovery expected . . .	17
1. Introduction	17
2. Economic and labour market developments during the crisis	18
2.1. Economic activity	19
2.1.1. Developments in GDP	19
2.2. How has the labour market adjusted during the crisis?	22
2.2.1. Labour demand	22
2.2.2. Employment	24
2.2.3. Unemployment	34
2.2.4. Other labour market responses to the economic downturn	40
2.2.5. The impact on productivity and real unit labour costs	49
3. Which population subgroups have been most affected? - The impact of the crisis across various population subgroups	52
3.1. Employment rate developments	52
3.2. Changes in employment levels	53
3.3. Unemployment	54
3.4. Long-term unemployment	61
4. Outlook	62
5. Longer term trends and panorama of annual indicators for EU labour markets in 2009 . . .	64
5.1. EU labour market in 2009 from a global perspective	64
5.2. Labour market situation in the EU and in Member States in 2009	65
5.2.1. Employment rate	65
5.2.2. Activity rate	69
5.2.3. Unemployment	69
5.2.4. Contractual arrangements	71
6. Summary and conclusions	72

Chapter 2: On the path to recovery: a review of labour market measures	75
1. Introduction	75
2. A framework for analysis	75
2.1. The policy context	75
2.2. A set of evaluation criteria	76
3. Maintaining employment, creating jobs and promoting mobility	77
3.1. Short-time working arrangements	78
3.1.1. Scope and limitations	78
3.1.2. Main changes in response to the crisis	80
3.1.3. The effectiveness of STWA	81
3.1.4. A case study: the impact of 'Kurzarbeitergeld' in Germany.	82
3.1.5. An econometric analysis	83
3.2. Temporary wage subsidies	83
3.3. Reductions in non-wage costs	86
3.4. Public sector employment	86
3.5. Promoting self-employment and business start-ups	87
3.6. Promoting mobility and balancing migration	90
4. Upgrading of skills and labour market matching	90
4.1. Skill formation	90
4.2. Labour market matching	92
5. Increasing access to employment and supporting household income	93
6. Assessment of the crisis-related measures	94
6.1. Stocktaking: The crisis, government intervention and employment	94
6.2. Potential medium-term impact: A micro-model simulation	95
6.2.1. Objective of the exercise	95
6.2.2. In-work subsidisation paid workers across all ages	96
6.2.3. In-work subsidisation restricted to young workers	99
6.2.4. Tentative conclusions from the micro-model simulation	99
6.3. Policy considerations	100
7. Employment policy actions beyond 2010	101
7.1. Phasing out crisis-related labour market measures.	101
7.2. Reduce structural unemployment and increase labour market participation	101
7.3. Support specific groups of employees	102
7.3.1. Older workers	102
7.3.2. Women	102
7.3.3. Youth	103
7.3.4. People on non-standard contracts	103
7.3.5. Jobless people	103
7.4. Invest in skills upgrading and strengthen labour market matching.	103
8. Conclusions	104
References	105

Annex 1 : Recipients of short-time working allowance: stocks or flows	108
Annex 2: The EU Commission’s Labour Market Model (LMM)	113
1. Background	113
2. An outline of LMM	113
2.1. General Microeconomic Framework	113
2.2. Distinctive features of LMM	113
3. Scope and limitations of LMM	114
4. Main behavioural patterns (optimisation)	114
4.1. Workers and mixed group	114
4.2. Pensioners	115
4.3. Firms	115
 Chapter 3: Youth and segmentation in EU labour markets	 117
1. Introduction	117
2. Young people in the labour market: some stylised facts	118
3. Temporary contracts and dual labour markets	121
3.1. Two-tier reforms of employment protection legislation	121
3.2. Two-tier EPL and the growth of temporary work	123
4. Segmentation and youth	125
4.1. Incidence of temporary work for young workers	125
4.2. Temporary contracts and hiring	126
5. School-to-work transitions and youth Not in Employment, Education or Training (NEET)	129
5.1. Youth employment rates after leaving initial education	129
5.2. Youth Not in Education, Employment or Training (NEET)	130
5.3. Does youth unemployment produce blemishes or lasting scars?	132
6. Segmentation, wages and human capital formation	133
6.1. Segmentation and wages	133
6.2. Segmentation, on-the-job training and further education	134
7. Segmentation and labour market transitions	139
7.1. Segmentation increases job separations	139
7.2. Segmentation, labour flows and long-term unemployment	139
7.3. Segmentation and transitions from temporary to permanent employment	140
7.4. Determinants of labour market and pay transitions	142
8. Temporary contracts and employment volatility	146
8.1. The ‘honeymoon effect’ of two-tier reforms	146
8.2. Business cycle volatility, youth and temporary employment	146
9. Conclusions and policy recommendations	151
References	153
 Statistical annex	 155
1. Data sources and definitions	155
2. Macro economic indicators	158
3. Key employment indicators	165

Executive summary

EU LABOUR MARKETS IN TIME OF ECONOMIC CRISIS

The unprecedented crisis in global financial markets which gathered pace in autumn 2008 led to the most severe recession since the Second World War, affecting the wider economy and strongly impacting on labour markets in the EU. Indeed, the crisis wiped out much of the steady gain in economic growth and reduction in unemployment witnessed over the last decade – EU GDP fell by 4.2% in 2009, industrial production dropped back to the levels of the late 1990s and employment levels fell by 1.8%. As a result, 23 million people - or close to 10% of the economically active population - are now unemployed.

Although EU labour markets have been strongly affected by the crisis, overall job losses have been rather limited when compared to other global competitors, thanks in large part to the measures taken to mitigate the impact of the crisis. This reflects in particular strong recourse to increased internal flexibility (flexible working time arrangements including shorter hours or temporary partial unemployment, temporary closures, etc.) coupled with nominal wage concessions in return for employment stability in some sectors, all of which appears to have prevented, or at least delayed, significant mass dismissals in certain Member States. In particular, the more moderate increase in the unemployment rate in the EU compared to, for example, the US reflects the greater tendency in several Member States to adjust to changes in demand by lowering hours worked rather than the number of workers, especially in Germany.

The EU already started to emerge from recession a year ago. After five consecutive quarters of contraction in economic output, which started in mid-2008 and were at their strongest at the turn of 2008 and 2009, economic growth began to resume in the second half of 2009. However, growth has remained modest, averaging around 0.2% quarter-on-quarter over the second half of 2009 and early 2010, suggesting that the EU is crawling rather than leaping out of recession. However, growth picked up sharply in the second quarter, raising hopes of a stronger recovery for 2010 as a whole.

The impact of the crisis on the EU labour market was relatively limited in 2008, in line with the usual lagged response, but became more manifest in 2009, with particularly marked employment losses over the first half of the year. However, employment contraction clearly moderated from mid-2009 onwards and finally gave indications of coming to an end in the second quarter of 2010, as more consistent signs of labour markets stabilising

During 2008/2009 the EU economy suffered a long and deep recession, which has impacted strongly on labour markets,...

...although action taken at EU and national level helped mitigate the employment effects.

The EU economy has now started to recover...

...and its labour markets have recently started to show signs of stabilisation...

...but recovery still remains too fragile to ensure a positive trend reversal in EU labour markets...

... and prospects of employment recovery are uncertain in several Member States.

The impact of the crisis has been particularly strong on certain population segments, and the effects may persist, requiring particular support for these groups.

As a result of the crisis, the Lisbon and Stockholm employment targets have become more distant, but long term progress since 2000 is still evident.

in several Member States were observed. For example, the rise in unemployment in the EU has weakened since last autumn, with recent signs indicating that it may be coming to an end - the EU unemployment rate, at 9.6%, has remained unchanged since February, while in recent months the rate has been stable or even declined in several Member States, and in some it is already down compared to a year ago. Furthermore, demand for new workers shows tentative signs of picking up at last, while firms have become more optimistic about employment prospects and consumers' unemployment expectations have been easing.

Although it has now been over a year since the EU economy started to recover from the deep recession, it may take some time yet before the fragile pick-up in economic activity triggers a strong upswing in the labour market. According to the spring 2010 European Commission forecasts the EU economy will continue to face headwinds and the labour-market situation will remain difficult. Furthermore, job creation for the EU as a whole is likely to be subdued in the recovery, as adjustment to a rise in economic activity is likely to come initially from the reversal of the widespread reductions in working hours, as already witnessed in several Member States. Employment growth was forecast at -0.9% for 2010 and to improve to only 0.3% in 2011, while the unemployment rate was expected to average 9.8% in 2010 and to remain at 9.7% in 2011, only marginally down on 2010. However, recently the picture has slightly improved – the interim Commission forecast released in September reports that stronger than expected economic recovery in the EU could lead to the labour market performing somewhat better this year than expected at the time of the spring forecast.

Despite the measures taken to mitigate the impact of the crisis, EU labour markets have clearly taken a considerable blow, although the picture varies across Member States. For many, in particular the Baltic States, Ireland and Spain, it has led to a substantial increase in unemployment, and potentially in long-term unemployment. Despite some positive signals in most countries' labour markets, a lot of uncertainties remain.

Males, the young, migrants, the low-skilled and those with a short-term contract have been most affected by the economic downturn and the rise in unemployment. Apart from men, all of these are traditionally amongst the most disadvantaged groups in the labour market, and the current downturn has made their relative situation even worse, increasing the risk of long-term unemployment and detachment from the labour market. This further stresses the need to address segmentation in the EU labour market - for example, the impact on young people, in particular young men, highlights an increasing need to tackle youth unemployment.

In 2009, the overall EU employment rate averaged 64.6%, down from 65.9% a year earlier and hence increasing the shortfall in relation to the Lisbon target of 70% by 2010 to 5.4 percentage points. At the same time, the employment rate for women declined to 58.6%, some 1.4 percentage points short of the target of 60%, but in contrast that for older people increased slightly to 46%, although still 4 percentage points short of the target of 50%.

Nevertheless, even in these turbulent times, it is still worthwhile to recall the longer-term picture and highlight the progress that has been made in European labour markets since 2000. Even taking into account the impact of the crisis, employment in 2009 was still up almost 12.5 million, or 6%, on the level in 2000, while rises of 2.4, 4.9 and 9.1 percentage points respectively have been observed for the overall, female and older worker rates compared with 2000; a not insignificant achievement.

ON THE PATH TO RECOVERY: A REVIEW OF LABOUR MARKET MEASURES

With the onset of the economic downturn, policy makers across the EU implemented a variety of labour market measures to mitigate the adverse spill-over effects on labour markets. This included putting in place a European Economic Recovery Plan (EERP) - a EUR 200 billion comprehensive, coherent and coordinated recovery package - to slow the pace of the downturn and create the conditions for an upturn. At EU-level, structural reform measures which are a central part of the EERP included, inter alia, measures aimed at supporting the functioning of the labour market and social policies aimed at supporting household purchasing power. There has been a broad consensus that such discretionary measures should be implemented in a temporary, timely, targeted, fair and co-ordinated way, in line with flexicurity principles.

Several measures have been introduced to support the retention or hiring of workers, including modifications to (or introduction of) temporary short time working arrangements, wage subsidies, non-wage cost reductions, expanding public sector employment and promotion of self-employment. These measures not only limited the overall decline in employment but also contributed to a fairer distribution of the adjustment burden.

Although it is too early to determine whether the employment saved will endure after the crisis, a tentative model-based assessment indicates positive outcomes overall. More specifically, model simulations show that temporary public financial support in the form of in-work subsidies increases employment and that such support can be particularly effective in terms of employment gains if targeted specifically on the young.

All in all, due to their specific nature, some measures such as short-time work arrangements (STWA) are more effective in the initial phase of the downturn while, for example, the use of temporary subsidies, especially those targeted at new hires, is more effective in the recovery phase as it helps to speed up job creation when production rebounds.

Nevertheless, maintaining the arrangements for too long poses the risk that necessary restructuring gets delayed, that enterprises get overstaffed, that workers lose the incentive to upgrade their skills, that deadweight losses accumulate, and that funds get diverted from other useful purposes such as training.

In several Member States, aggregate demand and social cohesion have been supported by temporary reinforcement of direct income transfers, including a relaxation of the eligibility rules and increased generosity of the unemployment benefit systems. However, as such increases in income transfers may discourage labour supply, they need to be gradually reduced as the economy recovers and complemented by measures that stimulate job search.

The economic downturn has negatively affected the formation of human capital, thereby reducing the potential to reallocate labour towards a smart, sustainable and inclusive economy. This highlighted the need for efforts to intensify the training of the employed and unemployed and to help employees to acquire new skills. Measures to improve job matching were also implemented as the Public Employment Services in several Member States intensified job search assistance targeted at particular groups

A number of measures have been adopted aimed at mitigating the adverse labour market effects of the economic crisis.

Measures directed at supporting labour demand saved jobs and contributed to a fairer distribution of the adjustment burden....

...as preliminary model simulations also indicate.

Appropriate timing of different measures in different phases of the downturn and recovery appears important...

...and so does their timely withdrawal.

Also timing of measures supporting household income needs to be considered carefully...

...while measures upgrading skills and improving labour market matching maintain their effectiveness at any stage of the recovery.

Gradual phasing out of the crisis-related measures...

...should reflect the situation of the Member States and be complemented by the phasing in of structural measures.

Partial reforms of employment protection have resulted in labour market segmentation...

...with large use of temporary contracts for hiring, combined with low transitions to permanent jobs...

...suggesting that such jobs act as a buffer against shocks rather than as 'screening device'.

such as youth, immigrants, people with short-term contracts or people not receiving benefits. In general, these types of measures maintain their effectiveness irrespective of the specific stage of the recovery.

As the prospects for economic recovery strengthen most Member States have signalled that they will withdraw their crisis-related labour market measures by the end of 2010 or early 2011. In any case it should be borne in mind that these measures are not always automatically reversed when economic conditions change and that they may become irreversible, undermining employment and growth potential.

The gradual phasing out of the crisis-related measures should take into due consideration the concrete situation and constraints of the Member States and be complemented by the phasing in of structural measures aimed at reducing structural unemployment, increasing labour market participation, developing a skilled workforce, and promoting social inclusion by supporting specific population groups including the young, older workers, women, immigrants, the disabled, etc. Moreover, as the fiscal constraints have intensified, it has become even more important to improve the cost-effectiveness of labour market measures by strengthening targeting and timing aspects. Given the socio-economic complexity of the issue, it should be clear that EU-wide mutual learning, the exchange of good practice and a constructive dialogue with social partners should form the main driving forces to phase out the crisis-related measures and to phase in structural measures.

YOUTH AND SEGMENTATION IN EU LABOUR MARKETS

During past decades reforms of employment protection legislation (EPL) introduced by European countries have often been "partial" or "two-tier", i.e. they have substantially deregulated the use of temporary contracts, while maintaining stringent firing rules for permanent ones, rather than reforming EPL 'across-the-board'. Some labour economists argue that such reforms have distinct effects as opposed to 'complete' ones. They have led, firstly, to a large expansion of temporary employment and, secondly, to the emergence of dual labour markets, i.e. one for permanent employees (or 'insiders') with stable employment and good career and earnings prospects, and another for temporary employees (or 'outsiders') who tend to be 'trapped' into temporary jobs with precarious attachment to the labour market (Spain being the most prominent example of this).

In several EU countries a large share of hiring takes place via temporary contracts, mainly involving young workers, indicating that two-tier EPL reforms may initially result in rising employment levels. Temporary jobs account for 40% of total dependent employment among young workers in the EU against 13% for the overall working-age population, and about half or more of short-tenured workers hold a temporary job in several Member States including Spain, Poland, France or Italy. On the other hand, both descriptive evidence and econometric analysis in the report highlight that segmented labour markets are characterised by reduced transition rates from fixed-term to permanent employment, suggesting that firms attempt to circumvent larger firing costs on permanent contracts.

Temporary jobs can fulfil different economic functions. On the one hand they can act as a "screening" device allowing firms to clear up uncertainty over workers' ability and the adequacy of a job-worker match at the time of recruitment. In this vein, temporary jobs can very well serve as a 'gate-

way' to the labour market and a stepping stone to more stable and better paid jobs. On the other hand, temporary contracts can simply be a cheaper production factor relative to permanent employment, acting as a buffer to adjust employment levels to labour demand shocks. Low conversion rates of temporary contracts into permanent jobs suggest that in segmented labour markets the latter function plays a much larger role.

Overall, two-tier reforms increase both hiring and separation rates. Although temporary workers have been disproportionately affected by job cuts during the 2008-2009 recession, net employment gains since 2000 remain positive overall in the EU and in the largest Member States, reflecting the overall positive effect that such reforms had on employment creation through the accrued flexibility in labour markets. Nevertheless, two-tier reforms have also induced changes in the composition of the workforce, leading to a partial substitution of temporary for permanent workers. This is in line with the prediction of some authors (e.g. Boeri and Garibaldi) who argue that two-tier EPL reforms lead first to a 'honeymoon effect' on employment via the expansion of temporary work whereas such employment gains are dissipated in the longer term. According to other authors the effect on separations can in theory more than offset that on hiring if the regulatory asymmetry between regulations of permanent and temporary contracts is particularly large, leading to adverse consequences for total employment levels.

Temporary workers in general and youth in particular have been particularly hard hit during the recent recession as they bore the bulk of the reduction in employment levels. This largely represents the downside of the large expansion of temporary work in those countries following "two-tier" EPL reforms. Hence, segmentation has increased the business cycle volatility of employment. According to the OECD, the business cycle sensitivity of total hours worked for temporary workers is about 2½ times greater than for permanent ones. Evidence provided in the chapter on this issue highlights that in a segmented labour market such as Spain, the adjustment of employment levels to the business cycle is overwhelmingly borne by temporary workers, whereas this is much less the case in Germany or the UK. It is also found that the cyclical variation of employment is higher in Member States with a greater share of temporary employment.

Temporary workers tend to have reduced access to on-the-job training as the limited duration of the employment relationship discourages firms and workers from investing in job-specific human capital. Conversely, results from econometric analysis highlight that temporary workers with a medium-to-low level of initial education are more likely to participate in further 'formal' education, suggesting the existence of a catching-up effect, i.e. temporary workers attempting to overcome their disadvantaged economic position. A low conversion rate into permanent jobs also tends to discourage on-the-job efforts by temporary workers. As highlighted by evidence for Spain, reduced training participation and lower job efforts may slow down productivity growth in countries with a large share of temporary work. Segmentation also affects wage formation. Firstly, it may lead to higher wage growth among permanent workers, as their bargaining power is strengthened by the presence of temporary workers who have a higher probability of dismissal. Also, temporary contracts often involve a substantial wage penalty. Estimates given in the chapter show that in the EU temporary workers earn on average 14% less than workers on open-ended contracts after controlling for a number of personal characteristics.

The net effect on employment creation remains positive, albeit changing its composition.

...whereas its cyclical volatility is increased, as shown by the recent recession.

Temporary workers do less training and earn lower wages than permanent ones.

A precarious start to working life increases insecurity and delays emancipation.

Although temporary work may facilitate the transition process from education to the world of work, particularly in those countries where the apprenticeship system is underdeveloped, labour market segmentation increases the risk that many young people will become trapped (even into their thirties), spending years alternating between temporary jobs and unemployment interludes with limited career prospects. A precarious start to adult life is likely to exacerbate perceived insecurity, thereby impacting on individuals' behaviour. Evidence from a number of countries suggests that young people with temporary jobs (rather than permanent ones) tend to have a higher incidence rate of co-residence with their parents. All else being equal, this tends to delay emancipation, household formation, and procreation, thus reinforcing the trend of population ageing.

Higher education levels facilitate 'good' school-to-work transitions.

The young face a particularly vulnerable situation at the moment of moving from school into work; particularly the least qualified who have the greatest difficulties in getting a foothold in the labour market. Individuals with only primary education are 62% and 50% less likely to move from joblessness to employment and from temporary to permanent employment, respectively, than those with tertiary education. The fraction of NEET (not in education, employment or training) provides a good measure of the share of youth that are left behind and varies significantly within the EU from as low as about 4% in Denmark and the Netherlands to as high as 16-20% in Italy, Cyprus and Bulgaria. The majority of them are inactive rather than unemployed in most Member States.

Employment levels of young workers are more responsive to the business cycle.

Recent work from the OECD confirms the finding that the sensitivity to the economic cycle of employment rates for the young is higher than for prime-age adults. Furthermore, the sensitivity of youth unemployment to the cycle tends to decline progressively with age, being greater for teenagers (15 to 19 years) than for young adults (20 to 24 years) in most countries. Although a larger responsiveness of youth employment to cyclical conditions is a natural feature of labour markets (firms tend first to fire less experienced/younger workers, while young people tend also to be more adaptable and quickly find a new job), there is also ample evidence suggesting that a spell in unemployment early in adult life (i.e. teenage or early twenties) has lasting negative effects both in terms of future employment and wage prospects, although the literature seems divided as regards the extent of these effects.

An exit strategy from segmentation is needed.

Overall two-tier reforms of EPL and the associated emergence of labour market segmentation lead to a number of 'perverse' effects, affecting in particular young workers. This can be corrected through the implementation of comprehensive flexicurity policy packages. A possible "exit" strategy from the regulatory asymmetry between permanent and temporary contracts could be the so-called "single contract", advocated by a number of prominent labour economists, i.e. open-ended but providing for a gradual build-up of employment protection rights.

CONCLUSIONS

The crisis has contributed to the failure to reach the 2010 employment targets and thus increased the short-term challenges for labour market policy making. Well designed employment policies were instrumental in mitigating both the economic and human impacts of the crisis, as this report shows.

Nonetheless, many of the recently implemented recovery measures can only be applied temporarily and their achievement could soon be lost if efforts do not continue to redress the persisting structural obstacles in many Member States' labour markets, which were the main reason behind the failure to achieve the Lisbon strategy targets in the first place, and which also constitute the main threat for future. Labour market segmentation has a prominent place among these structural obstacles, if only because it weighs most heavily on young people and their employment prospects, hence directly endangering the future competitiveness of the EU economy.

The new Europe 2020 strategy puts forward three mutually reinforcing priorities of smart, sustainable and inclusive growth. If the strategy is to succeed, employment policies will have a pivotal role to play in achieving all three of these priorities. In this respect, the new EU headline employment rate target of 75% for the population aged 20-64 is only the most visible demonstration of the EU's ambitions in the field of employment. Behind this lie a whole array of tasks, including support for better combinations of flexibility and security in the labour market, increasing participation levels including through more inclusion of vulnerable groups, fighting structural unemployment, developing a skilled workforce responding to labour market needs and promoting job quality.

While employment policies helped mitigate the effects of the crisis...

...they must turn to persisting structural challenges such as labour market segmentation...

...to contribute effectively to the success of the Europe 2020 strategy.

EU labour markets in time of economic crisis – relatively resilient, but persisting weakness and slow jobs recovery expected

1. INTRODUCTION

As stated in the recent Commission Communication on Europe 2020⁽¹⁾, Europe faces a moment of transformation. The recent economic crisis, which has no precedent in our generation, has wiped out much of the steady gain in economic growth and the reduction in levels of unemployment witnessed over the last decade – EU GDP fell by 4.2% in 2009, industrial production dropped back to the levels of the late 1990s and 23 million people⁽²⁾ – or close to 10% of the economically active population – are now unemployed.

Signs of an economic downturn appeared already in the EU by the second quarter of 2008 but intensified in the third quarter with the worst financial turmoil since 1929, followed by an economic recession, and subsequent effects on the labour market. By February 2010 the EU unemployment rate had risen to the highest level in a decade (9.6%), where it has subsequently remained. Males, the young, migrants, the low-skilled and those with a short-term contract have been most affected by the economic downturn and

the increase of unemployment. As unemployment rose, the spotlight fell more and more on limiting the effect of the crisis on jobs and addressing the social impact.

The EU and its Member States reacted promptly to this worldwide financial and economic crisis: in the first place, by taking action to prevent a meltdown in the financial market in autumn 2008, and then, by agreeing, in December 2008, to put in place a European Economic Recovery Plan (EERP) – a €200 billion comprehensive, coherent and coordinated recovery package – to arrest the pace of the downturn and create the conditions for an upturn. At EU-level, structural reform measures which are a central part of the EERP include, *inter alia*, measures aimed at supporting the functioning of the labour market, and social policies aimed at supporting household purchasing power⁽³⁾. Even though the ‘great recession’ which stalked the global economy has now bottomed out and growth has returned, and despite some positive signals in some countries’ labour markets, a lot of uncertainties remain.

Despite the measures taken to mitigate the impact of the crisis, EU labour markets have clearly suffered a major correction, although the picture varies across Member

States, partly reflecting the different exposures to imbalances accumulated in the preceding boom period (such as that due to years of investment deviated to the construction sector because of the housing bubble in some countries). For many it has led to a substantial increase in unemployment, and potentially in long-term unemployment, although in a number of job losses have been rather restrained to date. The latter reflects, in particular, strong recourse to increased internal flexibility (flexible working time arrangements including shorter hours or temporary partial unemployment, temporary closures, etc.) coupled with nominal wage concessions in return for employment stability in some sectors, all of which appears to have prevented, or at least delayed, more significant mass dismissals in certain Member States.

Although it has now been more than a year since the EU economy started to recover from deep recession, it may take some time yet before the fragile pick-up in economic activity triggers a clear upswing in the labour market. Nevertheless, according to the latest data, the labour market is now showing consistent signs of stabilisation, and even the first signs of recovery in some Member States. Unemployment in the EU is broadly stable, while in some Member States it has now started to fall. Demand for new workers, as indicated by the

(1) Europe 2020 – A strategy for smart, sustainable and inclusive growth (COM(2010) 2020).

(2) Seasonally adjusted figure (the non-seasonally adjusted figure is 22.4 million (July 2010)).

(3) See Chapter 2 for more details on these crisis-related labour market measures.

EU job vacancy rate, shows signs of finally picking up, and while companies still announce more job losses than gains, the losses are generally substantially fewer than in 2009. Furthermore, firms are becoming more optimistic about employment prospects and consumers' unemployment expectations are easing.

According to the latest European Commission forecasts⁽⁴⁾, although the EU economy is now recovering at a faster pace than previously envisaged, it will continue to face headwinds from several directions and, despite apparent signs of stabilisation, the labour-market situation will remain weak. In the previous spring forecast, employment growth was forecast at -0.9% for 2010 as a whole and to improve to only 0.3% in 2011, while the unemployment rate was set to average 9.8% in 2010 and to remain at 9.7% in 2011. However, the recent strong upward revision to economic growth for 2010 suggests that the labour market, while still remaining weak, may perform somewhat better this year than expected at the time of the spring forecast.

Even in these turbulent times, it is worthwhile to present the longer-term picture to highlight the progress that had been made in European labour markets between 2000 and the start of the global crisis in 2008, and to compare the annual results for 2009 with those of the preceding years (see section 5 below). In view of the rapidly changing situation, though, this year's report focuses on the more up-to-date picture of the short-term developments in labour markets since the downturn began, namely from the second quarter of 2008 through to the second quarter of 2010, the last one for which data were available at the time of publication.

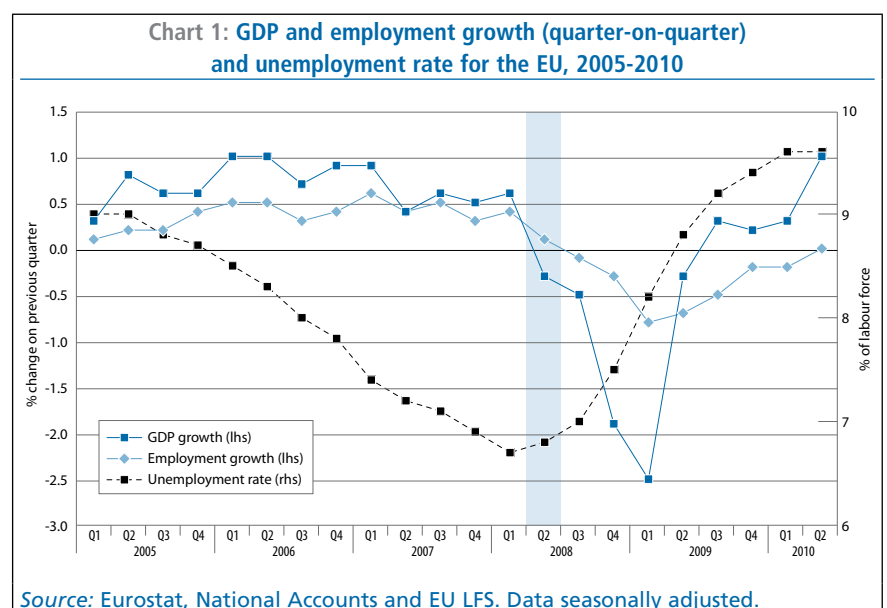
2. ECONOMIC AND LABOUR MARKET DEVELOPMENTS DURING THE CRISIS

Economic growth has now resumed in the EU, with positive GDP growth being recorded from the third quarter of 2009 onwards, although the recovery remains fragile.

The recession from which the EU has now emerged was the deepest and most widespread in the post-war era, and in some cases the contraction in activity was the largest seen since even the 1930s. After several years of favourable growth, and a particularly good performance in terms of employment creation, economic and labour market conditions deteriorated sharply in the second part of 2008. This occurred as a result of the impact of the financial crisis which deepened in autumn 2008, and which resulted from a fall in asset prices after a period of asset price inflation, leading to a liquidity shortage among financial institutions and concerns over their solvency.

These concerns were subsequently transmitted to non-financial sectors (the so-called 'real economy'), and came on top of a correction in the housing markets in many countries. The ensuing weakening in global and domestic demand, and a marked drop in investor confidence together with tighter financing conditions and a reduction in the availability of credit, had a dramatic effect on the economy and subsequently the labour market⁽⁵⁾.

The downturn in the EU economy actually started in the second quarter of 2008, as quarter-on-quarter GDP growth turned negative following a substantial drop (Chart 1). At the same time employment growth in the EU effectively petered out, this quarter thus marking the point at which the (seasonally adjusted) level of employment in the EU peaked, while the unemployment rate began to head upwards after reaching a low in the previous quarter. This turning point is therefore used here as the reference point for comparing subsequent developments in the labour market. The already negative trend was subsequently bolstered



(4) Interim economic forecast of September 2010 (see http://ec.europa.eu/economy_finance/publications/european_economy/forecasts_en.htm).

(5) For a more detailed account of the causes of the crisis see "Economic Crisis in Europe: Causes, Consequences and Responses", European Economy 7/2009, DG Economic and Financial Affairs, European Commission.

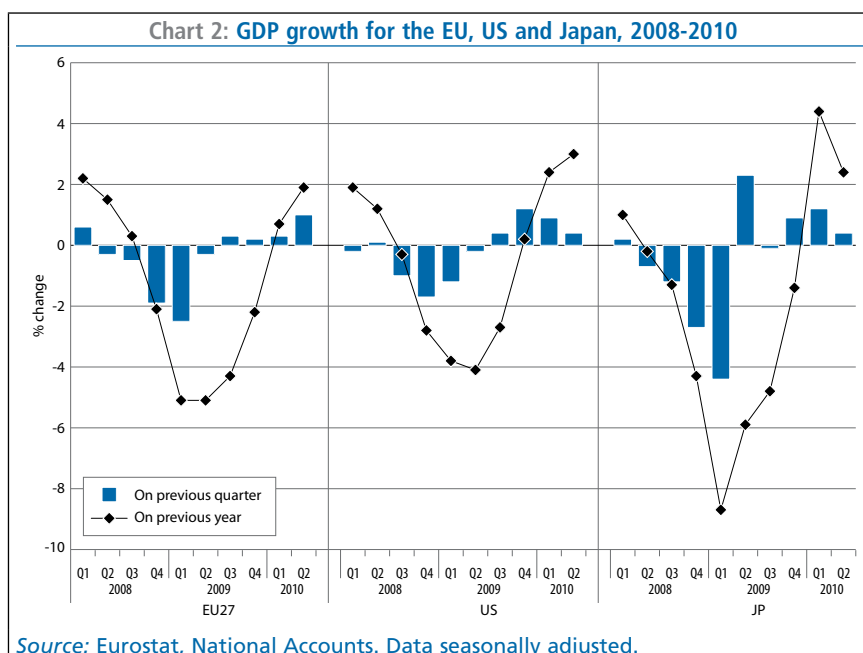
in the latter part of 2008, following the marked deepening in the financial crisis in September and October, leading to more substantial impacts on the labour market in subsequent quarters. The deterioration in employment in the EU only came to an end in the second quarter of 2010, as late as a year after economic recovery had started, when the level of employment remained unchanged on the previous quarter for the first time in nearly two years and the unemployment rate stabilised.

2.1. Economic activity

Although the EU came out of recession in mid-2009, with global recovery supporting a revival in demand for EU goods and services, the economy has clearly been marked by the recent global financial and economic crisis. As a result of the financial crisis in autumn 2008, risk evasion became pervasive with much tighter credit conditions, and lending volumes to companies and individuals dropped. In addition, exposure to the substantial ongoing housing-market corrections or other country-specific factors in several Member States brought a halt to growth in domestic demand at the same time as external demand weakened. Faced with falling demand and therefore poor prospects for profits, firms sharply reduced investment. At the same time, confronted by risks to employment and the need to rebuild savings, households curtailed consumption, especially of durable items, as evidenced by the sharp declines in car sales in many EU Member States in 2009.

2.1.1. Developments in GDP

Following solid GDP growth in previous years - 3.2% in 2006 and 3.0% in 2007 - economic activity in the EU began to decline in the second quarter of 2008 and, by the third quarter, the EU had entered a technical recession (two consecutive quarters of negative quarter-on-quarter



growth). The situation deteriorated further in the following two quarters, with sharp contractions of 1.9% and 2.5% recorded, reflecting in particular marked falls in output in manufacturing and construction (Box 1). However, by the second quarter of 2009 there were signs that the recession was easing, as GDP declined by a more limited 0.3% and, by the third quarter, modest growth resumed. Economic output increased by 0.3% in the third quarter, but only rose by a mere 0.2% in the last quarter of 2009, as the impact of temporary factors started to fade. Owing to the severity of the crisis, economic output at the end of 2009 was still down by 2.2% compared to a year earlier, but at the height of the recession had contracted by as much as 5.1% year-on-year. However, stronger than expected recovery over the first half of 2010, with GDP growth of 1.0% in the second quarter, resulted in a return to positive year-on-year growth of 1.9% by the second quarter. Nevertheless, EU economic output was still down 3.3% compared to the level in the second quarter of 2008 (Chart 2)⁽⁶⁾.

The decline in EU GDP during the crisis compares with a somewhat more

limited decrease in economic output in the USA, which entered recession in the fourth quarter of 2008 and saw the drop in output peak at just over 4% year-on-year. However, the EU contraction was much less than that suffered in Japan which, due to a sharp drop in exports combined with weak domestic demand, saw economic output decline by as much as 8.7% year-on-year at its peak.

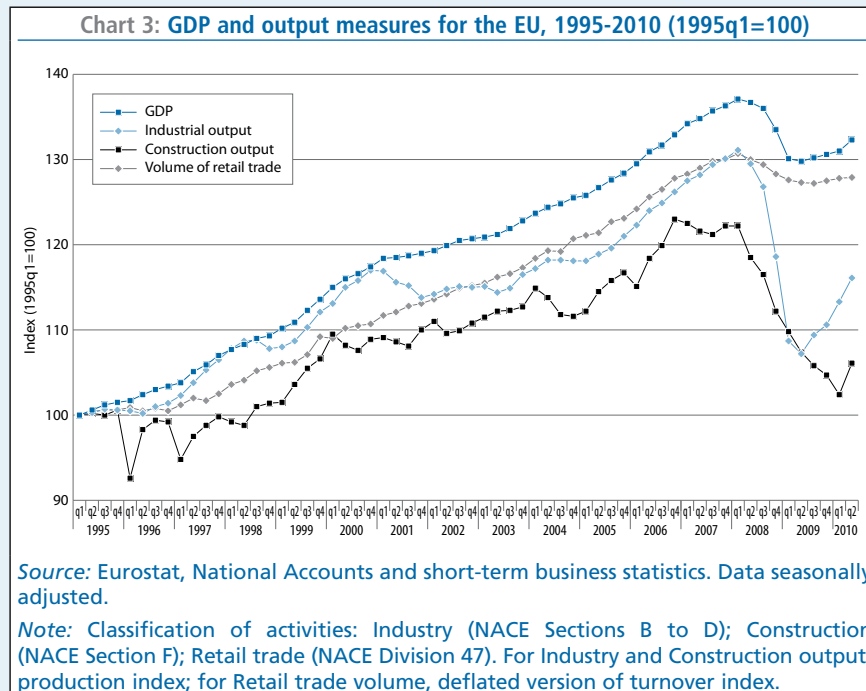
More recently, in contrast to the weak recovery in the EU over the second half of 2009, economic output in the US strengthened considerably, picking up by 0.4% (quarter-on-quarter) during the third quarter and by a solid 1.2% in the fourth. As a result, while by the fourth quarter output in the EU was still down by 2.2% year-on-year, in the US economic output had recovered to the levels of a year earlier. Moving into 2010, quarter-on-quarter growth in the US remained at a robust 0.9% in the first quarter but slowed to 0.4% in the second, while year-on-year growth, at 3.0% by the second quarter, remained stronger than in the EU. At the same time, the recent recovery in Japan also appears stronger than that in the EU, with output up 2.4% year-on-year in the second quarter.

(6) Quarter-on-quarter and year-on-year GDP growth is based on seasonally adjusted data.

Box 1: Output developments in different sectors of the business economy

Activity-based measures of the evolution of output show stark contrasts between developments in different sectors of the EU's business economy since the crisis began (Chart 3). There has been a considerable downturn in industrial and construction output (as measured by indices of production), while the volume of retail trade has seen far less of a contraction.

The length of the downturn in EU-27 industrial production was some five quarters (declining in 2008q2 through to 2009q2), with an overall reduction of around 18% in industrial activity at the trough compared to the peak in 2008 q1. As a result, by mid-2009 industrial production had dropped back to the levels of the late 1990s. However, production posted a strong recovery over the following year and by mid-2010 industrial output was down by a relatively more limited 11.4% on the peak in 2008 q1.



While the downturn in output as a result of the recession is most easily seen for EU industrial production, the decline in construction output was also considerable (some 16% at its trough). Furthermore, the downturn in construction activity lasted much longer (declining for eight quarters, from 2008q2 through to 2010q1) and only recently showed signs of abating as activity finally picked up in the second quarter of 2010. In contrast, the reduction in the output of the retail trade sector has been far less severe (under 3% at its trough), although, here too, there have been no clear signs yet of any strong upturn in activity.

During the crisis the main industrial groupings that suffered the largest contractions in output were the manufacture of capital goods and intermediate goods (both with output down around a quarter). For the former, the downturn likely resulted from downstream manufacturers deciding to defer investment in machinery and intermediate goods until there were signs of an upturn. There was a stark contrast in the depth of the downturn between durable and non-durable consumer goods, output for the former falling by over a fifth while for the latter it fell by only around 5%. These differences may be attributed to consumers deferring big-ticket purchases, while continuing to buy essential items, such as food. This in turn partly explains why manufacturing was more affected than retail trade, and together with the housing bubble, why the decline in construction was so strong.

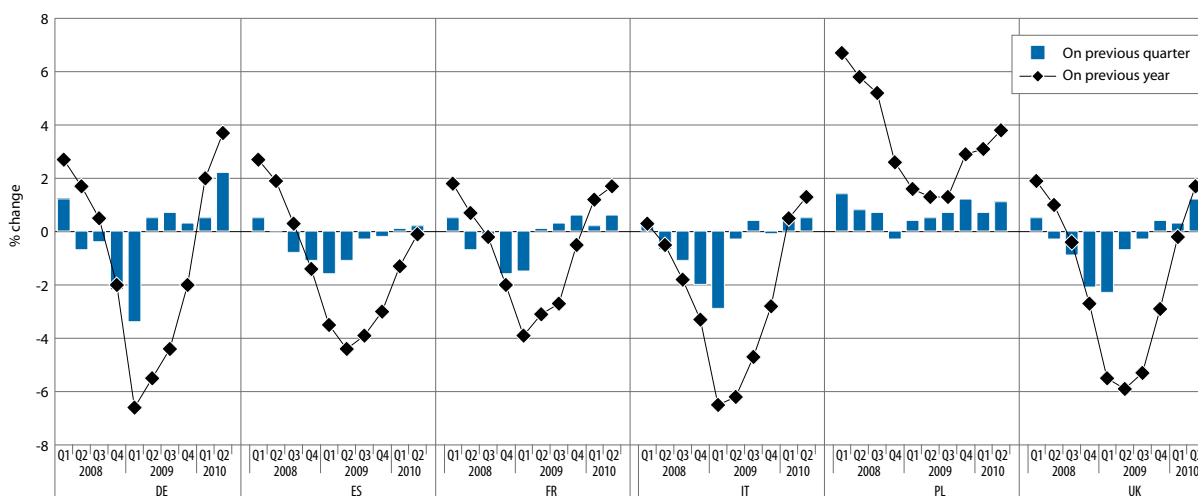
The marked decline in economic output at EU level during the crisis reflected strong contractions in Germany, Italy and the UK (all with peak year-on-year declines of around 6-7%) and slightly more moderate falls in France and Spain (with peak year-on-year falls of 3.9% and 4.4% respectively). In contrast, although slowing, year-on-year GDP growth remained positive in Poland (Chart 4). Most of the larger

Member States had already experienced negative quarterly GDP growth by the third quarter of 2008, but the main declines were recorded in the fourth quarter and in the first quarter of 2009. However, growth subsequently resumed in all except Spain over the course of 2009, although the rates of economic expansion were rather modest. By the first quarter of 2010, all the larger Member States had returned

to positive quarter-on-quarter growth, and in the second quarter Germany and the UK recorded particularly strong rates of expansion.

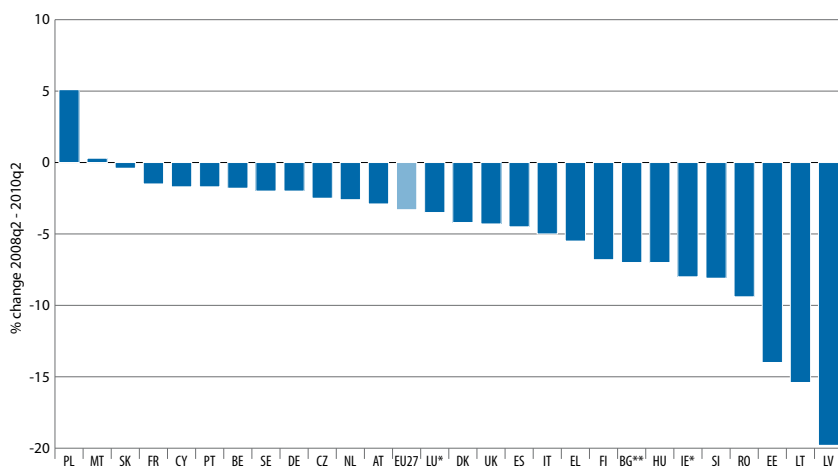
Among the larger Member States, Germany suffered the strongest contraction in economic output during the crisis, with the recession deepening sharply from the last quarter of 2008, although output recovered somewhat

Chart 4: GDP growth for the larger EU Member States, 2008-2010



Source: Eurostat, National Accounts. Data seasonally adjusted.

Chart 5: Change in GDP for EU Member States from 2008q2 to 2010q2



Source: Eurostat, National Accounts. Data seasonally adjusted (except for BG).

Note: * Data for IE and LU 2008q2 - 2010q1, ** for BG 2008q1 - 2010q1.

exited recession (Table 1). Most Member States had technically entered a recession by the last quarter of 2008, and all except Poland and Slovakia by the first quarter of 2009. Ireland and the Baltic States of Estonia and Latvia were the first to enter a continuous period of recession, in the second quarter of 2008, and subsequently remained in recession through 2008 and 2009 (except for Estonia exiting recession in the last quarter of 2009). This early entry and long duration may at least in part explain why they are among those to have suffered the greatest contraction in GDP during the crisis. Most Member States entered recession in the third (including France, Germany, Italy and the UK) or fourth quarter (including Spain) of 2008, while a few only entered at the start of 2009. Poland and Slovakia managed to avoid entering technical recession (although Slovakia experienced a particularly sharp contraction in GDP in the first quarter of 2009).

However, most Member States returned to positive growth during 2009. The majority of these exited recession in the third or fourth quarters, although a few, including France and Germany, exited as early as the second quarter. By the end of 2009 only Cyprus, Greece, Ireland, Latvia and Spain remained in recession, and by the second quarter of 2010 only Greece was still experiencing economic contraction.

from the second quarter of 2009 onward as GDP growth turned positive again. The recession particularly hit manufacturing, and also the trade, transport and communication sector, reflecting Germany's strong economic dependence on foreign exports, which plummeted due to the global downturn (although the subsequent recovery in world trade has been particularly beneficial to the German economy). Output also fell strongly in construction. Similarly, a strong decline in output in the UK reflected a sharp housing correction and its economic reliance on the hard hit financial sector.

However, the Member States whose economies have been most affected

by the crisis have clearly been the three Baltic States (Estonia, Latvia and Lithuania) (Chart 5). Even though their economies have recently started to improve, economic output in the second quarter of 2010 was still down by around 15% in Estonia and Lithuania and 20% in Latvia on levels in the second quarter of 2008. Similarly, Bulgaria, Finland, Hungary, Ireland, Romania and Slovenia also registered relatively large falls in GDP compared to levels two years previously, of the order of 7-10%.

Focusing on the duration of the recession, there is quite a spread in the time at which individual Member States entered and (where applicable)

Table 1: Length of recession in the EU Member States,
US and Japan (as indicated by quarter-on-quarter GDP growth rates)

	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2	2009Q3	2009Q4	2010Q1	2010Q2
BE	0.8	0.5	-0.4	-2.2	-1.7	0.1	1.0	0.4	0.0	0.9
BG	:	:	:	:	:	:	:	:	:	:
CZ	0.3	0.7	0.2	-0.7	-3.8	-0.5	0.5	0.5	0.4	0.9
DK	-1.4	0.9	-0.8	-2.3	-1.8	-2.2	1.0	0.2	0.7	1.0
DE	1.4	-0.7	-0.4	-2.2	-3.4	0.5	0.7	0.3	0.5	2.2
EE	-2.2	-1.0	-2.7	-5.7	-5.6	-3.7	-1.4	1.4	1.1	1.9
IE	-2.5	-1.9	-0.3	-4.8	-2.5	-0.3	-0.2	-2.7	2.7	:
EL	0.7	0.6	0.1	-0.7	-1.0	-0.3	-0.5	-0.8	-0.8	-1.8
ES	0.5	0.0	-0.8	-1.1	-1.6	-1.1	-0.3	-0.2	0.1	0.2
FR	0.5	-0.7	-0.2	-1.6	-1.5	0.1	0.3	0.6	0.2	0.6
IT	0.4	-0.7	-1.1	-2.0	-2.9	-0.3	0.4	-0.1	0.4	0.5
CY	0.8	1.2	0.2	-0.1	-1.1	-0.9	-0.5	-0.3	0.4	0.6
LV	-3.0	-2.2	-1.1	-4.2	-11.6	-1.5	-3.2	-1.2	0.9	0.8
LT	0.2	0.5	-1.2	-1.2	-13.7	-1.0	1.0	1.3	-4.0	3.2
LU	0.5	-0.2	-2.2	-2.1	-2.0	-2.4	4.5	1.2	-0.3	:
HU	1.0	-0.3	-0.9	-2.1	-2.9	-1.3	-0.6	0.0	0.6	0.0
MT	1.1	1.0	0.0	-1.4	-1.9	-0.1	1.2	1.0	1.4	0.1
NL	0.8	-0.2	-0.4	-1.2	-2.4	-1.2	0.6	0.6	0.5	0.9
AT	1.3	0.4	-0.6	-1.5	-2.3	-0.8	0.6	0.4	0.0	1.2
PL	1.4	0.8	0.7	-0.3	0.4	0.5	0.7	1.2	0.7	1.1
PT	0.1	-0.1	-0.7	-1.4	-1.8	0.6	0.3	-0.1	1.1	0.3
RO	3.8	1.5	-0.4	-2.2	-4.1	-1.5	0.1	-1.5	-0.3	0.3
SI	1.7	0.7	0.2	-3.3	-6.1	-0.6	0.4	0.1	-0.1	1.1
SK	-1.9	1.5	1.2	0.4	-7.4	0.8	1.2	1.7	0.8	1.2
FI	0.3	0.3	-0.5	-3.1	-5.7	-0.8	1.1	0.3	0.1	1.9
SE	-1.0	-0.2	0.1	-3.9	-2.7	0.3	0.5	0.6	1.5	1.9
UK	0.5	-0.3	-0.9	-2.1	-2.3	-0.7	-0.3	0.4	0.3	1.2
EU27	0.6	-0.3	-0.5	-1.9	-2.5	-0.3	0.3	0.2	0.3	1.0
JP	0.2	-0.7	-1.2	-2.7	-4.4	2.3	-0.1	0.9	1.2	0.4
US	-0.2	0.1	-1.0	-1.7	-1.2	-0.2	0.4	1.2	0.9	0.4

Source: Eurostat, National Accounts. Data seasonally adjusted (not available for BG).

Note: Colour of cells indicates first (in a sequence) of negative q-on-q growth rates (light blue), followed by quarters in which Member State technically in recession (dark blue).

2.2. How has the labour market adjusted during the crisis?

2.2.1. Labour demand

Demand for new workers declined strongly over 2008 and most of 2009 in line with the economic downturn. The EU job vacancy rate (i.e. the number of vacancies relative to the sum of vacancies and occupied posts) started to drop continuously from the

second quarter of 2008, falling from a level of 2.2% in the first quarter of 2009, when it bottomed out. In total the rate fell by 0.9 percentage points (or around 40%) over this period, although underlying this development is significant variation in the size of the decline in demand across individual Member States. Driven by an improvement in Germany, the vacancy rate finally started to rise again in the fourth quarter of last year, when it increased moderately to 1.4%, and then rose again in the

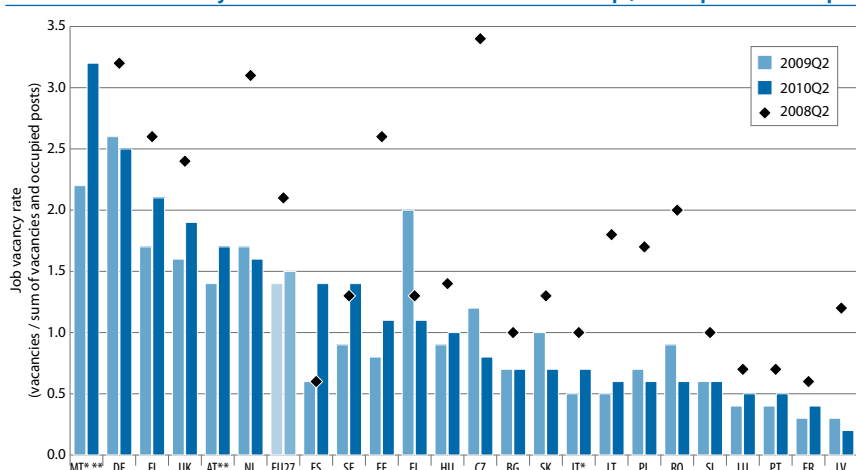
first quarter of 2010 to reach 1.5% where it stabilised. Although this indicates a relative improvement in demand for new workers, the rate remains well down on the levels observed at the start of 2008.

Among the larger Member States, vacancy rates in the second quarter of 2010 remained well down on the levels recorded in spring 2008 (Chart 6). The decline in the vacancy rate relative to the second quarter of 2008 has been most pronounced in Poland (down by 1.1 percentage points, or by two-thirds), reflecting the cooling-off in employment expansion over 2008 and subsequent slight contraction in 2009. Rates were down by a more moderate amount compared to the spring of 2008 in France (by 0.2 percentage points), Germany (down 0.7 percentage points), Italy (down 0.3 percentage points) and the UK (by 0.5 percentage points). In contrast, the rate had risen substantially in Spain to well beyond the already low levels two years earlier, reflecting a sharp improvement over the last year. While the falls for France and Italy still represent relative declines of around a third on the second quarter of 2008, those for Germany and the UK are more limited (at around a fifth).

By the second quarter of 2010, the rate stood at 0.6–0.7% in Italy and Poland, and at only 0.4% in France, the second lowest rate in the EU. However, it remained relatively high in Germany (2.5%, the second highest rate in the EU) and the UK (1.9%), reflecting persisting labour/skill shortages and continued substantial job opportunities despite the crisis and increased unemployment. Official sources in Germany and the UK confirm that, although by early 2010 registered job vacancies were still markedly down on pre-crisis levels, overall vacancy levels remained reasonably high at around 500 thousand in each country.

Other than Sweden, all the other Member States for which vacancy data is available still recorded

Chart 6: Job vacancy rates for EU Member States in 2008 q2, 2009q2 and 2010q2



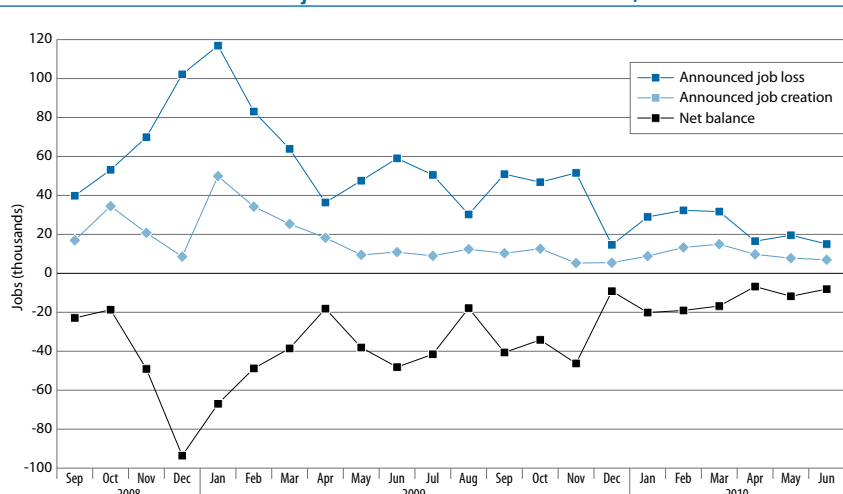
Source: Eurostat, Job Vacancy Statistics. Data non-seasonally adjusted.

Note: * Data for IT and MT 2010q1 instead 2010q2. ** No data for MT and AT 2008q2. Sectors: B-S (Industry, construction and services (except activities of households as employers and extra-territorial organisations and bodies) except for B-N (Business economy) for IT. Firm size: total except for FR, IT and MT (10 or more employees).

there have been almost three times as many announced job losses as job gains in ERM restructuring cases since September 2008. However, since the end of last year there has been a sharp fall in announced job losses, although they still continue to outnumber job gains. In each month since April 2010, total announced job losses have been around a seventh of the peak level reached in January 2009.

Focusing on particular types of employment, temporary agency work has been hit particularly hard by the downturn, as reflected in data from Eurociett (Chart 8). This shows a sharp year-on-year contraction in the number of hours invoiced by private employment agencies between autumn 2008 and spring 2009. By April 2009 the size of this year-on-year contraction ranged from the order of 20-30% in Belgium, Germany and the Netherlands, around 40% in France and Italy, to over 50% in Spain. Nevertheless, post mid-2009 there has been a strong recovery in workplace activity through temporary work agencies, a leading indicator of a recovery in the labour market. By early 2010 the number of hours invoiced by private employment agencies was returning to levels above those observed a year earlier in most countries, and this strong recovery has generally continued into the first half of 2010.

Chart 7: Announced job losses and creation in the EU, 2008-2010



Source: European Monitoring Centre on Change, European Restructuring Monitor.

rates for spring 2010 substantially down relative to those in spring 2008, although many have seen an improvement over the last year. The sharpest falls (of around 1.5 percentage points or more) were registered in the Czech Republic, Estonia, the Netherlands and Romania while in relative terms the declines have also been substantial in Latvia and Lithuania. Apart from Germany and the UK, demand for new workers remained relatively strong in Austria, Finland, Malta, and the Netherlands (all with rates in excess of 1.5%) in the second quarter of 2010, despite the strong declines relative to early 2008. At

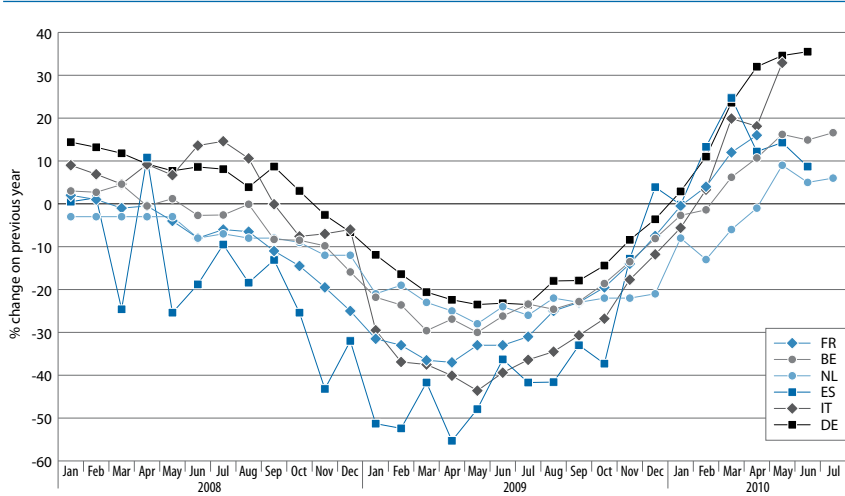
0.5% or under, in addition to France, labour demand remained weakest in Latvia, Luxembourg and Portugal.

The evolution in firms' labour demand during the crisis is also reflected in the European Restructuring Monitor (ERM) data collected by the European Monitoring Centre on Change (Chart 7). This clearly shows that from September 2008 onwards, when the crisis heightened, job losses announced by firms strongly outnumbered announced job gains, and that announced job creation has fallen to very low levels over most of 2009 and the first half of 2010. Indeed,

Despite the clear downward adjustment in the demand for new workers during the crisis, it appears that many firms were reluctant to reduce the number of existing employees even when the demand for their output fell. Manpower Employment Outlook Surveys⁽⁷⁾ consistently indicated that the majority of employers reported they intended to make no changes in their staffing levels, which was a reflection of employers' concern of losing skilled workers who would be hard to replace. The Manpower Employment Outlook Survey for the second quarter of 2010

(7) For more information see the website: www.manpower.com/press/meos.cfm

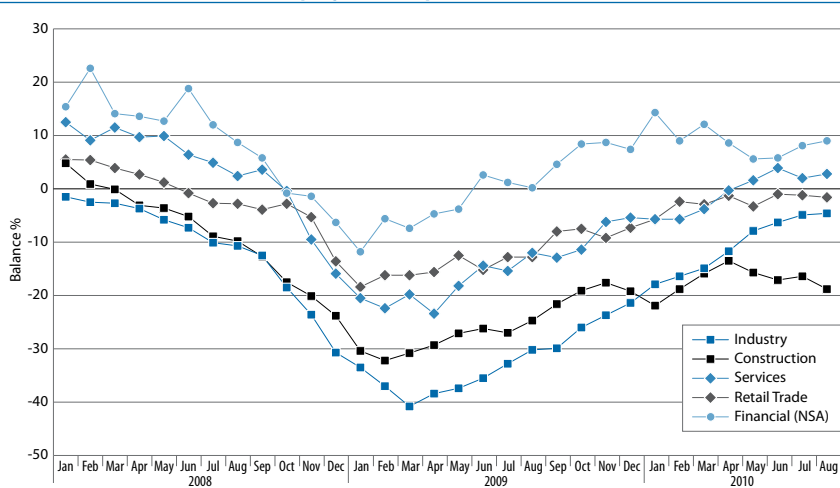
Chart 8: Hours worked invoiced by private employment agencies for selected Member States, 2008-2010



Source: Eurociett.

Note: Hours worked defined as sum of all hours invoiced by all private employment agencies to all user companies. For IT number of remunerated working days, for DE number of agency workers.

Chart 9: Sectoral employment expectations for the EU, 2008-2010



Source: Commission services, Business and consumer surveys. Data seasonally adjusted (except for the financial sector).

reported that, while firms' expectations of firings had decreased, intentions to take on more staff remained broadly flat across EU countries. This stagnation in hiring in part reflects the fact that reduced working hours in Europe have led to widespread underemployment, with the existing workforce likely to absorb increased demand through a rise in working hours before any major increase in staff levels takes place.

The still weak situation on the demand side is confirmed by

European Commission business and consumer surveys, and is expected to continue for some time. Although firms' employment expectations have shown a substantial improvement across all main sectors since the lows recorded in early 2009, they still remain negative on balance other than in the case of services and the financial sector (Chart 9). Employment expectations have shown the greatest relative improvement in manufacturing, and along with those in the retail sector are now approaching a zero net balance, although more

recently progress has been sluggish. Furthermore, although expectations in services have been positive since May, the balance remains subdued, while the jobs outlook in the construction sector still remains decidedly pessimistic.

2.2.2. Employment

Employment growth

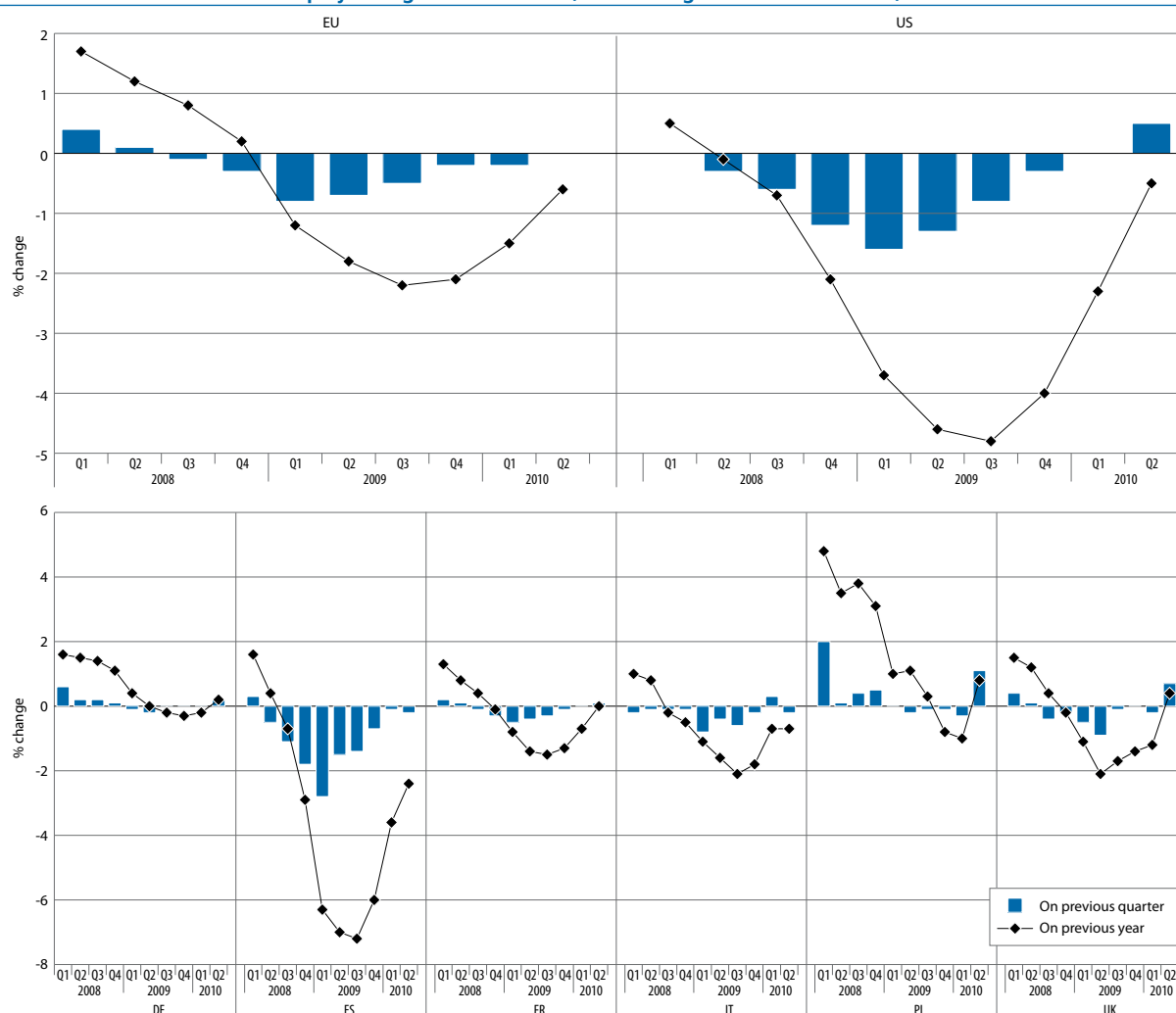
Employment reacted to the recession with the usual lags, owing to the delaying effects of employment protection legislation and labour hoarding motivated by firms' decisions to avoid firing costs and future recruitment costs as far as possible, and by government sponsored short-time working schemes which have contributed substantially to cushioning the effect on employment⁽⁸⁾.

The labour market in the EU already started to weaken considerably in the second quarter of 2008, with employment growth moderating from the high rates of 2006 and 2007. In the latter half of 2008, in response to the intensification of the financial crisis, employment growth deteriorated even more sharply, turning negative from the third quarter of 2008 on. After posting negligible growth in the second quarter, which marks the high point in the previous period of employment expansion, employment in the EU contracted by 0.1% and 0.3% in the remaining two quarters of 2008. However, employment contraction was at its most severe over the first three quarters of 2009, with quarterly employment growth rates of -0.8%, -0.7% and -0.5% respectively, before the contraction moderated (to -0.2%) in the fourth quarter and the first quarter of 2010 (Chart 10)⁽⁹⁾. The unbroken period of contraction only gave indications of coming to an end in the second

(8) See also section 3.1 of Chapter 2.

(9) Quarter-on-quarter employment growth based on seasonally adjusted data, year-on-year employment growth based on non-seasonally adjusted data, employment levels based on non-seasonally adjusted data.

Chart 10: Employment growth for the EU, US and larger EU Member States, 2008-2010



Source: Eurostat, National Accounts and US Bureau of Labour Statistics.

Note: For EU: Data seasonally adjusted for change on previous quarter; data non-seasonally adjusted for change on previous year. For US: Employment refers to total nonfarm employment, all data seasonally adjusted.

quarter of 2010, when employment in the EU remained unchanged on the previous quarter for the first time in nearly two years. As a result, employment in the EU had declined to around 221 million by the second quarter of 2010, down by 5.6 million (or 2.5%) compared with the second quarter of 2008. (This compares with employment expansion of around 17 million between mid-2000 and mid-2008).

Despite the more limited decrease in economic activity in the US than in the EU, employment contraction there has been more pronounced – total nonfarm employment fell by more than 8 million (or around 6%) from the peak in the first quarter of 2008 until the end of 2009 (the last

quarter of negative growth). The pattern of quarterly employment growth rates are broadly similar to the EU, with the strongest contraction in the first quarter of 2009 (when employment in the US fell 1.6% on the previous quarter), but with a return to employment expansion by the second quarter of 2010, and with year-on year employment contraction peaking at 4.8% in the US compared to 2.2% in the EU.

The development at EU level during the crisis was driven by strong labour market downturns in the larger Member States, most notably in Spain, but also in France, Italy and the UK. Although in Germany and Poland employment levels remained relatively resistant to the effects of

the crisis over 2008 (in the former due to extensive recourse to short-time working arrangements), by early 2009 they had also joined the others in posting negative quarterly growth rates, although with much weaker rates of contraction. Nevertheless, by the last quarter of 2009 the rate of employment contraction had moderated considerably compared to previous quarters in all, and in the second quarter of 2010, France, Germany, Poland and the UK recorded an expansion in employment.

At Member State level, the labour market impact of the crisis has been rather uneven (Table 2), reflecting different policy responses to the crisis, varying levels of economic contraction, and the different structures

of the economies. Among the larger Member States, Spain has clearly experienced the greatest decline in employment, with labour reductions particularly marked in the construction and industry sectors. Employment growth in Spain progressively decelerated over the course of 2007 and turned negative already in the second quarter of 2008. The contraction in employment then accelerated over the following quarters, with quarter-on-quarter growth posting -2.8% by the first quarter of 2009, before moderating in subsequent quarters to around -0.7% by the fourth quarter and then more negligible rates of -0.1% and -0.2% in the first two quarters of 2010. Compared with the second quarter of the 2008, employment had contracted by 9.2%, or almost 2 million,

by mid-2010, a much stronger contraction than in the other larger Member States (Chart 11).

Despite the recession being deeper in Italy and the UK, the deterioration in labour markets in those Member States due to the crisis has been less pronounced than in Spain (where the employment decline was significantly higher than the decline in economic activity – see Box 2). By the second quarter of 2010, employment levels were down by a much more moderate 2.3% (0.6 million) in Italy and by 1.7% (0.5 million) in the UK compared to levels in the second quarter of 2008. Also in France, where the economic recession was similar in size to that in Spain, employment deterioration was less pronounced - over the two years to the second quarter,

employment was down by a more limited 1.4% (0.4 million).

By contrast, in Germany the effects of the economic recession on the labour market have been mitigated by widespread reductions in working hours, as companies used internal adjustment measures such as temporary suspension of production and short-time working arrangements rather than reducing the workforce⁽¹⁰⁾. As a result Germany only experienced two quarters of very limited employment contraction in the last two years - quarter-on-quarter employment growth turned negative (-0.1%) only in the first quarter of 2009 and remained so only in the following quarter, which saw a similarly moderate rate of contraction (of -0.2%). By the third quarter the contraction had ended,

Table 2: Employment growth for EU Member States

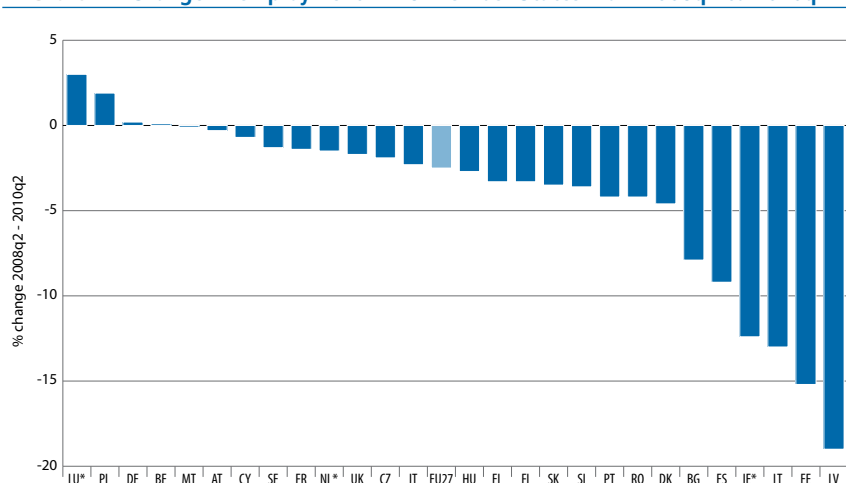
	% change on previous quarter										% change on previous year									
	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2	2009Q3	2009Q4	2010Q1	2010Q2	2008Q1	2008Q2	2008Q3	2008Q4	2009Q1	2009Q2	2009Q3	2009Q4	2010Q1	2010Q2
BE	0.5	0.4	0.4	0.0	-0.4	-0.3	-0.3	0.0	0.3	0.3	1.9	1.8	1.8	1.4	0.4	-0.2	-1.0	-0.8	-0.2	0.3
BG	1.6	0.2	0.4	-0.2	-0.8	-1.4	-1.7	-1.8	-2.0	:	4.2	2.7	2.3	1.5	0.0	-1.6	-3.5	-5.6	-7.3	-6.4
CZ	0.1	0.0	0.5	0.3	-0.7	-1.0	-0.4	0.2	-0.9	0.1	1.4	1.2	1.4	0.9	0.0	-0.9	-1.9	-1.9	-2.1	-1.0
DK	1.3	-0.1	0.5	-0.1	-1.4	-1.5	-1.4	-1.3	0.1	0.4	2.1	1.8	2.2	1.6	-1.1	-2.4	-4.4	-5.5	-4.1	-2.2
DE	0.6	0.2	0.2	0.1	-0.1	-0.2	0.0	0.0	0.0	0.2	1.6	1.5	1.4	1.1	0.4	0.0	-0.2	-0.3	-0.2	0.2
EE	0.5	-0.6	0.0	-0.3	-5.1	-4.9	-1.2	-1.4	-1.8	-1.3	2.0	-0.5	-0.3	-0.2	-7.2	-10.2	-10.7	-11.9	-9.9	-5.6
IE	-0.2	-0.9	-1.4	-1.6	-3.9	-1.7	-1.8	-1.1	-0.8	:	1.6	-0.1	-2.1	-3.9	-7.5	-8.3	-8.7	-8.2	-5.3	:
EL	-0.3	-0.1	0.1	0.1	-0.6	-0.2	-0.5	-0.8	-0.3	-0.9	0.2	0.5	0.1	-0.3	-0.2	-1.0	-1.2	-2.2	-2.0	-2.3
ES	0.3	-0.5	-1.1	-1.8	-2.8	-1.5	-1.4	-0.7	-0.1	-0.2	1.6	0.4	-0.7	-2.9	-6.3	-7.0	-7.2	-6.0	-3.6	-2.4
FR	0.2	0.1	-0.1	-0.3	-0.5	-0.4	-0.3	-0.1	0.0	0.1	1.3	0.8	0.4	-0.1	-0.8	-1.4	-1.5	-1.3	-0.7	0.0
IT	-0.2	-0.1	-0.1	-0.1	-0.8	-0.4	-0.6	-0.2	0.3	-0.2	1.0	0.8	-0.2	-0.5	-1.1	-1.6	-2.1	-1.8	-0.7	-0.7
CY	:	:	:	:	:	:	:	:	:	:	2.4	2.7	3.5	1.9	1.4	-0.5	-2.0	-1.6	-1.3	-0.2
LV	-0.2	0.1	-1.3	-4.0	-3.6	-5.0	-4.6	-2.0	-1.8	1.3	5.6	3.5	0.3	-5.4	-8.2	-13.2	-16.5	-14.7	-12.9	-6.7
LT	-0.3	-0.4	-0.1	-1.4	-3.4	-1.3	-1.6	-2.6	-2.1	-0.4	0.7	-0.7	-1.1	-1.4	-5.1	-6.7	-7.3	-8.1	-7.3	-6.7
LU	1.3	1.1	1.0	0.5	-0.2	0.0	0.1	0.3	0.3	:	5.2	4.9	4.8	4.0	2.3	1.2	0.3	0.1	0.7	:
HU	0.1	-0.7	0.5	-0.8	-1.1	-0.9	-1.1	0.3	-0.4	0.6	-1.6	-1.9	-0.8	-0.9	-2.4	-2.3	-3.9	-2.7	-2.2	-0.5
MT	:	:	:	:	:	:	:	:	:	:	2.7	3.0	2.6	2.1	0.8	-0.5	-1.5	-0.9	1.6	0.4
NL	0.4	0.4	0.1	-0.1	-0.3	-0.9	-0.6	0.1	-0.3	:	1.9	1.8	1.2	0.9	0.1	-1.2	-1.9	-1.6	-1.7	:
AT	0.5	0.6	0.2	0.0	-1.1	-0.2	0.1	0.2	0.2	0.2	2.2	2.0	1.5	1.4	-0.4	-1.1	-1.2	-0.9	0.2	0.8
PL	2.0	0.1	0.4	0.5	0.0	-0.2	-0.1	-0.1	-0.3	1.1	4.8	3.5	3.8	3.1	1.0	1.1	0.3	-0.8	-1.0	0.8
PT	0.3	0.2	-0.6	-0.1	-1.3	-0.8	-0.9	0.1	-0.1	-0.6	0.9	1.2	-0.2	-0.1	-1.6	-2.8	-3.1	-2.8	-1.7	-1.5
RO	:	:	:	:	:	:	:	:	:	:	-0.3	-0.8	-0.2	0.4	-1.6	-2.1	-1.8	-1.7	-1.6	-2.2
SI	0.8	0.7	0.3	0.0	-0.7	-0.9	-0.8	-0.8	-0.5	-0.3	3.2	3.0	2.7	2.3	0.4	-1.6	-2.8	-3.5	-2.9	-2.1
SK	0.2	1.0	1.4	-0.7	-2.3	0.0	-0.7	-0.3	-0.9	-0.3	2.8	2.9	3.2	2.1	-0.4	-1.3	-3.7	-4.0	-3.0	-2.3
FI	0.4	0.7	-0.6	0.2	-1.2	-1.4	-1.0	-0.5	0.6	0.4	2.5	2.1	1.0	0.8	-0.9	-2.9	-3.4	-4.1	-2.4	-0.4
SE	:	:	:	:	:	:	:	:	:	:	1.7	1.3	0.7	0.0	-1.2	-2.2	-2.6	-2.1	-0.5	0.8
UK	0.4	0.1	-0.4	-0.2	-0.5	-0.9	-0.1	0.0	-0.2	0.7	1.5	1.2	0.4	-0.2	-1.1	-2.1	-1.7	-1.4	-1.2	0.4
EU27	0.4	0.1	-0.1	-0.3	-0.8	-0.7	-0.5	-0.2	-0.2	0.0	1.7	1.2	0.8	0.2	-1.2	-1.8	-2.2	-2.1	-1.5	-0.6

Source: Eurostat, National Accounts. Data seasonally adjusted for change on previous quarter; data non-seasonally adjusted for change on previous year.

Note: Shaded areas for Member States indicate quarters of negative employment growth.

(10) See section 3.1 of Chapter 2.

Chart 11: Change in employment in EU Member States from 2008q2 to 2010q2



Source: Eurostat, National Accounts. Data non-seasonally adjusted.

Note: * Data for LU, NL and IE 2008q1 - 2010q1.

with zero employment growth also being recorded in the following two quarters, and in the second quarter of 2010 employment growth, albeit limited at 0.2%, resumed. As a result, by the second quarter of 2010 the level of employment had hardly changed compared with that in the second quarter of 2008, and was in fact even slightly up (by 0.2%).

In Poland, the strong employment expansion observed in 2006 and 2007 started to moderate from the

second quarter of 2008 on, but quarter-on-quarter growth finally turned negative only in the second quarter of 2009. It then stayed negative through to the first quarter of 2010, although rates of contraction were relatively modest (in the range 0.1-0.3% in each quarter), and turned positive again in the second quarter of 2010 as employment expanded by a healthy 1.1%. Due to the very shallow employment contraction combined with continued expansion over much of 2008 and in the

second quarter of 2010, by mid-2010 employment levels were close to 2% above those recorded in the second quarter of 2008.

Since the second quarter of 2008, labour market performances have deteriorated across all the other EU Member States at some stage over the last two years, although the severity of the impact on employment varies considerably. Alongside Spain, employment contraction by the second quarter of 2010 had been particularly severe in the Baltic States (Estonia, -15%; Latvia, -19%; and Lithuania, -13% on levels in 2008q2) and Ireland (-12%), in line with the sharp declines in economic activity in those countries and the comparatively long periods of strong employment contraction. These Member States have all been affected by severe housing market downturns leading to substantial employment contraction in the construction sector. In contrast to the general trend of overall employment declines by the second quarter of 2010, some Member States (Belgium and Luxembourg, in addition to Germany and Poland) have already seen employment recover to the levels of mid-2008 or even registered significant increases.

Box 2: EU job losses have been limited compared to the fall in economic activity

The fall in employment in the EU was much weaker than the overall fall in economic activity...

The fall in employment in the EU and most Member States has been significantly less than the decline in economic activity during the crisis. For the EU as a whole, the peak-to-trough contraction in economic output (between 2008q1 and 2009q2) was a substantial 5.3%, while the peak-to-trough contraction in employment (between 2008q2 and 2010q1) was only 2.7%, implying an elasticity of employment to GDP declines of 0.5. This compares with a much larger elasticity of peak-to-trough employment to GDP declines of 1.4 in the US, reflecting a total decline of 4.1% in economic output and an overall contraction of 6.0% in employment. The tempered response of employment in the EU has been in part due to extensive recourse to short-time working arrangements/reductions in working hours which were used to create internal flexibility, and which allowed firms to preserve jobs and to provide a certain amount of job security for workers.

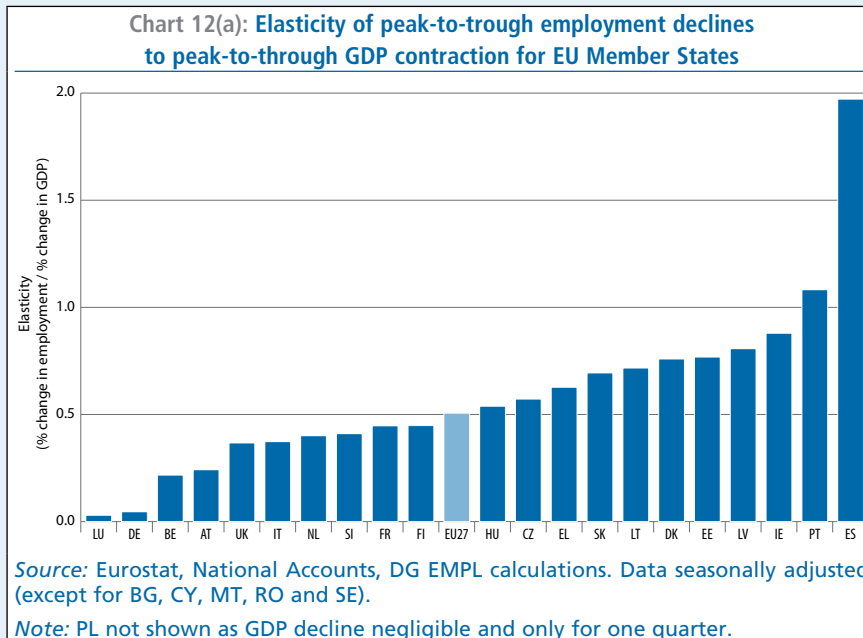
...however, the downward response of employment to the decline in economic activity has been much more pronounced in some Member States...

Nevertheless, in some Member States the overall downward response of employment to the decline in economic activity has been more pronounced. Elasticities of peak-to-trough⁽¹⁾ employment declines to peak-to-trough GDP declines suggest a comparatively strong reaction of employment to economic contraction in the Baltic States, Denmark, Ireland, Portugal and above all in Spain (Chart 12(a)).

In contrast, in many other Member States the impact on the labour market of the sharply negative trend in output was cushioned to some extent, being effectively absorbed rather through a decline in overall labour productivity. In particular, the elasticity of employment relative to the fall in economic activity in countries such as Austria, Belgium, Italy, the Netherlands, the UK and above all Germany, has been much more subdued. In the latter case, a total fall in output of around 6.6% was met by a decrease of only 0.3% in the level of employment.

(1) Based on peaks identified within the period from the last quarter of 2007 to the last quarter of 2008, and troughs within the period from the last quarter of 2008 onwards (or else the value recorded in 2010q2 if no clear minimum yet reached by that time).

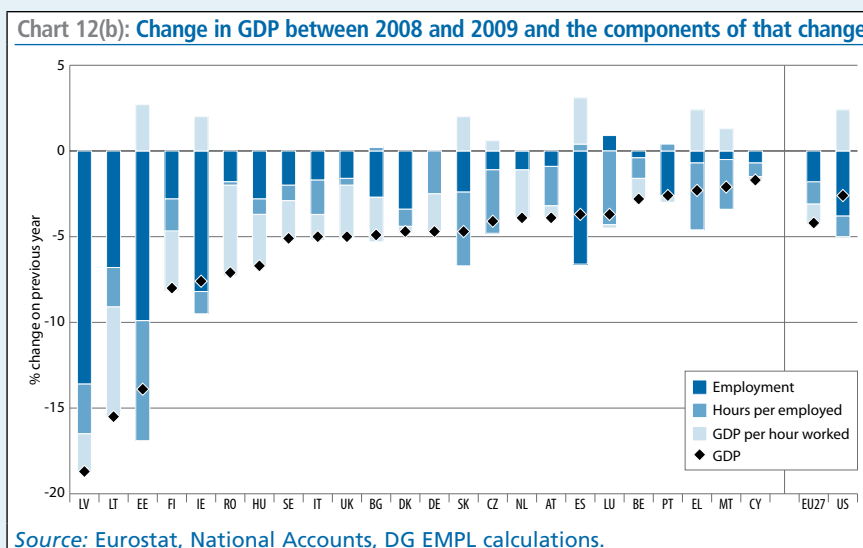
There are several reasons for the comparatively stronger reaction of employment in certain Member States. One key factor is the impact on, and importance of, the construction sector – one of the sectors hardest hit by the economic crisis and which accounts for an especially high share of national employment in countries such as Ireland and Spain. In this context, to a certain extent the variation across countries reflects productivity levels in the sectors which have been hit hardest. For example, in Germany the manufacturing sector was badly hit by plummeting exports but high productivity levels in this sector led to a comparatively small fall in employment relative to that in GDP, while in Spain the large contraction in the relatively low-productivity construction sector has led to a large fall in employment relative to the decline in GDP.



Another reason is the widespread use of internal flexibility in countries such as Austria, Belgium and Germany as opposed to the relatively limited (or non-existent) use of such arrangements in the Baltic States, Ireland and Spain. Furthermore, in the case of Spain the high share of workers in temporary contracts, who can be relatively easily dismissed, also in part explains its stronger employment reaction to the downturn. Indeed, as shown in Chapter 3, extensive use of temporary employment contracts in countries with highly regulated permanent contracts (such as in Spain) is likely to amplify the volatility of employment to economic shocks.

...reflecting the different patterns of adjustment in the components underlying the changes in GDP

Based on annual data from national accounts, it is possible to see the different patterns of adjustment across Member States in the components underlying the changes in GDP between 2008 and 2009 (Chart 12(b)), which also helps to explain the different elasticities of employment to the economic downturn.



For example, Austria, Belgium and Germany adjusted almost entirely through reducing hours per worker together with reduced productivity per hour (GDP per hour worked), with little change in employment. For Belgium and Germany the fall in GDP due to hourly productivity was just as important as that due to hours worked – short time working arrangements and other working hours adjustments were not the whole story.

The UK and Netherlands adjusted almost entirely through reduced employment and productivity per hour rather than reducing the average hours of workers (i.e. they absorbed some of the contraction by taking a loss in hourly productivity while changing average working hours relatively little). This explains why elasticities of employment declines to GDP declines were quite weak for these two Member States at the same time as reductions in hours worked were relatively limited. A similar situation applies to Bulgaria and Romania.

The important contribution from reduced hourly productivity suggests that employers in many Member States have also borne a considerable share of the adjustment costs alongside individuals (employment and reduced working hours) and governments through state-supported short-time working schemes (reduced working hours).

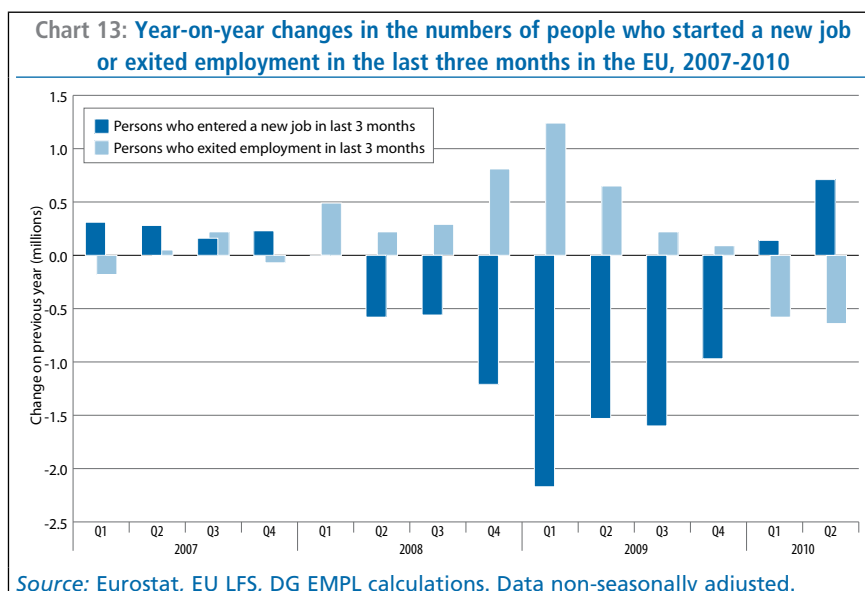
In contrast to the adjustment patterns in most other Member States, only Spain coped with the recession solely through employment reductions, while Ireland and Portugal were almost in this situation.

On aggregate 42% of the decline in the EU's GDP between 2008 and 2009 was accounted for by the drop in employment, 30% the fall in hours worked, and 28% the decline in productivity per hour worked. This contrasts markedly with the situation in the US, where employment was the main adjustment mechanism, with a much more limited decline in average hours worked while hourly productivity rose.

Employment Flows: people entering new jobs or exiting employment

Labour market trends during the crisis reflect two underlying phenomena: a decline in the number of persons who recently started a new job and an increase in the number who recently exited employment (i.e. who either lost or quit a job and did not enter a new one). This can be seen from EU labour force survey data, which provides data on persons who started a new job in the last three months (new hirings) and those who either quit or lost a job over the last three months and are no longer employed (newly out of employment).

Year-on-year changes in the level of new hirings show a clear downward adjustment from the second quarter of 2008 onwards, with the trough occurring in the first quarter of 2009 (Chart 13). Despite some moderation in the rate of year-on-year declines subsequently, even at the end of 2009 hirings were still down on the levels one year earlier. As a share of total employment, those employed with a new job amounted to 4.2% in the last quarter of 2009, up from the low of 3.5% in the first quarter but still well down on the average of



around 5% over 2007. It was only at the start of 2010 that year-on-year changes in hirings finally turned positive again, followed by a strong pick up in the second quarter. However, this may reflect more heavily those already in employment moving to another job rather than new (re-)entrants to employment, while those employed in a new job still only accounted for a relatively limited 4.2% of total employment in the second quarter.

In contrast, during the crisis the numbers of those who recently

exited employment rose considerably on corresponding levels a year earlier, again peaking in the first quarter of 2009 before the year-on-year changes moderated over 2009 to almost peter out in the last quarter and then turned negative in the first quarters of 2010. At around 2.0% of the employed population by 2010q2, the share of those exiting employment appears to have broadly moderated back to the pre-crisis levels observed in the years preceding 2008, having risen to as high as 3.0% at the height of the crisis in first quarter of 2009.

Sectoral employment and restructuring

The fall in employment levels from the second quarter of 2008 to the second quarter of 2010 resulted from a broad contraction across almost all sectors. In absolute terms job losses have been strongest in industry, where employment has fallen by 4.8 million (or 8.9%), compared to only 0.2 million (or 0.1%) in services and 0.6 million (or 4.7%) in agriculture.

At a more detailed level, the manufacturing and construction sectors have experienced the largest employment contractions, together with the combined trade/hotels & restaurants/transport & communications sector. As mentioned before, this reflects the marked drop in economic activity in these sectors as consumers deferred big-ticket purchases and the impact of the housing bubble collapse on the construction sector. All three sectors experienced broadly increasing rates of employment contraction over 2008 through to the first quarter of 2009, following which rates of contraction generally moderated though still remaining particularly high in construction and manufacturing until the second quarter of 2010 (Chart 14).

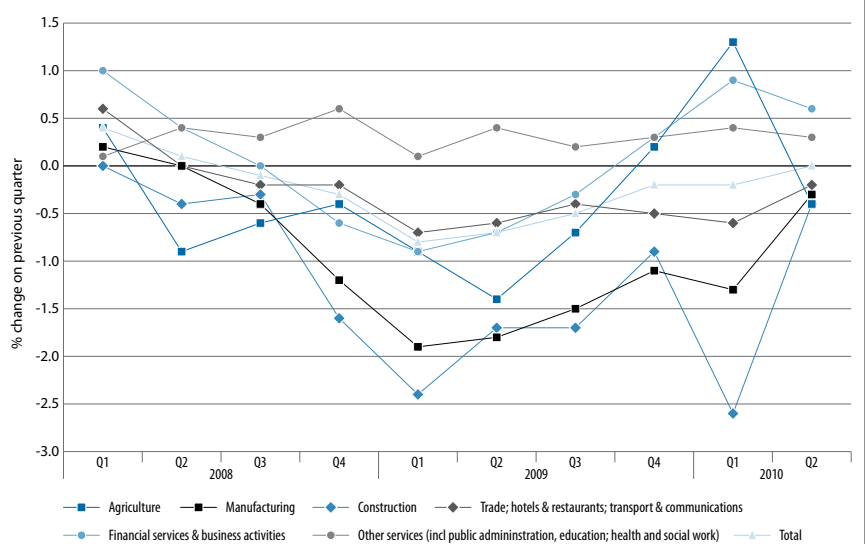
Over the latter half of 2009 and into 2010 all sectors which had previously experienced declining employment recorded an improvement (notwithstanding a sharp fall in the construction sector in the first quarter of 2010, reflecting the severe winter conditions), with substantially lower rates of employment losses, while the financial services sector has even returned to positive employment growth since the end of 2009. This suggests contraction has not shifted away from industry and construction to spread out more strongly across other sectors, but rather that all are gradually recovering. The other services sector (mainly including the public sector, education and health/social

work) is the only sector which maintained positive growth during the last two years, but concerns are rising about the possibility of significant future job losses in the public sector, as many Member States face public spending cutbacks in order to reduce government deficits. Indeed the public sector is likely to play a key role in labour market developments in the near term as some governments attempt to stabilise employment through public spending while others attempt to reduce

spending and public employment to balance their budgets.

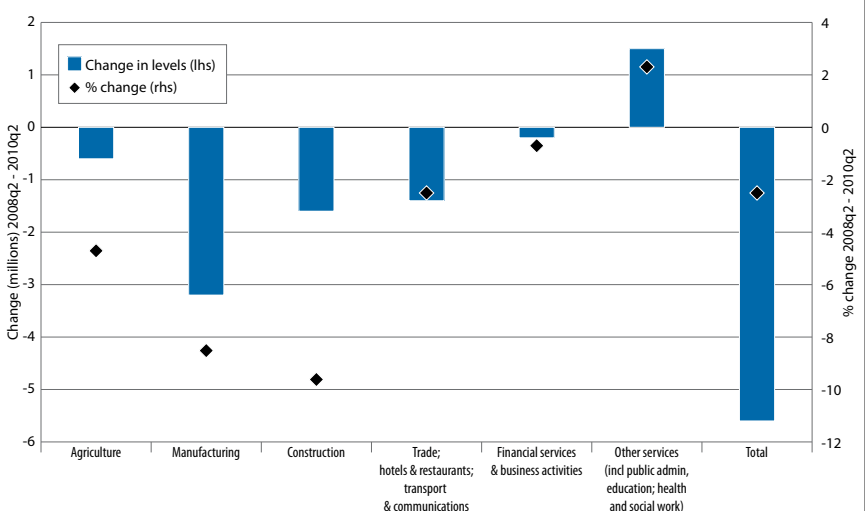
Looking back over the whole period since the second quarter of 2008, total employment contraction of around 5.6 million mostly reflects significant drops of 3.2 million in manufacturing and 1.6 million in construction (equivalent to falls in sectoral employment of 8.5% and 9.6% respectively). Indeed, manufacturing on its own accounts for around 45% of all sectoral employment declines

Chart 14: Sectoral employment growth rates (quarter-on-quarter) for the EU, 2008-2010



Source: Eurostat, National Accounts. Data seasonally adjusted.

Chart 15: Sectoral employment changes for the EU from 2008q2 to 2010q2



Source: Eurostat, National Accounts. Data non-seasonally adjusted.

over this period, while the two sectors combined account for over two-thirds. Within services, a similarly strong contraction in the combined trade/hotels & restaurants/transport & communications sector of 1.4 million (although this equates to only 2.5% of overall employment in this sector), together with a fall of 0.2 million (or 0.7%) in the financial services/business activities sector were almost offset by employment expansion of 1.5 million (or 2.5%) in other services (Chart 15).

The impact on the manufacturing industry sector...

The impact of the crisis on manufacturing industry has been particularly severe, with a dramatic fall in output initially before recovering somewhat since the middle of 2009. The resulting impact on manufacturing employment has been substantial, although cushioned to a certain extent by overall hours worked falling even more markedly during the initial stage of the crisis, this reflecting the extensive use of short-term working in a number of industrial sectors, particularly in the automotive, engineering, basic metals, and the paper and paper products sectors.

The situation of the automotive sector is somewhat special. The sector initially faced a massive collapse

in output, before the implementation at national level of scrapping schemes helped stabilize consumer demand. While anti-crisis policy measures targeted at the motor vehicle industry have alleviated the initial scale of contraction in the passenger-car segment, and helped avoid massive job losses, they risk to have brought forward sales rather than stimulate new demand. Similarly, there is a risk that the widely used short-time working schemes and labour hoarding in the automotive industry and its upstream suppliers could eventually translate into further adjustments in employment in the future.

The intermediate goods sectors, notably wood, paper and paper products, chemicals, metals, and non-metallic mineral products were also significantly affected by the crisis. Facing a severe contraction in final demand and surging uncertainty, downstream industries quickly moved to eliminate stocks of intermediate goods, resulting in some very large initial reductions in both demand and output for these sectors. However, these industries have also experienced strong cyclical adjustments in previous downturns, and are highly capital intensive. Employment has fallen by much less than output, mainly due to the extensive use of short-term working and some

significant labour hoarding in the hope of a quick recovery to pre-crisis output levels.

In contrast, there are a number of sectors that are relatively non-cyclical, notably food and beverages and pharmaceuticals. The current crisis has not significantly worsened the picture in these sectors, and reductions of employment seem to have been limited. In addition, some sectors such as shipbuilding and aeronautics respond to economic cycles with a substantial time lag. For the time being, the crisis has mainly affected the order books of shipbuilders and aeronautics manufacturers, with no major impact on employment levels so far.

Finally, a number of sectors, notably textiles, clothing, leather, and furniture, had been undergoing restructuring and downsizing already before the crisis. These sectors have experienced the most severe employment adjustments, since the recent downturn has tended to reinforce the longer-term contraction of output.

These sectoral trends are broadly reflected in European Restructuring Monitor data collected by the European Monitoring Centre on Change, which gives a supporting picture of the labour market impact of the crisis at sectoral level (Box 3).

Box 3: Restructuring developments in Europe

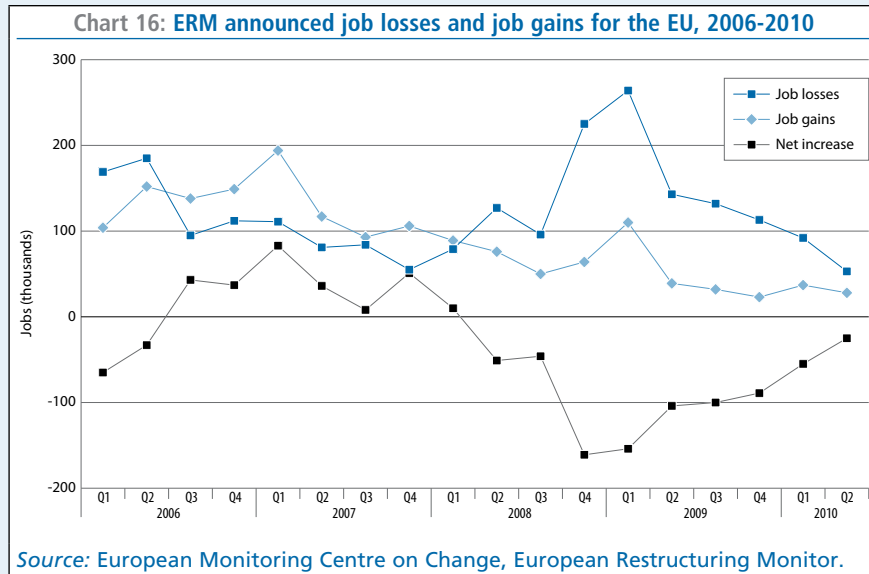
The European Restructuring Monitor (ERM) dataset covers the employment consequences of large-scale restructuring events in Europe. Data collection is based on news and media reports of individual restructuring cases, generally involving over 100 announced job losses or gains, identified by a network of national correspondents in the EU-27 and Norway. The following provides a summary analysis of recent ERM data⁽¹⁾ focusing in particular on the close to 3 500 ERM case factsheets recorded during the two-year period between 2008q2 and 2010q2 – i.e. the period just before, during and after the recent severe recession. In some cases, earlier data is presented with a view to drawing out some specificities of the restructuring activity during the crisis.

Announced job losses outnumbered job gains by a ratio of 3 to 1...

After recording significantly greater announced job gains than losses for much of 2007 and the first quarter of 2008, ERM data from 2008q2 onwards demonstrates clearly the impact of the economic crisis (Chart 16). The ratio of announced job losses to new jobs created during the period was approximately 2.7:1. Total announced job losses from restructuring captured by the ERM amounted to over 1 248 000 jobs,

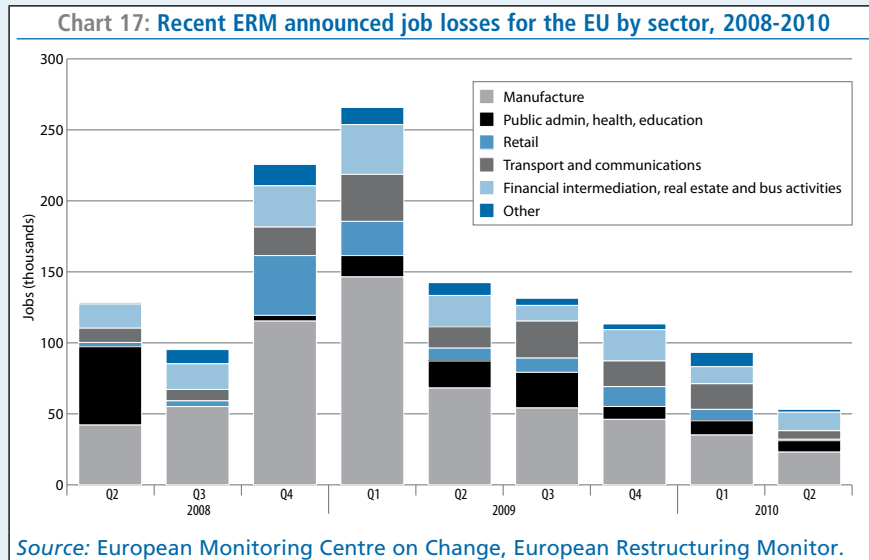
(1) Summary based on extraction from ERM dataset on July 5th 2010.

while just over 458 000 new jobs were announced. The impacts of the crisis were most obvious in 2008q4 and 2009q1, in both of which over 200 000 job losses were announced. Since 2009q2 restructuring activity has moderated significantly though job losses continue to outnumber job gains.



Manufacturing accounted for nearly half of large-scale restructuring job losses during the period...

Manufacturing accounted for 47% of all announced job losses in the ERM during the period 2008q2-2010q2 (Chart 17), compared to a longer-run average of 40%. The share of job losses also increased notably for the retail sector – especially during the peak quarters of the crisis in 2008q4 and 2009q1, while for the predominantly publicly-funded sectors (health, education and public administration) the shares declined compared to their long-run averages.



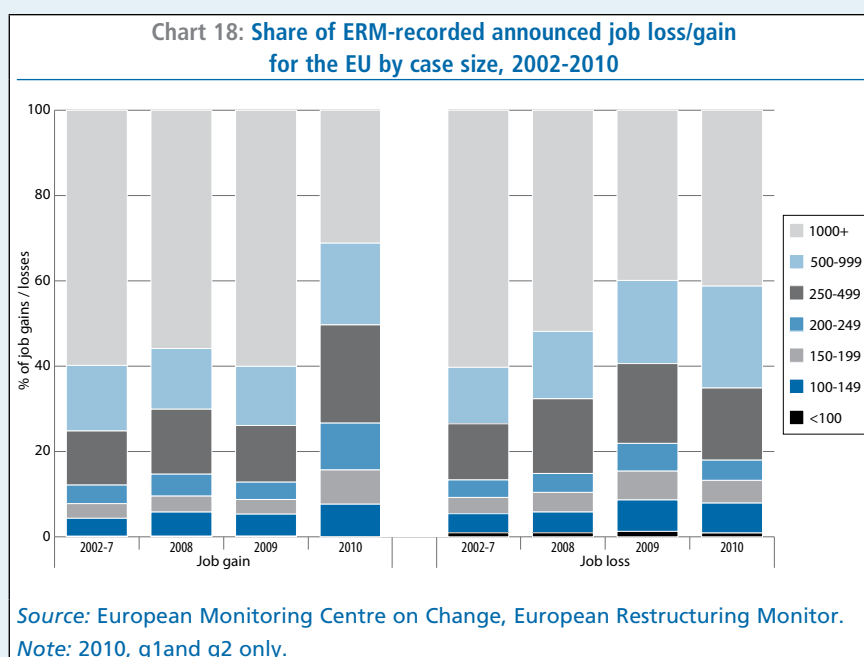
Within manufacturing, car manufacturing was the subsector that suffered the highest job losses. It accounted for nearly a quarter of total manufacturing job losses (144 000 out of 585 000) while related subsectors such as the manufacture of basic metals and of machinery/equipment also figure amongst the top job-loss subsectors. Notwithstanding its prominent role in the crisis and its aftermath, the share of restructuring job losses in financial services has remained steady thus far at around 10% of the total.

The manufacturing sector accounted for 29% of new jobs announced over the period (reduced from a longer-run average of 41%) while the retail sector was dynamic in terms of job creation as well as job loss. It accounted for a sharply increased share (24%) of job creation as large, mainly discount retailers such as Aldi, Tesco and Asda announced plans for domestic and international expansion.

... an increased share of announced job loss cases were medium-sized (250-1000 jobs) as opposed to large cases (>1000 jobs)...

Partly reflecting inherent case-size biases in the ERM, the share of announced job loss in large-scale cases involving at least 1000 job losses has varied between 40% and 60% over the period (Chart 18). The share in medium-sized cases and smaller cases increased markedly during the crisis (2008-9) before beginning to fall back in early 2010.

In terms of job gain, large scale cases involving at least 1000 new jobs account for the majority (around 60%) of overall job gains recorded in the period 2002-2009. The pattern in the first semester of 2010, as growth has resumed, has however also been quite distinctive. The share of jobs in medium-sized cases involving 150-499 jobs has doubled (from 21% to 42%).



The share of announced job loss due to bankruptcy/closure increased while those due to offshoring and relocation decreased.

Table 3: Share (%) of job loss by restructuring type

Restructuring Type	2002- 2008Q1	2008Q2-2010Q2
Bankruptcy/Closure	14.3	22.9
Internal restructuring	73	68.9
Merger/Acquisition	4	3.3
Offshoring/Delocalisation	5.5	3.4
Other	0.4	0.4
Outsourcing	1.2	0.4
Relocation	1.6	0.6
Total	100	100

Source: European Monitoring Centre on Change, European Restructuring Monitor.

The catch-all category of internal restructuring accounted for around two-thirds of total announced job losses in ERM restructuring cases in 2008-2009 (Table 3). Two contrasting impacts of the economic crisis have been evidenced in the share of restructuring job losses accounted for by offshoring and by bankruptcy/closure. Over 2008q2-2010q2, offshoring accounted for its lowest share of announced job losses (3%) since the ERM began while bankruptcy accounted for its highest (23%).

This is consistent with expected patterns of restructuring in a severe recession, especially one with a strong financial component. Higher levels of business failure and retrenchment occur and there is less emphasis on expansion or diversification via offshoring and relocation. From this perspective, the most recent data showing a (modest) increase in the share of offshoring may be considered a hopeful signal of recovery. Major bankruptcies were concentrated in the retail sector with Woolworths (UK, December 2008, 27 000 job losses) and Arcandor (Germany, June 2009, 5 000 job losses) emblematic of the vulnerability of even the most well-known retail groups (Table 4).

Table 4: Top eight cases of job loss for the EU, 2008Q2-2010Q2 (excluding public administration cases)

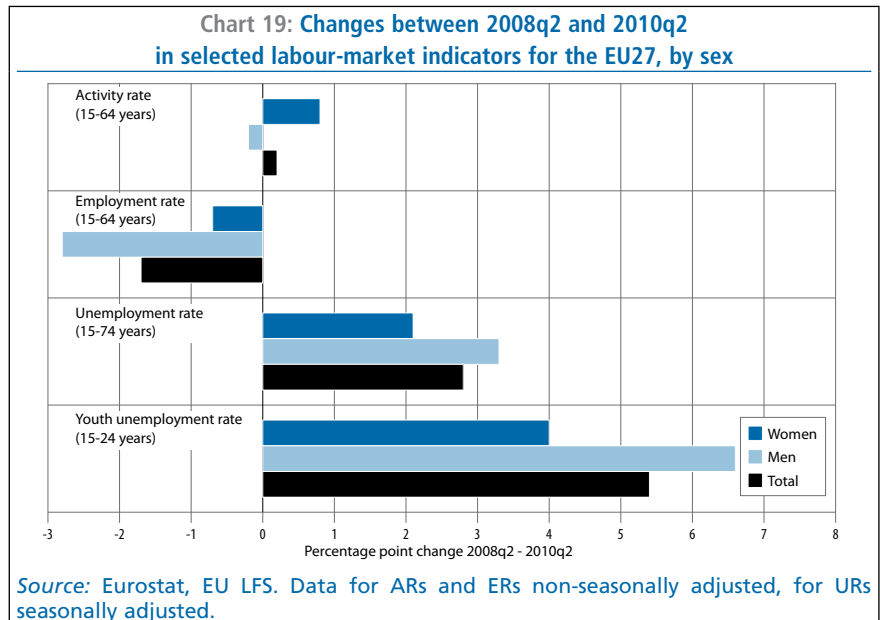
Date	Company	Announced job losses	Country	Sector	RestructuringName
Dec 2008	Woolworths	27000	UK	Retail	Bankruptcy/Closure
July 2009	TNT	11000	NL	Transport / communication	Internal restructuring
Jan 2009	PKP Cargo	9000	PL	Transport / communication	Internal restructuring
Aug 2008	Commerzbank	9000	EU	Financial services	Merger/Acquisition
Feb 2010	Opel	8369	EU	Manufacturing	Internal restructuring
Jan 2009	Royal Bank of Scotland (RBS)	6800	UK	Financial services	Internal restructuring
Jan 2010	CFR Marfa (Romanian national freight railway company)	6380	RO	Transport / communication	Internal restructuring
Nov 2009	PSA Peugeot	6000	FR	Manufacturing	Internal restructuring

Source: European Monitoring Centre on Change, European Restructuring Monitor.

2.2.3. Unemployment

In spite of the difficult labour market conditions, at EU level the average activity rate has essentially remained unchanged since the crisis began, staying very close to the 71% level throughout the period from the second quarter of 2008 (70.9%) to the second quarter of 2010 (71.1%). This indicates that the effects of the crisis on total labour supply have been very limited to date, with no significant net withdrawal from the labour market (and if anything marginally the opposite, driven by the continued trend of increasing labour market participation by women). As a consequence, the crisis (and the subsequent employment contraction) appears not to be resulting in a noticeable reduction in overall labour market participation, neither for men nor for women, although there are a few exceptions at Member State level, but rather is focused almost entirely in its impact on unemployment (Chart 19).

The development in labour force participation in the EU contrasts with developments in the US, where during 2008 and 2009 the deterioration of the labour market was accompanied by a drop in the participation rate (by 2010q1 it was about 1.3 percentage points lower than in 2008q1). The relative stability in

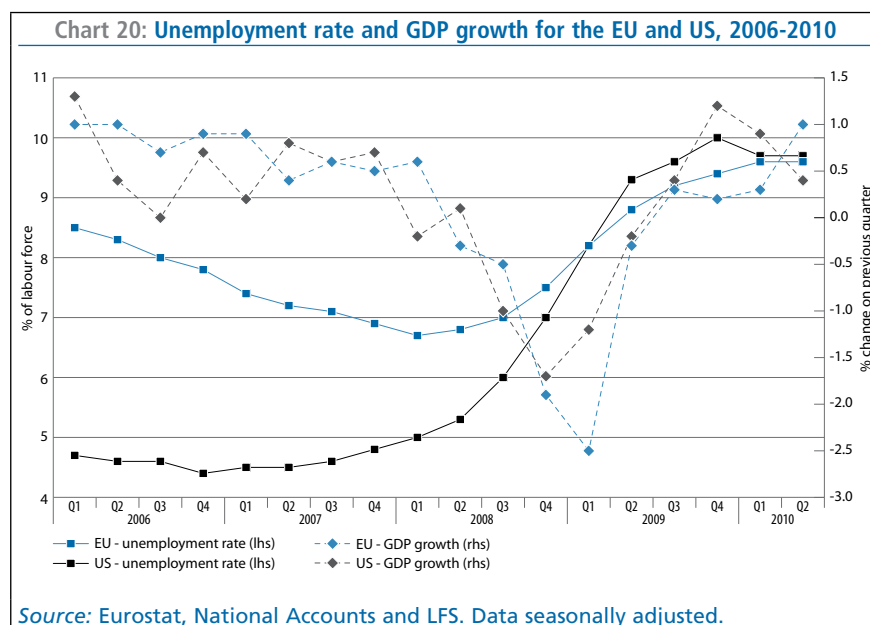


the EU labour force can be seen as a positive sign for prospects in the recovery, as any decline in participation during the recession could have turned into persistently lower labour supply during the recovery, hampering the functioning of the labour market through labour shortages and higher wage pressures.

Overall the European labour market has held up relatively well to the economic crisis, especially considering the reaction feared when the crisis first broke out. Although unemployment has risen, it has done so by less than might have been feared given the strength of the recession and

the sharp declines in confidence. For example, despite the sharper economic downturn and stronger falls in business confidence in the EU compared with the USA, the increase in the EU unemployment rate during the crisis has been considerably less dramatic (Chart 20).

Although the unemployment rate in the EU has risen sharply since the first quarter of 2008, the increase has been much smaller than in the United States, where the rate has overtaken that of the EU despite having been much lower at the start of the crisis. By the second quarter of 2010, the unemployment rate in



the EU had risen to 9.6%, up 2.9 percentage points compared to the low in the first quarter of 2008, while in the US it had increased by a more substantial 5.5 percentage points on the second quarter of 2007 (after which unemployment generally rose continuously) by the time it peaked at 10.0% in the last quarter of 2009, before falling to 9.7% in the following two quarters. Indeed, unemployment in the US more than doubled relative to the low of spring 2007, compared to an increase of around 45% in the EU on the recent trough in spring 2008. Overall, these rises translate into an average monthly increase in the unemployment rate of 0.13 percentage points for the EU over two years, compared with a higher monthly average rise of 0.20 percentage points over around two and a half years in the US.⁽¹¹⁾

There are several reasons which may help to explain the lower rise in unemployment in the EU compared to the US. These include the later onset of the economic downturn in the EU, the greater exposure of the US economy to sectoral shocks in the financial, real estate and construction sectors, and the stronger employment protection legislation in the EU.

However, to a large extent the relative resilience of the EU labour market reflects the increased use of internal adjustment measures (short-time working, temporary suspension of production etc.) during the crisis, which allowed many EU firms to avoid reducing their workforce, especially in countries such as Germany. Although firms in both the EU and US responded to the recession by reducing the average working hours of employees, in the US this effect has been dwarfed by the much greater contribution of job shedding to the reduction in total hours worked, while in the EU proportionally more of the reduction in total hours worked occurred through reductions in the average weekly hours of employees. Indeed, while reducing staff levels was the immediate response of US firms, EU firms reacted by reducing working time instead where possible.

Nevertheless, the faster and stronger economic recovery in the US in late 2009 and early 2010, has positively affected its labour market recently. The unemployment rate in the US has possibly peaked – after reaching 10.1% in October 2009 it has subsequently fallen, dropping back to 9.5% by June 2010.

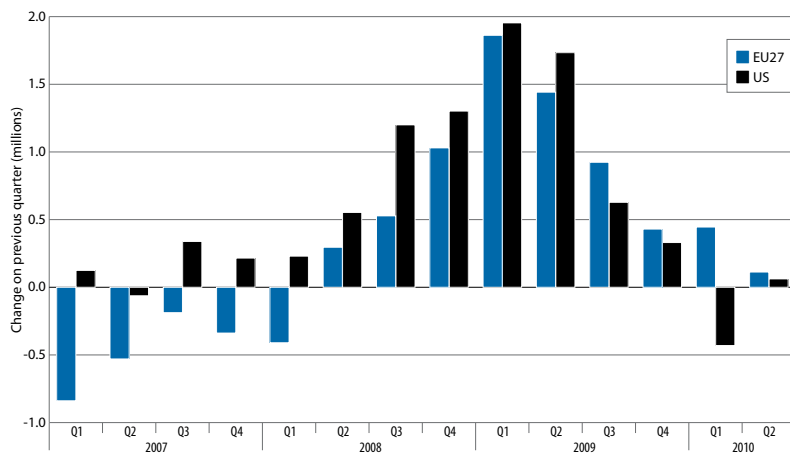
Similarly, the unemployment rate in the EU has recently shown signs of stabilising, having remained unchanged at 9.6% since February 2010. The gap between the US and EU unemployment rates, as high as 0.7 percentage points in favour of the EU in October 2009, had consequently disappeared by mid-2010.

Focusing on underlying movements in levels of unemployment indicates that in both regions the increase was sharpest in the first quarter of 2009, when the number of unemployed rose by around 1.9 million in the EU as well as in the US (Chart 21). However, for the US the main period of unemployment rises occurred between 2008q3 and 2009q2, while for the EU it occurred slightly later, between 2008q4 and 2009q3. The latest developments appear to be more favourable in the US. In the first quarter of 2010, US unemployment levels fell for the first time in nearly three years. Given the fragile economic situation, however, it is too early to confirm a recovery of the US labour market, and indeed unemployment rose again slightly in the second quarter. In the EU, unemployment has continued to rise, though much more slowly than in 2009.

It has now been a year since the EU economy started to recover from deep recession, but it may take some time before the fragile pick-up in economic activity can reverse the trend in the labour market. Despite some signs of improvement in the general economic situation, in many countries the unemployment rate has kept increasing even over the first half of 2010, particularly in Bulgaria, Estonia, Lithuania and Spain, although in some cases a stabilization of the unemployment rate has been registered (the Czech Republic, Italy, Luxembourg, Romania and the UK) and even clear falls in several countries (Austria, Denmark, Finland, Germany, Hungary, Malta and Sweden) (Chart 22).

(11) Unemployment changes, rates and levels are seasonally adjusted.

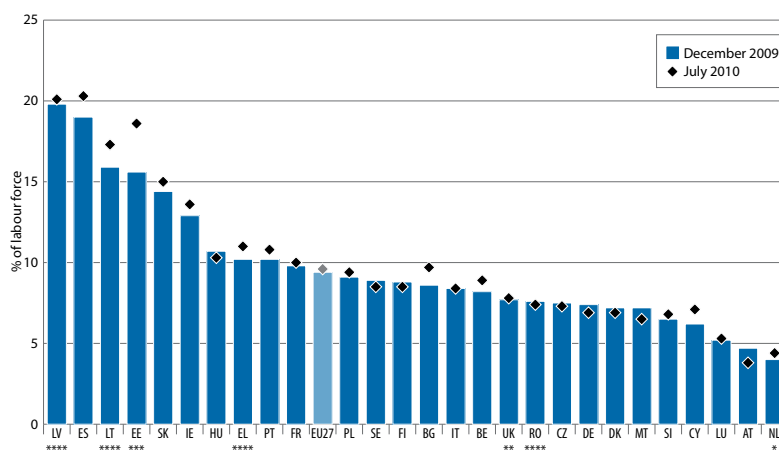
Chart 21: Quarterly change in the number of unemployed in the EU and US, 2007-2010



Source: Eurostat, LFS. Data seasonally adjusted.

Recent data clearly show that rises in unemployment at EU level have been much more subdued since late 2009, and that the trend finally appears to be reversing (Chart 23). Unemployment in the EU may have peaked, having fallen by 127 000 since April this year, driven by falls in unemployment among young people and adult men. Signs that the particularly marked rises in youth unemployment (especially among young men) during the crisis have abated, and even started to reverse, are especially positive. Even so, total unemployment remained at a seasonally adjusted 23.1 million by July 2010, still 7.1 million higher than in March 2008, when unemployment in the EU was at a low. As a result of two years of continuously rising unemployment up until spring this year, almost one-in-ten economically active people in the EU is now unemployed.

Chart 22: Recent developments in monthly unemployment rates for the EU Member States, December 2009 and July 2010

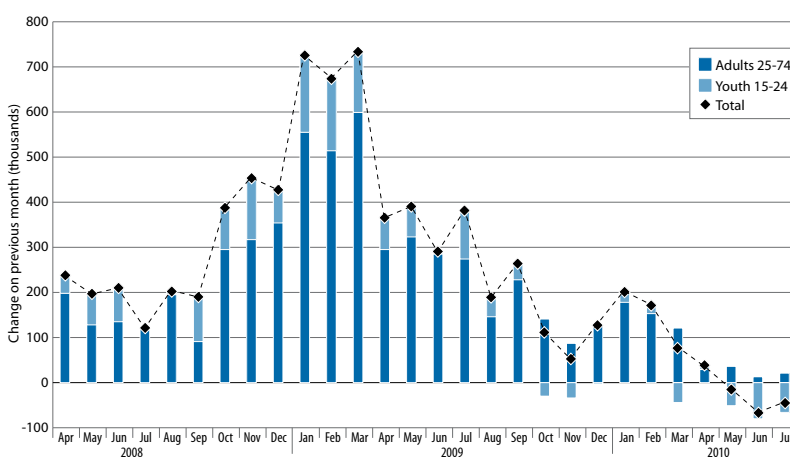


Source: Eurostat, series on unemployment. Data seasonally adjusted.

Note: * Data for NL 2010 Jun, ** UK 2010 May, *** EE 2010q2 and **** LV, LT, EL and RO 2010q1.

Underlying the EU average are contrasting developments across individual Member States, both in terms of the timing of the onset of the rise in unemployment and its severity. The onset of the rise in unemployment varies considerably from country to country. Ireland, Italy and Spain were the Member States where unemployment first started to rise, as early as the first half of 2007, while in Bulgaria, Germany and Slovakia, it only bottomed out some one and a half years later in the last quarter of 2008, before subsequently heading upwards.

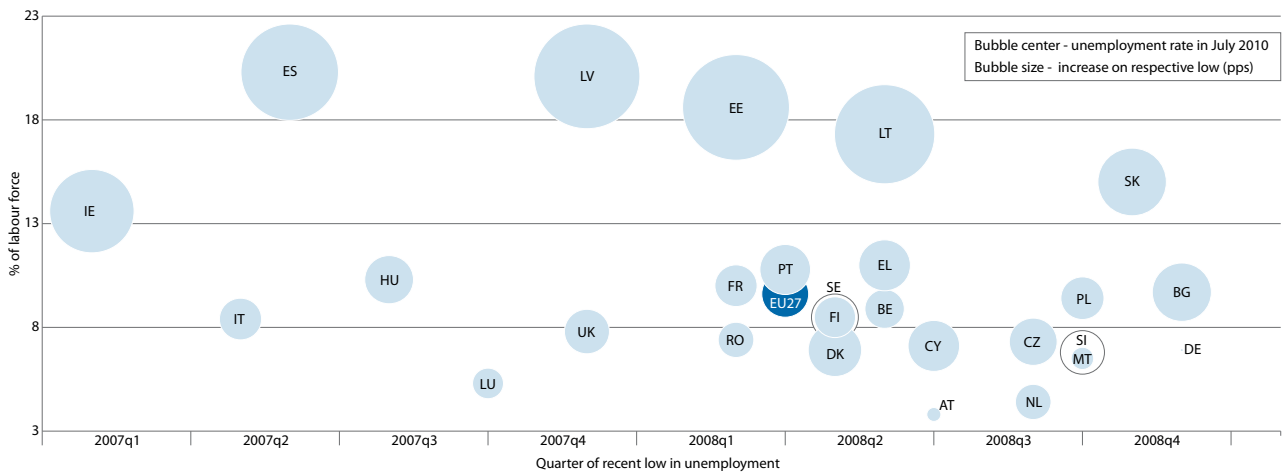
Chart 23: Changes in unemployment levels in the EU, 2008-2010



Source: Eurostat, series on unemployment. Data seasonally adjusted.

Although unemployment rates have risen in all Member States at some stage over the last two years, the severity of the increase varies considerably across countries, and does not depend solely on the time elapsed since it began to rise. The increase in unemployment has been precipitous in certain Member States (unemployment rates more than doubled since the respective onset of rising unemployment in Denmark and Spain, tripled in Ireland, and quadrupled or more in the Baltic States), while in others such as Austria, Belgium, Luxembourg, Malta and the Netherlands, and above all Germany, the rise has been relatively limited (Charts 24 (a) and (b)).

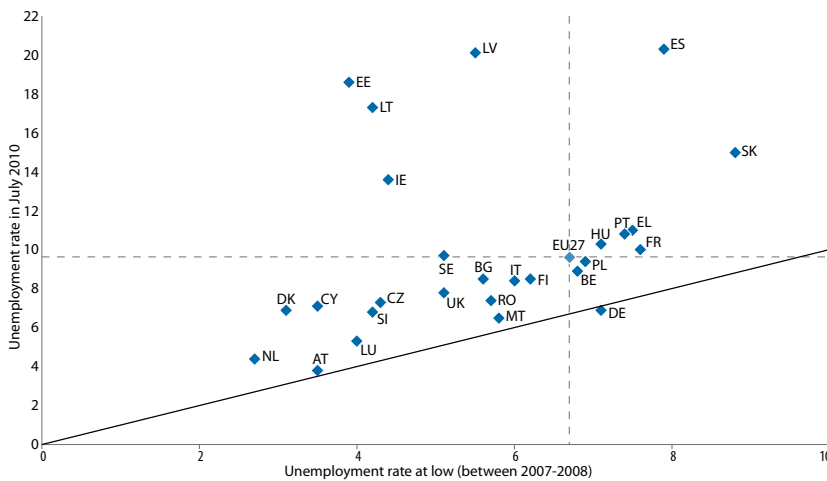
Chart 24: Changes in unemployment levels in the EU Member States on respective recent lows
(a) Starting point of rising unemployment and size of increase



Source: Eurostat, series on unemployment. Data seasonally adjusted.

Note: Data for NL refers to 2010 Jun, the UK to 2010 May, EE to 2010q2, and EL, LV, LT and RO to 2010q1.

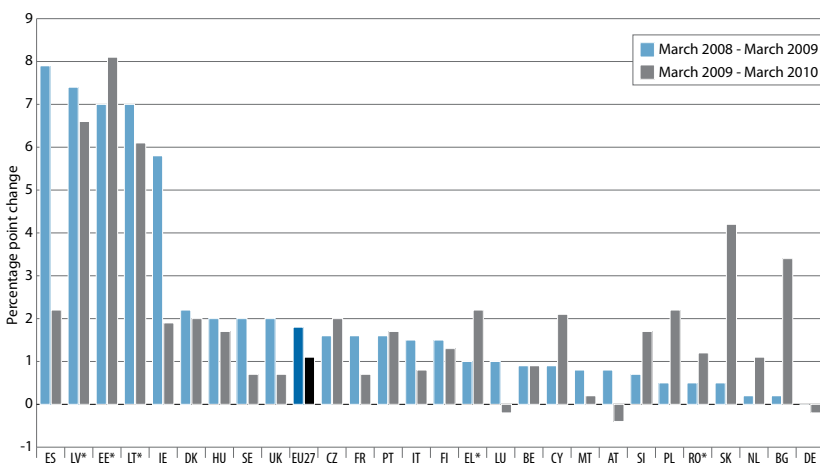
(b) Comparison of increase of unemployment rates on recent lows



Source: Eurostat, series on unemployment. Data seasonally adjusted.

Note: Data for NL refers to 2010 Jun, the UK to 2010 May, EE to 2010q2, and EL, LV, LT and RO to 2010q1.

Chart 25: Change in unemployment rates for the EU Member States, March 2008 - March 2009 and March 2009 - March 2010



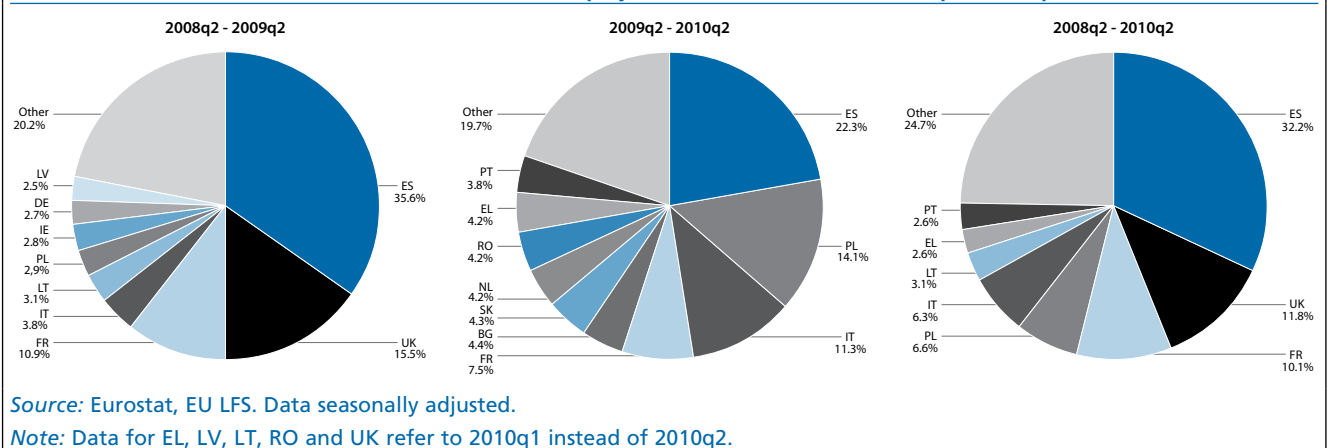
Source: Eurostat, series on unemployment. Data seasonally adjusted.

Note: *Data for EE, EL, LV, LT and RO refers to 2008q1-2009q1 and 2009q1-2010 q1.

In most Member States, and for the EU as a whole, increases in unemployment in the first year after the unemployment rate first began to rise at EU level (i.e. between March 2008 and March 2009) were higher than in the subsequent year (from March 2009 to March 2010). Among those Member States most affected to date, the increase in the unemployment rate generally moderated significantly in the second year of the EU labour market downturn in Ireland and Spain (down from rises of around 6-8 percentage points in the first year to around 2 percentage points in the second) and also to some extent in Latvia and Lithuania (although remaining high), but rises were at an even higher pace in Estonia (up from 7 to 8 percentage points). Increases in the unemployment rate also weakened notably in France, Italy, Malta, Sweden and the UK, while in Austria, Germany and Luxembourg rates actually declined over the second year. In contrast, and partly reflecting the later onset of the rise in unemployment, the increases intensified markedly in the second year of the EU labour market downturn in Bulgaria, Cyprus, Greece, the Netherlands, Poland, Slovenia, Slovakia and Romania (Chart 25).

During the first year of the labour market downturn (from 2008q2 to 2009q2), most (some 62%) of

Chart 26: Contribution to unemployment increase in the EU, 2008q2 – 2010q2

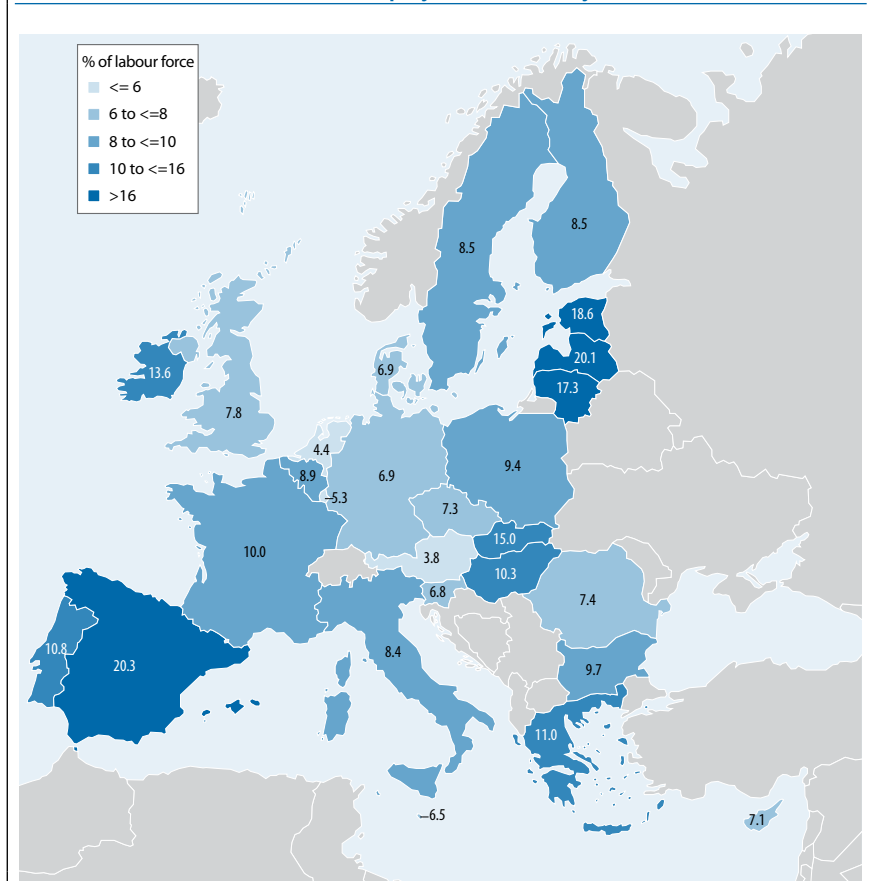


the increase in unemployment at EU level was accounted for by only three Member States – Spain (36% of the rise), the UK (15.5%) and France (11%) (Chart 26). The contributions to the rise at EU level were spread somewhat more evenly across countries in the second year (from 2009q2 to 2010q2), with Spain’s share for that year dropping to 22%, France’s to 7.5% and the UK’s to 3%. In contrast, the shares for the Bulgaria, Greece, the Netherlands, Portugal, Romania, and Slovakia, and especially for Italy and Poland, increased substantially, for the latter two to around 11% and 14% respectively.

Considering the whole period since the second quarter of 2008 to the second quarter of 2010, Spain alone accounts for almost a third of the total rise in unemployment in the EU, followed by most of the other larger Member States (the UK (12%), France (10%), Poland (7%) and Italy (6%)), while the contribution of some smaller Member States has also been significant. Of note, however, is the absence of any significant contribution from the EU’s largest Member State, Germany.

Around three years after unemployment first started to rise there, Spain (with underlying unemployment at 4.6 million by mid-2010) currently accounts for one in five of all unemployed persons in the EU, and its unemployment rate, at 20.3% in July 2010, is the highest of any Member State and more than twice as high

Chart 27: Unemployment rates, July 2010



Source: Eurostat, series on unemployment. Data seasonally adjusted.
 Note: Data for NL June 2010, UK May 2010, EE 2010q2, and for EL, LV, LT and RO 2010q1.

as the EU average. The particularly pronounced rise in unemployment in Spain reflects to a large degree the role played by the low-skilled-intensive construction sector that attracted many foreign workers from abroad and was subsequently hit by a particularly strong collapse of the housing bubble in that country. Among

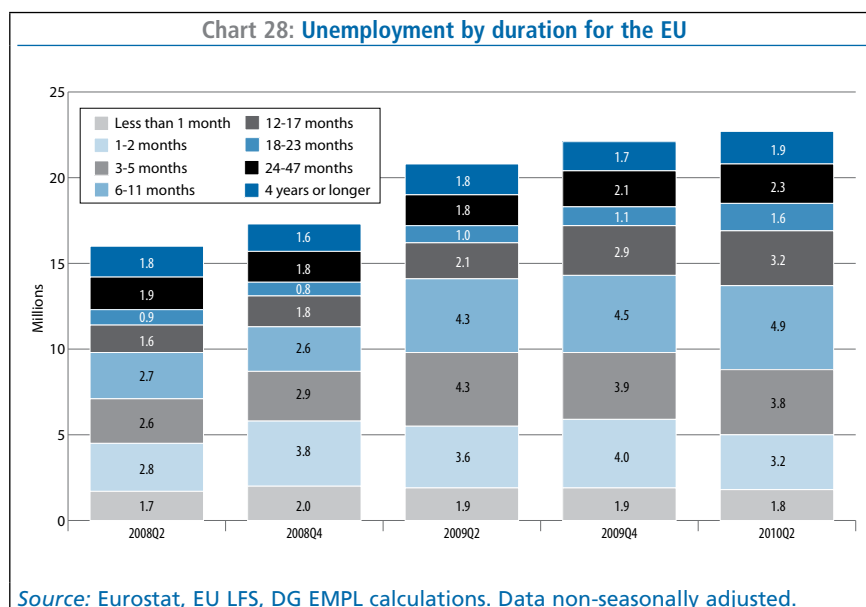
the remaining Member States, by mid-2010 the unemployment rate was also particularly high in Latvia (20.1%) as well as in Estonia, Lithuania and Slovakia (all with rates around 14–19%), but in contrast it remained remarkably low in Austria and the Netherlands (at 3.8% and 4.4% respectively) (Chart 27).

Unemployment duration and long-term unemployment

The constant rise (until very recently) in the numbers of those becoming unemployed, combined with fewer opportunities for a speedy return to employment, especially among the most disadvantaged groups, aggravates the risk of higher long-term unemployment.

In particular, despite recent improvements, the risk of a rise in long-term unemployment is still apparent from data on the size of the unemployed population by duration of unemployment. Most of the 22.5 million unemployed in mid-2010 had entered unemployment over the last year; in the second quarter of 2010 around 5 million persons had been unemployed for less than three months, 3.8 million for three to five months and 4.9 million for six to eleven months. The number of newly unemployed (i.e. those unemployed for less than three months) remained just below the level of a year earlier (5.5 million in the second quarter of 2009), but still above the level at the onset of the crisis (4.5 million in the second quarter of 2008). At the same time, the number of people unemployed for a medium-term spell (i.e. searching for a job for three months to a year) and most at risk of becoming long-term unemployed had increased markedly (by 60%) over the first year of the crisis, from 5.3 million to 8.6 million over the year to the second quarter of 2009, as a result of the increased influx into unemployment in the first half of 2009 together with the heightened lack of job opportunities. However it broadly remained at this level over the following year through to the second quarter of 2010 (Chart 28).

The chances of the recently unemployed leaving unemployment have worsened considerably, especially over 2008-2009. Out of around 7 million people who were unemployed for less than 6 months in the second quarter of 2008, 37% (2.6 million) were still unemployed half a year

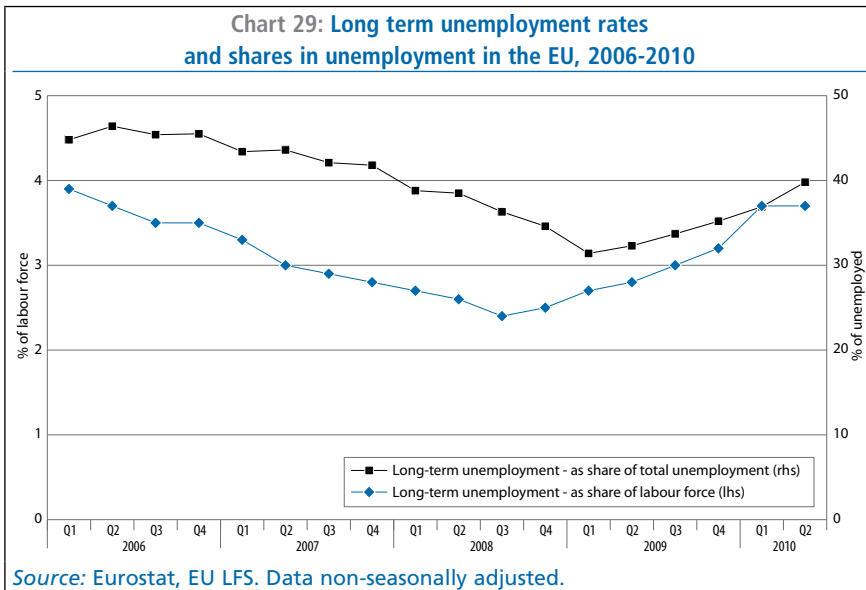


later. By the fourth quarter of 2008 the situation had deteriorated noticeably - out of the then 8.7 million people who were unemployed for less than 6 months, 50% (4.3 million) were still unemployed half a year later. And out of the 9.8 million people who were unemployed for less than 6 months in the fourth quarter of 2009, a similar share of 50% (equivalent to 4.9 million) were still unemployed half a year later. Furthermore, out of the 4.5 million who were unemployed for six months to a year in the fourth quarter of 2009, 72% (3.2 million) were still unemployed in the second quarter of 2010, and more than half (55%) of those unemployed for twelve to seventeen months in the fourth quarter of 2009 (2.9 million) were still unemployed half a year later (1.6 million).

Overall, out of around 16 million unemployed in the second quarter of 2008, almost half (42% or 6.7 million) were still unemployed a year later (and hence in the group of long-term unemployed), increasing long-term unemployment by nearly 10% from the level of 6.2 million a year earlier. Subsequently long-term unemployment worsened even further; out of around 20.8 million unemployed in the second quarter of 2009, almost half (43% or 9 million) were still unemployed a year later, thus

increasing long-term unemployment by a third on the level of 6.7 million a year earlier. As the medium-term unemployed seem to face greater difficulties in finding a job compared to the situation a year ago, the risk of long-term unemployment and detachment from the labour markets will only intensify, potentially aggravating the challenges related to social exclusion and poverty.

These trends in the duration of unemployment are feeding through to the overall long-term unemployment rate for the EU, which decreased up until the third quarter of 2008 (when it affected around 2.5% of the labour force), but which has subsequently been on the increase again, reaching 3.7% in the first and second quarters of 2010 (Chart 29). That rise is nevertheless fairly limited and may not yet reflect the full extent of the weakening of the EU labour markets since the crisis began and the subsequent strong increase in unemployment. Even if the long-term unemployment rate remained broadly stable in the second quarter of 2010, the share of the long-term unemployed in total unemployment has continued to rise. Therefore, long-term unemployment may remain an increasing challenge in the quarters ahead, as many of those who have recently lost their jobs may eventually join the long-term unemployed.

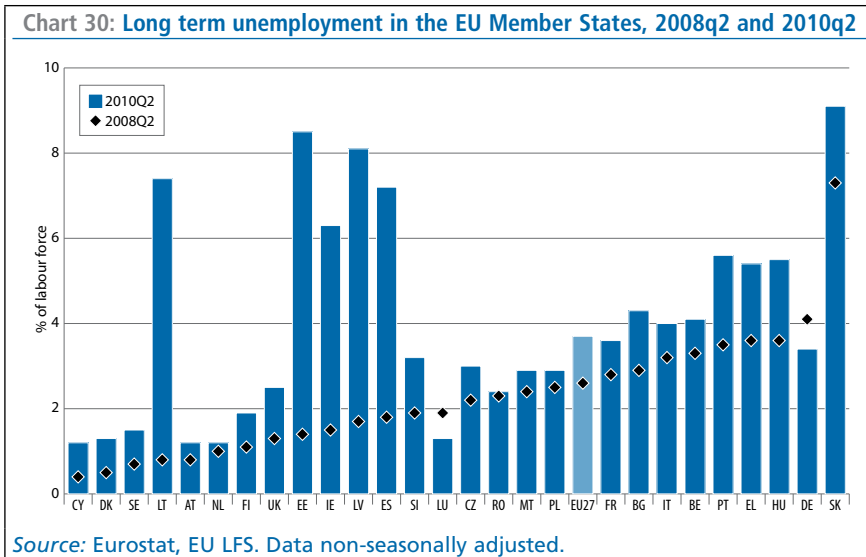


Of particular concern, more than 50% of the unemployed in Belgium, Portugal and Slovakia have been without a job for a year or more.

2.2.4. Other labour market responses to the economic downturn

Labour markets in the EU also adjusted to the economic recession through other mechanisms than simply reducing employment levels. Indeed, many Member States took decisive steps to avert the misery of mass unemployment through actions such as extending or introducing short-time work arrangements, or reinforcing measures to support and facilitate transitions to new jobs. Many also increased social protection by extending the coverage or generosity of unemployment benefits or by reinforcing other social benefits⁽¹²⁾.

At the same time, many companies made workers redundant only as a last resort and a range of alternative responses were implemented. A common feature was negotiated reductions of working time ('short-time working') balanced by increased provision of training. Other responses included reducing labour costs (through pay freezes or pay cuts, or reduced social contributions by employers⁽¹³⁾), paid/unpaid career breaks and, at the aggregate level, an adjustment in the level and composition of employment in terms of temporary, part-time and self-employment⁽¹⁴⁾. In many cases such measures are continuing, although often scaled down from the levels observed during the height of the crisis in early 2009.



Compared with mid-2008, the long-term unemployment rate has increased in almost all Member States (Chart 30), most notably in the Baltic States (up by around 6.5-7 percentage points in all), and in Ireland and Spain (with rates in both up by around 5 percentage points). As a result, long-term unemployment rates now vary even more markedly across Member States - ranging from 1.2% in Austria, Cyprus and the Netherlands to more than 8% in Estonia, Latvia and Slovakia.

As a share of total unemployment, the proportion of long-term unemployed started to rise in the second quarter of 2009, reflecting moderation of inflows into

unemployment (coupled with the lack of opportunities for moving from unemployment into jobs) and, by mid-2010, 40% of unemployed people in the EU had been jobless for more than a year, up from 32% a year earlier.

Over the last year, the long-term unemployment share in total unemployment has increased most significantly in countries where unemployment started to rise the earliest (and fastest), i.e. in the Baltic States, Ireland and Spain, while it declined or increased only slightly in some countries where the influx into unemployment started late in 2008, namely in Bulgaria, Germany, Malta, Poland but also in Romania.

(12) See section 5 of Chapter 2 for more details on changes in the coverage and generosity of unemployment benefits.

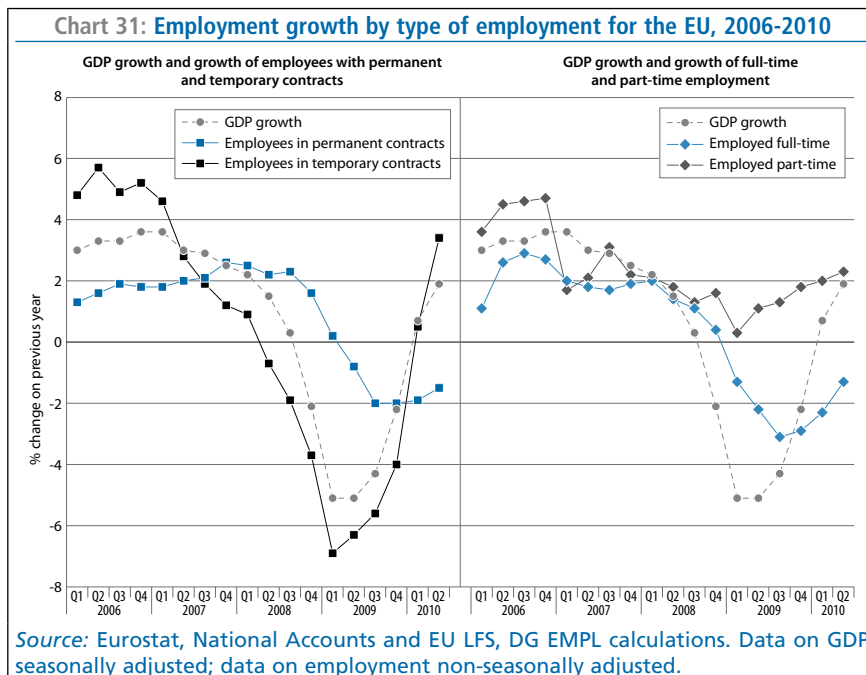
(13) See section 3.3 of Chapter 2 for more details on cuts in non-wage costs.

(14) See section 3.5 of Chapter 2 for more details on measures promoting self-employment and business start-ups.

Adjustment by type of employment (temporary and part-time employment)

Employment adjusted first and foremost to the economic downturn through a sharp contraction in temporary employment, which is the most cyclical component of employment. While in 2008 only 14.0% of employees were in temporary employment, they accounted for almost half (around 44%) of the overall reduction in the number of employees from 2008q2 to 2009q4, the last quarter when temporary employment contracted year-on-year.

In line with the accelerated downturn in overall economic activity over 2008, year-on-year growth in temporary employment became negative in the second quarter of 2008, and turned increasingly so over 2008 and into 2009. By the first quarter of 2009, when the year-on-year fall was greatest, the number of employees in the EU with temporary contracts had fallen by 1.8 million (or 6.9%) compared with the first quarter of 2008, mainly driven by falls in all the larger Member States and most notably by a decrease of over 1 million in Spain. Although the situation subsequently improved somewhat over the rest of 2009, by the last quarter of the year temporary employment still remained around 4% lower than a year earlier. However, temporary employment has seen a very strong recovery over the first two quarters of 2010, returning to positive year-on-year growth rates of 0.5% and 3.4% respectively, with the result that by the second quarter it was down a much reduced 3.1% on levels at the start of the labour market downturn two years earlier and accounted for a more limited 19% of the reduction in employees over that period. Year-on-year growth in permanent employment, which had remained at a relatively stable rate of around 2% over 2008 and has been affected less by the crisis, also came to a halt in the first quarter



of 2009 and subsequently turned negative from the second quarter onwards, although contraction has been at a much slower pace (Chart 31). Nevertheless, the fall in permanent employment has continued into 2010, with no signs yet of the strong rebound observed in temporary employment.

For a while, the strong downturn in temporary employment led to a marked reduction in the share of employees in the EU with fixed-term contracts. This share, which has broadly decreased since late 2007, fell to 13.1% in the first quarter of 2009 (down by 1.7 percentage points from the peak of 14.8% in 2007q3) before recovering strongly to 14.0% by mid-2010.

Growth of part-time and full-time employment also adjusted in response to the economic conditions, with a relative shift away from full-time towards part-time work. While the previous strong year-on-year growth of part-time employment in the EU over 2006 and much of 2007 weakened from the second quarter of 2008 onwards, it nevertheless remained positive throughout the crisis and even picked up again over the course of 2009 and into 2010, while growth in full-

time employment turned negative from the first quarter of 2009 on and has remained so since. Year-on-year, the rate of growth in full-time employment had dropped to around -3% over the latter half of 2009 before recovering somewhat over the first half of 2010 to -1.3%, while for part-time employment year-on-year growth had improved to post rates of around 2% from late 2009 onwards.

This suggests that the decline in full-time employment has been partially offset by a continued increase in part-time employment, demonstrating the potential role of part-time work as a 'shock absorber' during the economic downturn. Indeed, one of the steps an employer can take in order to avoid having to lay off (more) people in a downturn is to introduce part-time working or increase its use i.e. transform a full-time contract into a part-time one. Similarly, employers may well demonstrate a stronger preference for part-time contracts when looking to hire new staff, especially in the initial stages of the economic recovery. Thus, some of the adjustment in total hours worked during the crisis can be explained by a shift from full- to part-time work.

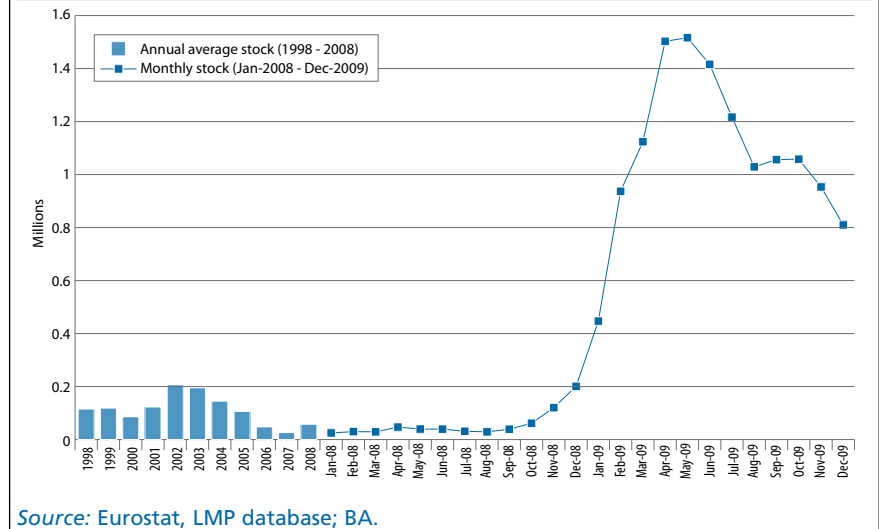
Working hours

Reductions in working hours in order to adjust to the fall in demand were very much in evidence during the recession. This reflects the fact that, firstly, labour hoarding has been a widespread response of many European firms which have preferred to keep their experienced workers, and secondly, that government sponsored short-time working schemes⁽¹⁵⁾ have been widely used. In some European countries, such schemes have been reinforced or introduced for the first time. The practice of promoting reductions in working time rather than laying off workers has helped protect European jobs from the initial impact of the recession and to avoid the sharp rises in unemployment seen in the USA.

Germany, which has compensation programmes in place through which employers can apply for temporary state assistance to top up the wages of workers working reduced hours, provides a clear illustration of the important role that public authorities have played in facilitating firms' recourse to short-time working during the crisis. In the last quarter of 2008 the numbers of short-time workers in Germany rose dramatically and this continued into the first part of 2009, with the result that by May 2009 the number of recipients of short-time working allowances had risen to around 1.5 million, much higher than in previous years (Chart 32). Although the figures have subsequently fallen, there were still over 800 thousand recipients of allowances in

(15) In a number of EU Member States, measures are in place to provide support for a reduction in hours of work at times of downturns in economic activity in order to moderate the effects on employment. These measures include partial unemployment benefits, paid to those who work a reduced number of hours or days a week, and temporary support for short-time working, paid to employers to enable them to maintain jobs at times of reduced demand for their products. The latter has been particularly important in Germany during such periods. For more details on short-time working arrangements see section 3.1 of Chapter 2.

Chart 32: Stock of recipients of short-time working allowance caused by economic conjuncture in Germany



Source: Eurostat, LMP database; BA.

December 2009, which is around half the peak in May 2009.

In several other countries partial unemployment benefits have played a similarly important role. These act in a similar way to short-time working allowances, providing income support to those whose hours of work are reduced because of a downturn in the economy and enabling them to remain in employment rather than become fully unemployed. This scheme has been particularly important in Belgium, where it has played a major role in moderating the rise in 'full' unemployment (Chart 33).

Just how important such measures have been in certain Member States at the height of the crisis can be seen in Charts 34(a) and 34(b), which show the share of the overall reduction in total hours worked (i.e. total labour input to the economy) between 2008 and 2009 which can be attributed to the reduction in hours worked per person in employment (as opposed to reductions in the number of employed i.e. head-count employment)⁽¹⁶⁾. Adjustment

(16) Working hour reduction do not, however, only reflect the impact of government financed short-time working schemes but also mechanisms and institutions already in place for firms to reduce employees hours without government intervention (for example as already existed in Germany)

through reductions in hours per worker between these two years was the main reaction in countries such as Austria, Belgium, the Czech Republic, Italy, Slovakia, and especially Germany (where it accounted for almost 100% of the reduction in total hours worked), but was also substantial in most others. Even in countries where no formal short-time working schemes exist, such as Sweden, a significant amount of the adjustment took place through a reduction in the hours worked per person, reflecting a much greater use of internal flexibility by employers in this crisis compared to previous recessions. Even so, in countries such as Denmark, Ireland, Latvia, Lithuania, the Netherlands and the UK the fall in the total number of hours worked was due much more to reductions in employment. In Bulgaria, Portugal and Spain all adjustment was via employment, as average hours per worked increased slightly. For the EU as a whole, the reduction in hours per worker accounted for around 40% of the reduction in total hours worked, compared to around 25% for the US.

...in the industry and construction sectors

As highlighted previously, much of the decline in economic activity during the crisis occurred in the industry and construction sectors, which have seen especially sharp peak-to-trough contractions in output of the order of 15-20%. However, although these sectors have seen relatively strong associated reductions in employment, it is also the case that there have been strong adjustments through reduced working hours, which has acted to cushion workers from even higher job losses.

In line with the relatively strong fall in the production indices after the first quarter of 2008, there was an almost immediate change in the indices of hours worked and of persons employed (Chart 35). In industry, total working hours declined at a much faster rate than employment from the third quarter of 2008 through to the first quarter of 2009, implying a substantial adjustment in the sector in the initial phase of the crisis through reducing working hours as opposed to laying people off. As a result, over the four quarters following 2008q1 the total decline in the index of hours worked was stronger than the decline in the index of persons employed (down 7.4% and 5.0% respectively), supporting the view that employers first reduced hours before making redundancies. However, from the second quarter of 2009 onwards the situation reversed, with further, although generally more limited, employment declines exceeding the falls in total hours worked. This might suggest that retained workers are now having their hours extended relative to the previously reduced levels, at the same time as labour shedding continues, and indeed by the second quarter of 2010 total hours worked had started to increase again despite continued employment losses. By the second quarter of 2010, the falls in both indices compared to the peaks in early 2008 were broadly similar, with the index of hours worked down 10.3% and the index of persons employed down a slightly stronger 11.5%.

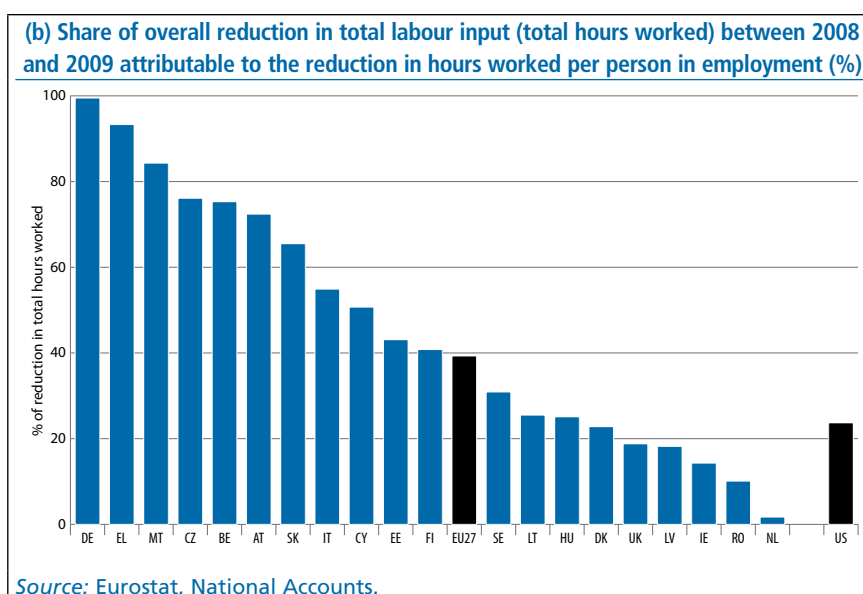
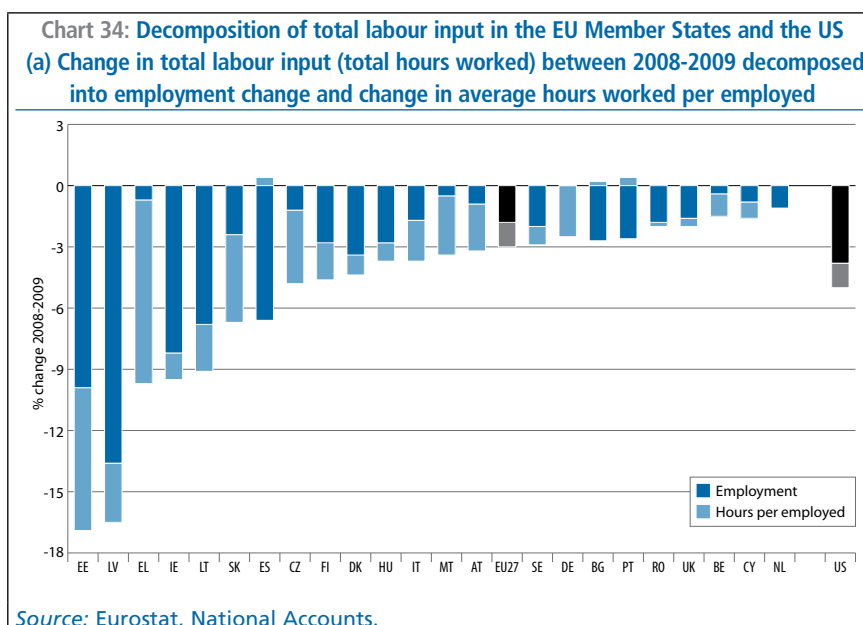
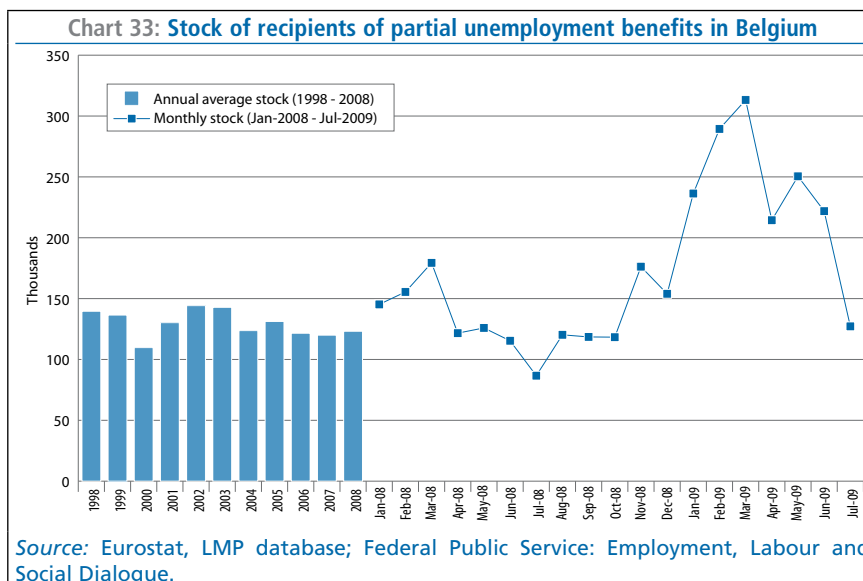
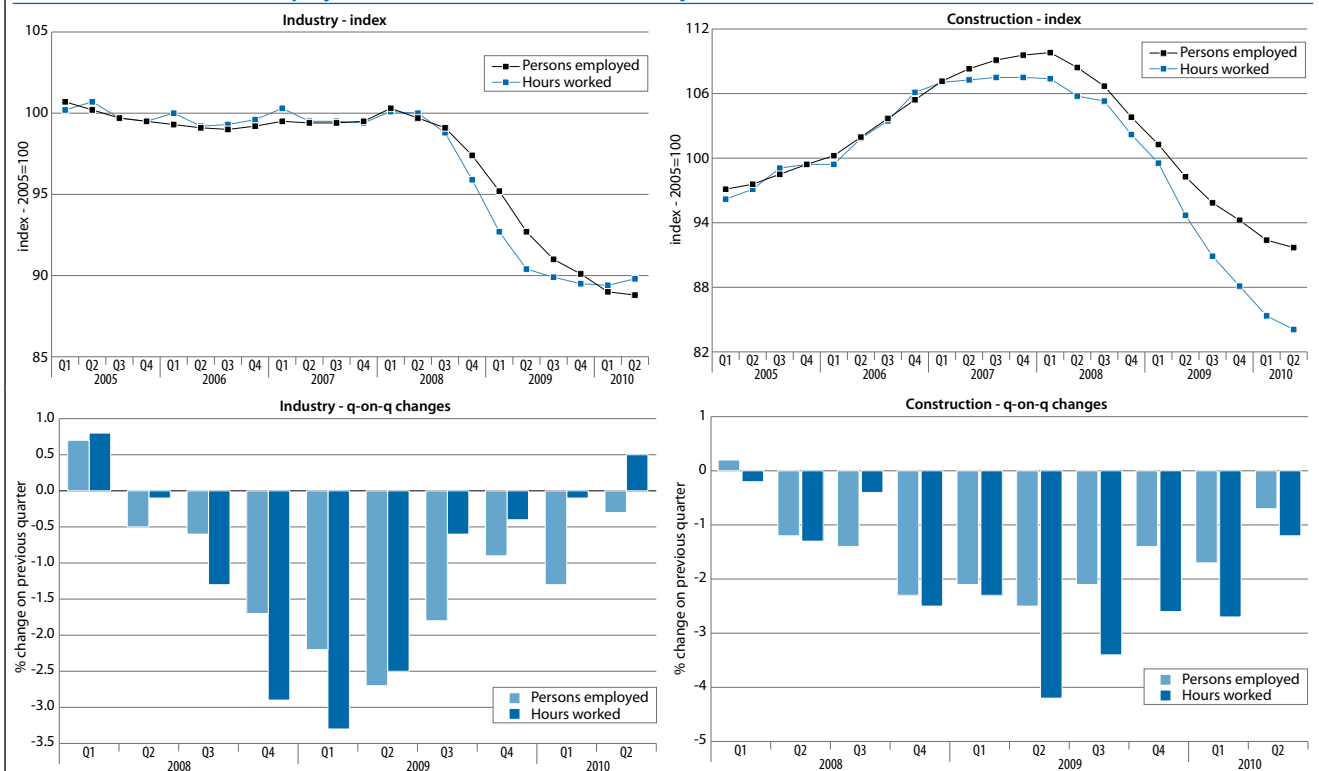


Chart 35: Employment and hours worked in industry and construction sectors in the EU, 2005-2010



Source: Eurostat, short term business statistics. Data seasonally adjusted.

Note: Industry: NACE rev2 B-D (Mining and quarrying & manufacturing & electricity, gas, steam and air conditioning supply), Construction: NACE rev2 F.

In construction the trend has been somewhat different. In general (except for 2008q3) the decline in the index of hours worked over the four quarters following 2008q1 broadly matched the decline in the employment index (by 2009q1 they were down 6.3% and 6.7% respectively), indicating that the immediate response in the highly labour-intensive (and relatively low productivity) construction sector was rather to lay people off. However, from the second quarter of 2009 onwards, total hours worked fell much more substantially than employment, suggesting that, while job losses have continued, more emphasis has been put on reducing average working hours to cope with the reduced level of demand. As a result, by the second quarter of 2010 the index of hours worked was down almost 19% while the index of persons employed was down a more limited 14.3% compared to their respective highs in early 2008.

Focussing on the industry sector in more detail, in almost all industrial activities (at the NACE Division level),

both of the labour input indices declined over the first year of the labour market downturn in the EU to the second quarter of 2009 (Chart 36). There were few industrial activities that appeared relatively robust in the face of the downturn.

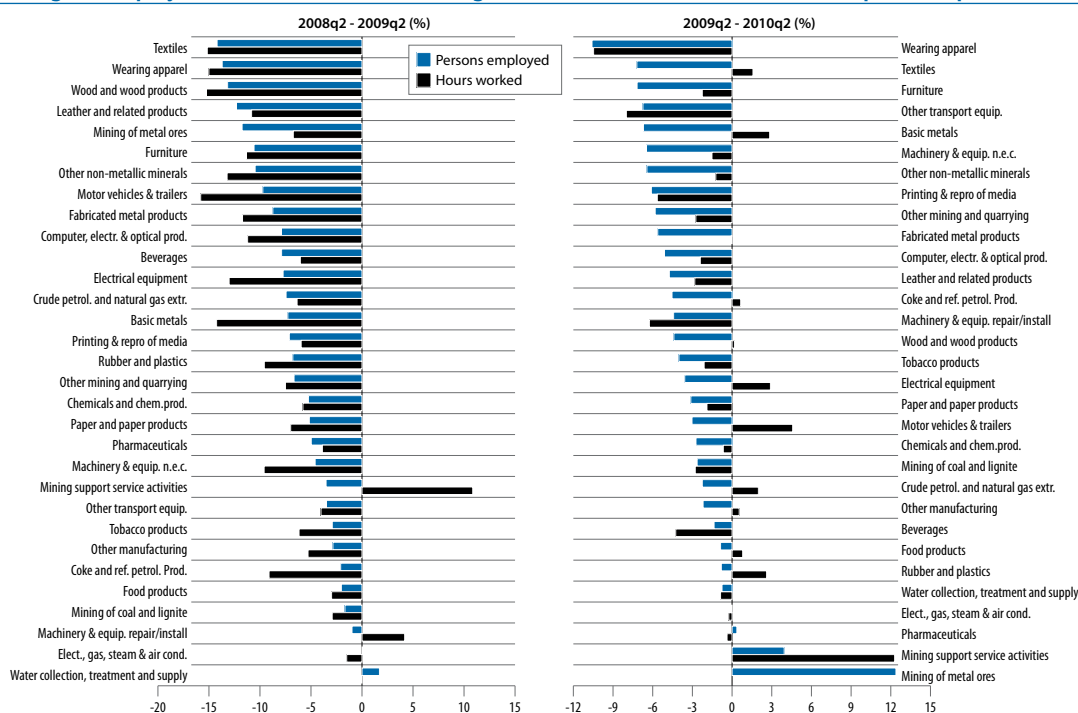
The greatest falls (between about 12% and 14%) in the index of persons employed during this period were in the manufacture of textiles, wearing apparel and leather products. These activities have been in decline for a number of years, both during the build-up to the abolition of the Agreement on Textiles and Clothing at the end of 2004 and the subsequent abolition of textile and clothing import quotas. The economic downturn since early 2008 appears to have accelerated the ongoing re-structuring of businesses in these activities.

In the vast majority of industrial activities, the rate of decline in total hours worked during the year to the end of the second quarter of 2009 was stronger than the decline in per-

sons employed. This was particularly the case in the manufacture of motor vehicles and trailers (where the index of hours worked declined by around 16%, a considerably stronger rate than the 9.7% reduction in persons employed), together with related upstream activities (e.g. manufacture of basic metals, electrical equipment and fabricated metal products).

In a number of respects the automotive sector was a showcase in terms of its adjustment to the crisis through working time flexibility. Many of the large automotive companies, especially in western European Member States, extended scheduled seasonal closures over Christmas 2008/New Year 2009. Even after the resumption of production in 2009, many firms announced temporary plant closures during the year. The reduction or elimination of overtime and nightshifts was also a common response, as was compulsory leave-taking where workers were obliged to take annual leave entitlements in periods specified by their employer (often in conjunction

Chart 36: Change in employment and hours worked among industrial sub-sectors in the EU, 2008q2 - 2009q2 and 2009q2 - 2010q2



Source: Eurostat, short-term business statistics. Data non-seasonally adjusted, but data on hours worked adjusted by working days.

with temporary plant closures). Furthermore, either in combination with or in addition to many of the above measures, the use of obligatory periods of unpaid leave and shortened working weeks was widespread.

Over the second year of labour market retrenchment (i.e. from 2009q2 to 2010q2), however, there was rather less evidence of working hours reductions continuing to be used to soften the declines in employment. Moreover, firms are now increasingly focused on improving their competitiveness, and in certain industry sub-sectors have started to increase the working hours of the employees they have retained. Across most industry sub-sectors, the rate of decline in total hours worked during the year to the end of the second quarter of 2010 was weaker than the decline in persons employed, and in some cases total hours worked had even increased. This was even the case in the automotive sector, and perhaps suggests that the limits to softening the impact of the crisis on employment through working hours adjustment may have been reached, and that any further deterioration in the labour market is now being enacted almost entirely through labour shedding.

Impact on workers' average working hours

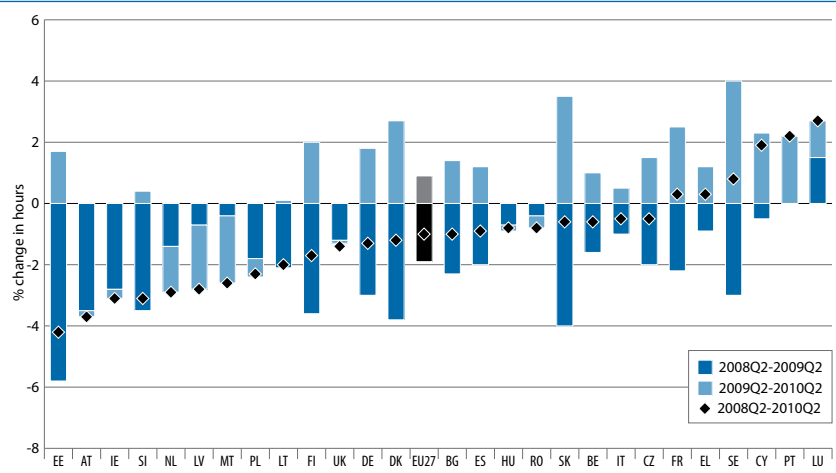
The sharp drop in economic activity during the crisis, combined with a much smaller fall in the number of persons employed, was ultimately reflected in the figures for the number of hours worked per person and the output generated per person employed (labour productivity). In addition to an increased share of part-time workers during the crisis, there was a significant fall in the average number of hours worked each week by people in employment (in their main job). The result of favouring reductions in working time rather than reductions in the level of employment is visible in data from the EU labour force survey on actual hours worked by those workers remaining in employment.

Over the first year of the crisis (2008q2 to 2009q2), much of the labour market adjustment took place through reductions in working hours. By the second quarter of 2009, workers in the EU worked on average 36.5 hours per week in their main job, 0.7 hours (or 1.9%) less per week than a year earlier. The decline

mainly resulted from the drop in hours worked by full-time workers (by 0.7 hours to 40.3 hours), while part-time employed worked on average only 0.2 hours less. The following year (2009q2 to 2010q2) saw a slight rise in average working hours, which had increased to 36.9 hours per week by the second quarter of 2010, up by 0.3 hours (or 0.9%) on a year earlier. Nevertheless, average hours were still down by 0.4 hours (or 1%) compared to the level at the start of the crisis two years before.

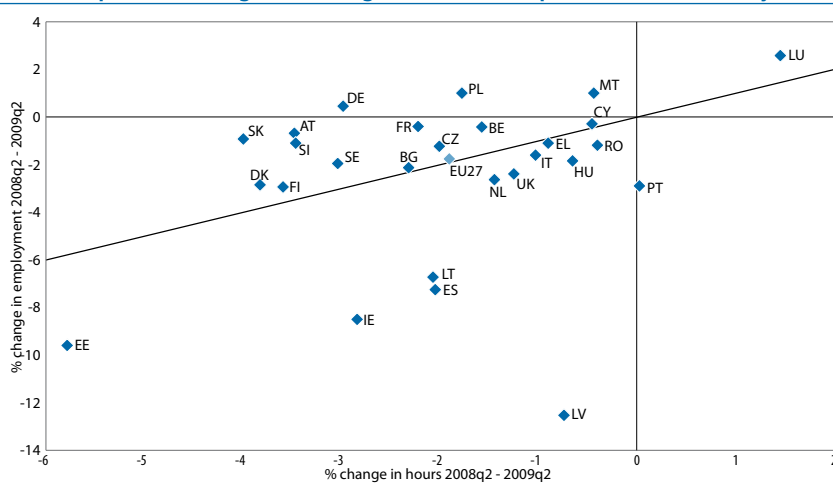
The downward adjustment in average working hours during the first year of the crisis is generally reflected at Member State level (Chart 37). In most Member States workers remaining in employment in the second quarter of 2009 worked on average less compared to a year previously, the only exceptions to this were Portugal (with no change in average hours) and Luxembourg (where average hours rose). The significant reduction in average working hours between 2008q2 and 2009q2 appears to have tempered employment contraction in some Member States, in particular in countries such as Austria, Belgium, the Czech Republic,

Chart 37: Change in average hours worked per week in the main job in EU Member States, 2008q2 - 2010q2



Source: Eurostat, EU LFS. Data non-seasonally adjusted.

Chart 38: Change in employment in EU Member States 2008q2 - 2009q2 compared to changes in average hours worked per week in the main job



Source: Eurostat, EU LFS. Data non-seasonally adjusted.

France, Germany, Slovenia and Slovakia, but did not manage to prevent a drastic decline in employment in others such as Estonia, Ireland, Lithuania and Spain (Chart 38). Over the second year (2009q2 to 2010q2) the picture was more mixed across Member States, nevertheless with most seeing an increase in average hours worked per week, although generally less than the decline of the previous year. Average hours continued to decline significantly only in Latvia, Malta and the Netherlands. Despite the broad upward adjustment in the second year, for most Member States average hours worked in the second quarter of 2010 still remained down on the level two years before at

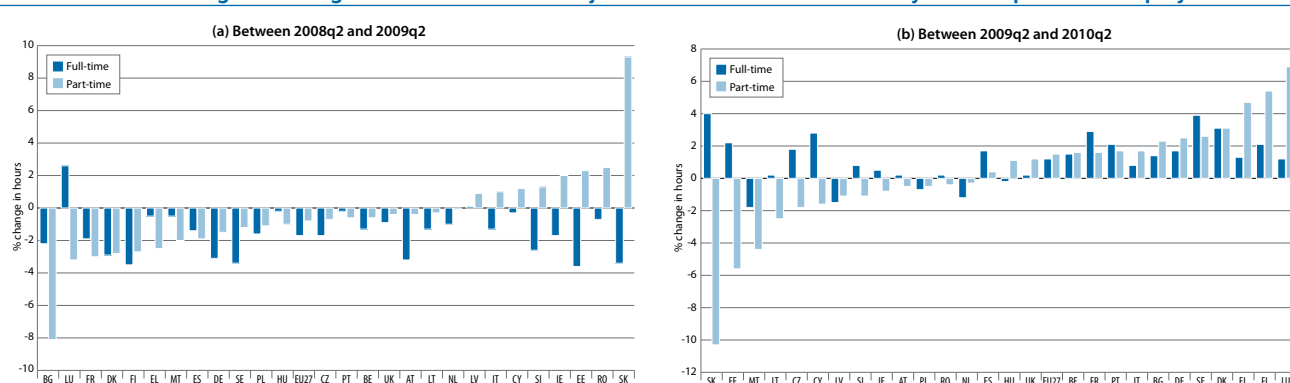
the start of the downturn. However, in a few (Cyprus, France, Greece, Luxembourg, Portugal and Sweden) average hours were higher than in early 2008 generally thanks to the recovery over the second year.

In terms of working hour developments for full-time and part-time employment, most Member States saw fairly substantial declines for both during the first year of the downturn, although in most cases the relative falls for full-time workers were more substantial (Chart 39(a)). In certain Member States, such as Estonia, Ireland, Italy, Slovenia and Slovakia, quite marked relative decreases in average hours worked by full-time

workers were accompanied by noticeable increases in average hours worked by part-time workers. Part of this may be due to full time workers having their hours reduced and them subsequently being reclassified as part-time workers. Over the second year of the crisis, most Member States saw quite strong relative increases in hours worked by full-time workers, the main exceptions being Latvia, Malta and the Netherlands where significant reductions were recorded (Chart 39(b)). In general, however, any downward adjustment in the second year was mainly through reduced hours for part-time workers, this being particularly the case for most of the new Member States. (Again for some this may reflect a reclassification between part-time and full-time workers.) For most of the old Member States, average weekly working hours for both full-time and part-time workers were significantly higher in 2010q2 compared to 2009q2.

Focusing on developments across sectors, average weekly working hours shortened considerably over the initial year of the crisis across almost all sectors (Chart 40). Nevertheless, a noticeably large reduction in average weekly working time in the *manufacturing* sector (down 3.2% between 2008q2 and 2009q2) and in the *construction* sector (down 1.9%) did not prevent severe contractions in employment in these sectors of around 7% year-on-year. Similarly, despite quite large reductions in weekly working hours in *transportation and storage* and the *wholesale and retail trade and repair of motor vehicles* sectors (of 2.1% and 1.6% respectively) there was also substantial employment contraction in these sectors of close to 3%. In contrast, in several of the service sectors (most notably in *Human health and social work, Education and Professional, scientific and technical activities* sectors, and to a lesser extent in the *Accommodation and food services* and in *Administrative and support service activities* sectors) noticeable declines in average weekly working hours were accompanied by an expansion in employment.

Chart 39: Change in average hours worked in main job for the EU Member States by full and part time employment



Source: Eurostat, EU LFS. Data non-seasonally adjusted.

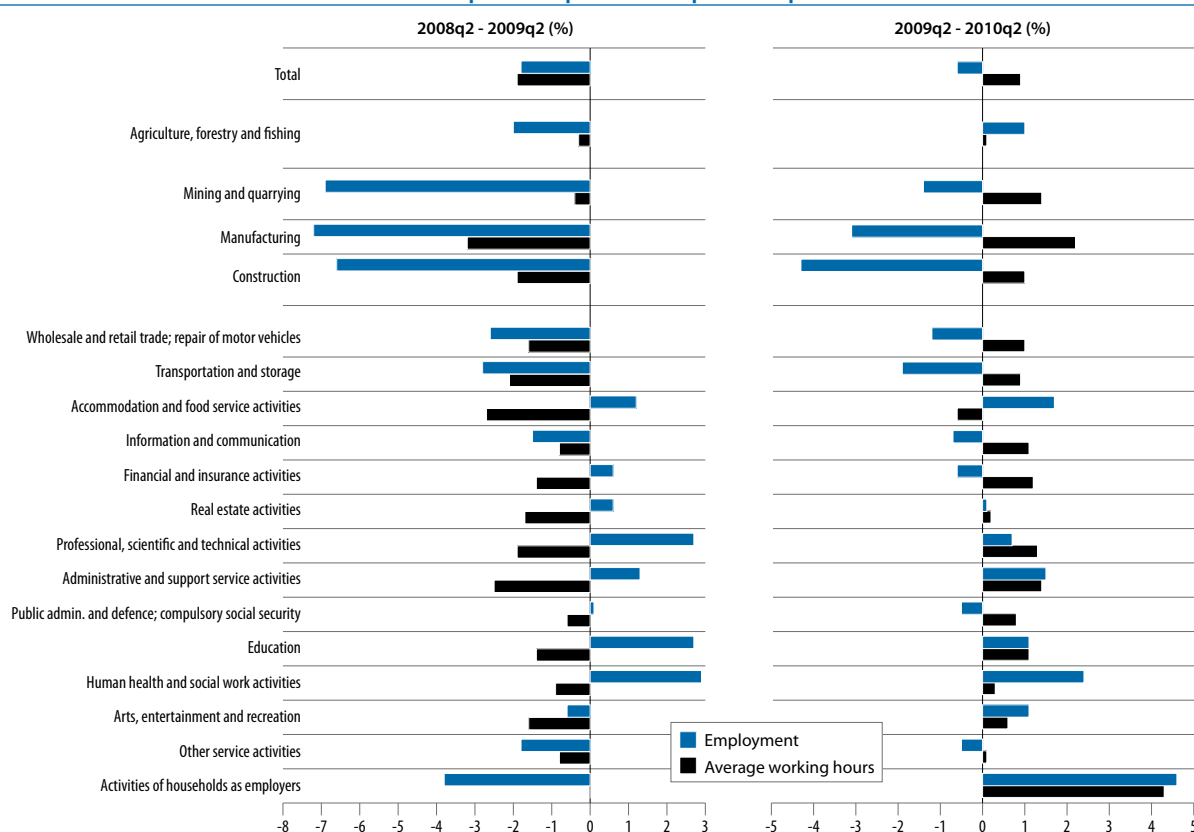
In the second year since the beginning of the crisis the situation reversed, with most sectors recording rises in average working hours in 2010q2 compared to 2009q2. The strongest increases were in the *manufacturing* sector (up 2.2%) and in *activities of households as employers* (up 4.3%). In some services sectors increased working hours were accompanied by rises in employment, most notably in *human health and social work, education, administra-*

tive and support service activities and activities of households as employers. However, in many sectors, especially those that had seen large employment declines in the previous year (*manufacturing, construction, mining and quarrying, transportation and storage, and the wholesale and retail trade and repair of motor vehicles* sectors), rises in average working hours were accompanied by further strong reductions in employment.

Labour costs and wages

On a general level, there has been considerable wage moderation in the face of the economic downturn and the associated heightened risk of unemployment. The economic crisis has put pressure on finances and expenditures of both public employers and companies, resulting in 2008 and 2009 being years of particular pressure on workers' wages.

Chart 40: Changes in workers' average hours worked per week and in employment across sectors in the EU, 2008q2 - 2009q2 and 2009q2 - 2010q2



Source: Eurostat, EU LFS. Data non-seasonally adjusted.

In the public sector this pressure has been highlighted through public wage freezes or cuts; in the private sector, through sector and company level negotiations which have often had a strong impact on wages.

Figures for year-on-year growth in compensation per employee and negotiated wages⁽¹⁷⁾ in the euro area show that the impact of the crisis on wages started being reflected in late 2008 and became more pronounced in the course of 2009 (Chart 41). Following the onset of the recession, both measures initially continued to rise, reflecting contractual wage agreements made in 2007-08 – a time of increasing labour market tightness and relatively high inflation rates. This also reflects that in some countries (such as Germany) agreements at that time were made after a long period of wage moderation, and a period of catching up then followed. By 2009 these trends had reversed markedly, as the environment of weak activity, rising unemployment and low inflation led to lower outcomes in wage negotiations

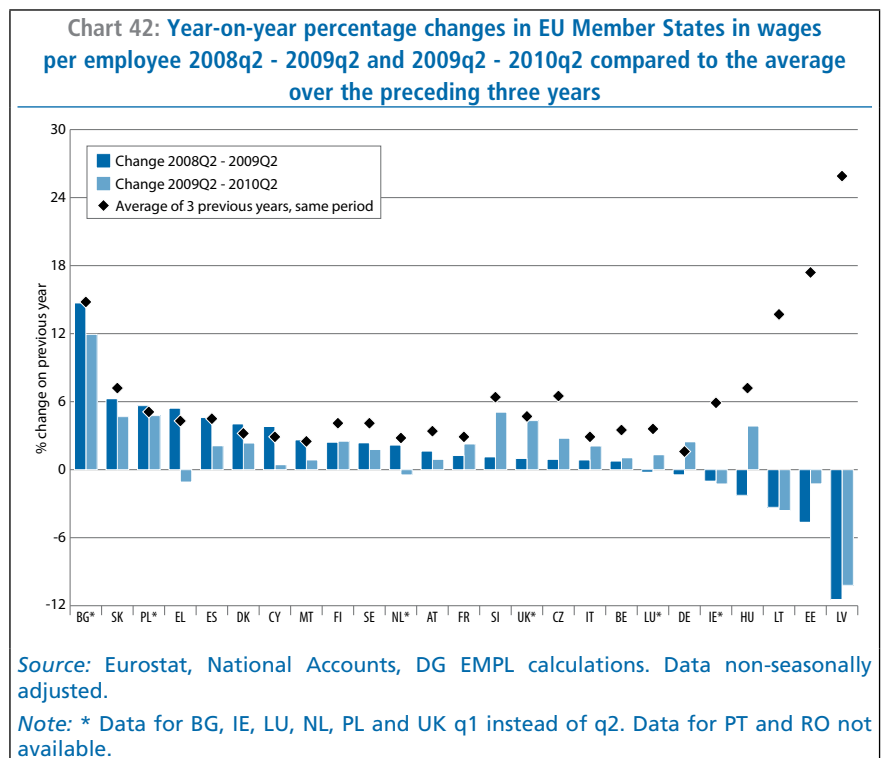
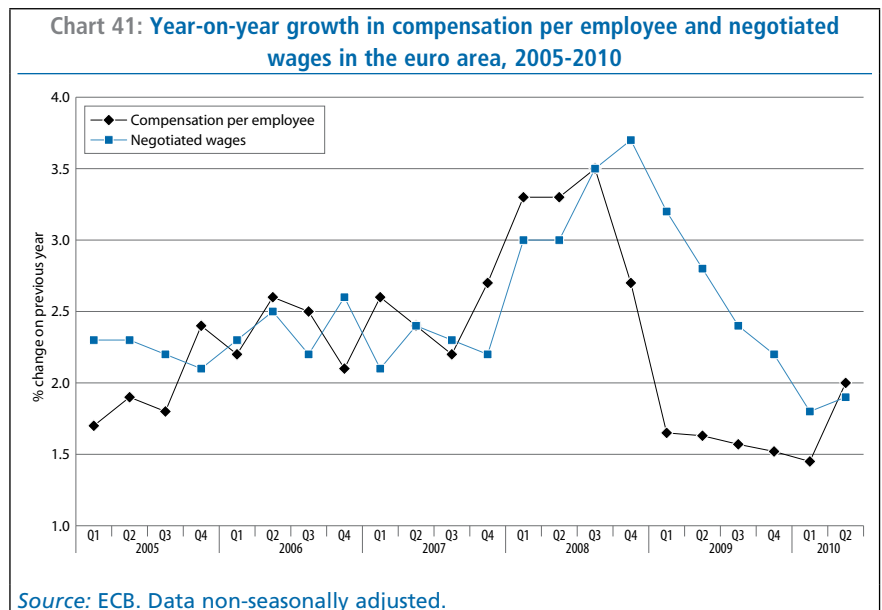
The annual growth rate of compensation per employee started declining in the last quarter of 2008, having peaked at 3.5% in the previous quarter. It fell sharply over that last quarter and the first quarter of 2009 down to 1.7%, and then declined further over the following year, although at a much more moderate pace. It had edged further down to around 1.5% by the first quarter of 2010, before recovering slightly in the second quarter. The strong deceleration in compensation per employee over late 2008 and 2009 reflects both lower wage growth per hour and fewer hours worked.

(17) Compensation per employee is the total remuneration, in cash or in kind, that is payable by employers to employees, i.e. gross wages and salaries, as well as bonuses, overtime payments and employers' social security contributions, divided by the total number of employees. The index of negotiated wages measures the direct outcome of collective bargaining in terms of basic pay (i.e. excluding bonuses) at the euro area level. It refers to the implied average change in monthly wages and salaries.

The annual growth rate of negotiated wages in the euro area adjusted somewhat slower to the crisis, when compared to the annual growth rate of compensation per employee, reflecting that, as negotiated wages capture agreed wage increases through collective agreements, this indicator tends to react to economic changes with a lag. Growth in negotiated wages, which peaked at 3.7% in the last quarter of 2008, fell continuously over 2009

and into the first quarter of 2010, by which time it had declined to 1.8%. The decline in the annual rate of growth of negotiated wages reflected worker's reduced bargaining power and adaptation to new market conditions as a consequence of the decline in economic activity and the increase in unemployment.

Focusing on developments at Member State level since the economic downturn in the EU began in spring



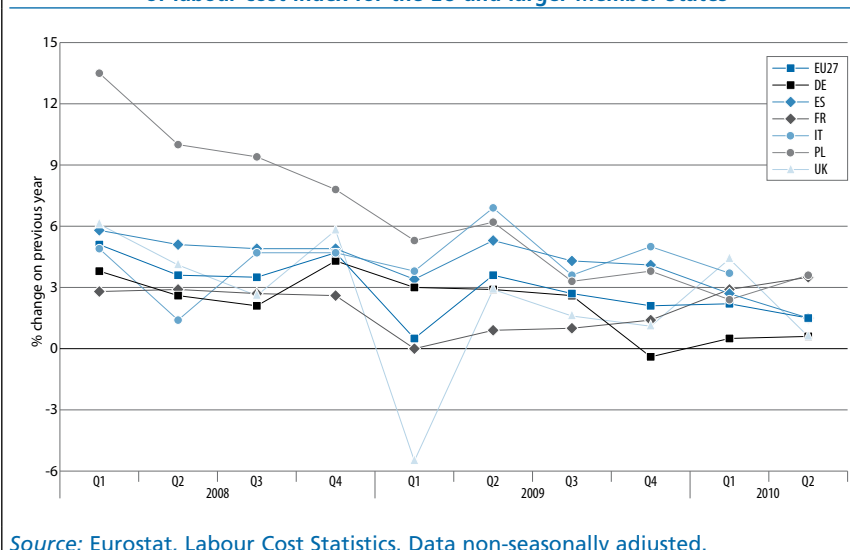
2008, year-on-year growth in wages/salaries per employee⁽¹⁸⁾ to the second quarter was much weaker in most Member States in each of the last two years when compared to the average of the previous three years for the same period (Chart 42). Furthermore, wages per employee have declined in several countries over both yearly periods, notably in Ireland and the three Baltic States.

That there have also been declines in actual wages in some Member States is confirmed by official national sources. For example, according to the Latvian Statistical Office, wages in Latvia, which has been the hardest hit of all Member States by the economic crisis, had shrunk by 12% by the fourth quarter of 2009 compared to the same period in 2008. Though both public and private sectors have witnessed wage reductions, the biggest pay cuts were among government employees, who have seen their wages slashed as part of the government's austerity plan. According to the Latvian Statistical Office, monthly average gross wages and salaries in the public sector had fallen by 23.7% compared to a year earlier, which compares with a more limited fall of 5% in the private sector.

The general moderation in growth in wages per employee in part reflects the more widespread resort to concession bargaining in response to the slump in demand during the crisis, with employers seeking to link employment security (e.g. the withdrawal of compulsory redundancy plans) to pay freezes or pay cuts. High-profile cases of this type of approach were observed in the airline industry.

(18) This is a macro-economic aggregate and negative values cannot simply be read as indicating that there have been wage cuts. The composition of the employee population may change and result in changes in wages per employee without any wage rate having changed, i.e. it also reflects the underlying changes in the distribution of employees across sectors/occupations etc.

Chart 43: Year-on-year growth in the nominal hourly wages and salaries component of labour cost index for the EU and larger Member States



In terms of developments in hourly labour costs (i.e. the hourly labour costs rate), after a steady acceleration in the second half of 2008, the year-on-year growth in the EU business economy dropped sharply to 1.0% in the first quarter of 2009, before recovering to 3.6% in the second quarter. It then fell progressively in each quarter over the following year and by the second quarter of 2010 was down to 1.6%. The developments in total hourly labour costs closely reflect similar underlying developments in the wage and salary component, rises in which decreased from a year-on-year growth rate of 4.7% in the last quarter of 2008 to 1.5% by the second quarter of 2010 and which also fell sharply (to 0.5%) in the first quarter of 2009 (Chart 43). Comparing year-on-year growth in the hourly wages and salaries component for the fourth quarter of 2009 (2.1%) with that for the same quarter in the preceding years reveals much lower wage growth over 2009 than over both 2007 (4.0%) and 2008 (4.7%), again indicating that there has been considerable wage moderation during the crisis.

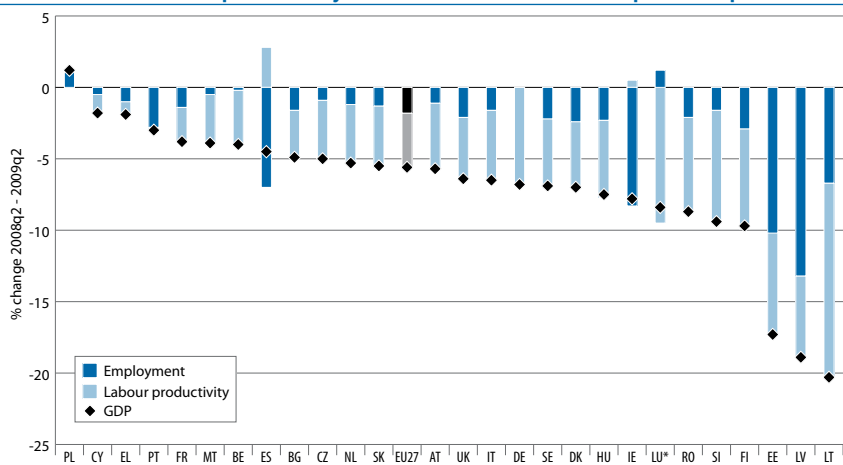
Among the larger Member States, year-on-year growth in the hourly wage rate (and consequently in

hourly labour costs) declined sharply over the second half of 2009 in Germany and Poland, in the former falling to -0.4% before recovery slightly by mid-2010, and in the latter to 3.8% (compared to around 13.5% at the beginning of 2008 and 7.8% in the last quarter of 2008). Similarly, by the end of 2009 year-on-year growth rates were well down in all the other larger Member States except Italy compared to levels in the last quarter of the previous year, especially in the UK which, together with France, experienced a particularly strong fall in the first quarter of 2009. By the second quarter of 2010 year-on-year growth rates had declined further in Spain and the UK, but had recovered strongly in France.

2.2.5. The impact on productivity and real unit labour costs

In the initial stage of the crisis (from 2008q2 to 2009q2) it was clear that, overall, the EU labour market adjusted mainly through reduced labour productivity (i.e. productivity per person employed) rather than through employment contraction, reflecting a relative preference for labour hoarding as firms tried to hold on to workers and reduced their

Chart 44: Percentage changes (yr-on-yr) in GDP, employment and labour productivity in EU Member States, 2008q2 - 2009q2



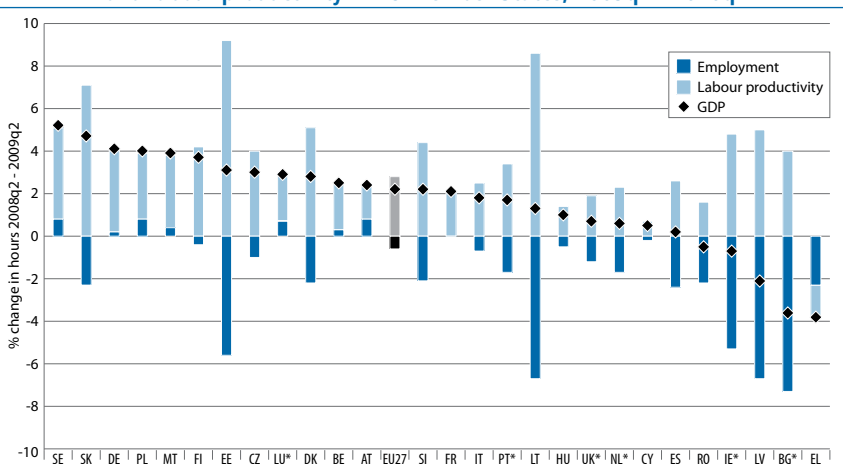
Source: Eurostat, National Accounts. Data non-seasonally adjusted.

Note: * Data for LU 2008q1 - 2009q1.

working hours⁽¹⁹⁾ (Chart 44). Indeed, the more muted fall in employment compared to the US was secured at the expense of productivity – while around a third of the fall in EU GDP was accounted for by a contraction in employment, the decline in labour productivity accounted for just over two-thirds.

In all Member States except Estonia, Ireland, Greece, Latvia, Portugal and Spain, adjustment was mainly through falls in productivity rather than employment. Indeed, in Austria, Belgium, the Czech Republic, Malta, the Netherlands, Romania, Slovenia and Slovakia, almost all of the adjustment (around 80% or more of the decline in GDP) was accounted for by falls in productivity, with hardly any reduction in employment, while in Germany and Luxembourg all the adjustment was via productivity as employment either remained unchanged or still increased year-on-year. However, in contrast, there was a particularly strong (over)reaction of employment to falls in economic activity in Ireland and Spain, leading to increases in labour productivity in those specific Member States.

Chart 45: Percentage changes (yr-on-yr) in GDP, employment and labour productivity in EU Member States, 2009q2 - 2010q2

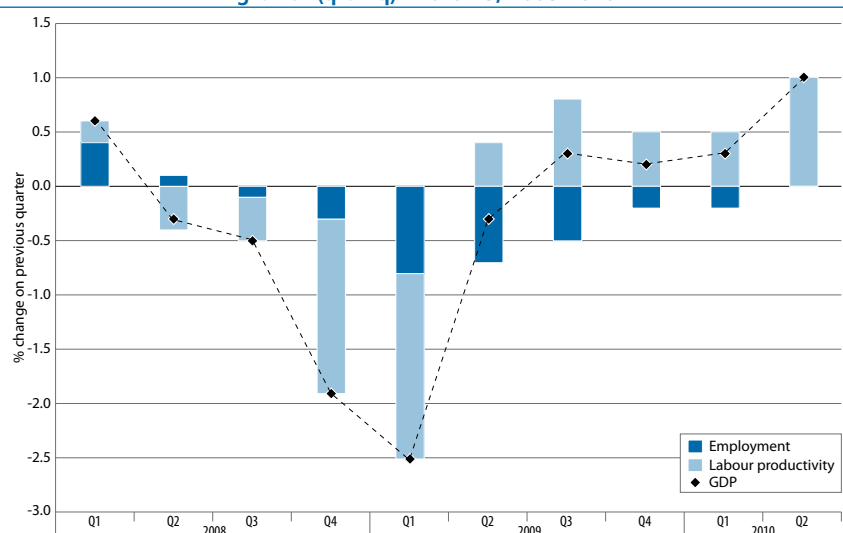


Source: Eurostat, National Accounts. Data non-seasonally adjusted.

Note: * Data for BG, IE, LU, NL, PT and UK 2009q1 - 2010q1.

The situation over the following year (from 2009q2 to 2010q2) modified considerably, with continued employment contraction in the majority of Member States while productivity recovered strongly in all except Greece (Chart 45). Among those Member States where economic output had still declined in 2010q2 compared to 2009q2, employment contraction accounted for all (Bulgaria, Ireland, Latvia and Romania) or the majority (Greece) of the negative adjustment. In those countries which had seen economic output expand, most still saw employment contract over the year,

Chart 46: Developments in GDP, employment and labour productivity growth (q-on-q) in the EU, 2008-2010



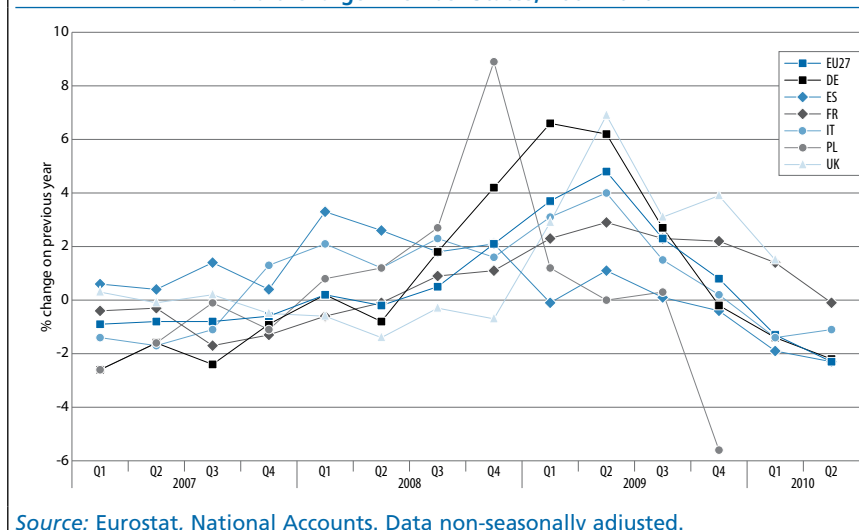
Source: Eurostat, National Accounts. Data seasonally adjusted.

(19) Care needs to be taken in looking at productivity in the short term – while it has declined, keeping people in work at lower productivity will mean when the recovery comes they are in place to react straight away (and firms can avoid firing and hiring costs), so in a longer term perspective the effect on productivity may be more positive overall).

most notably in Estonia and Lithuania, although several had seen some limited employment expansion (Austria, Belgium, Germany, Luxembourg, Malta, Poland and Sweden). The improved overall economic situation compared to that in mid-2009 has therefore been reflected almost entirely in improved labour productivity across Member States rather than in an increase in employment. Indeed, labour productivity in the EU improved to post positive quarter-on-quarter growth rates from the second quarter of 2009 onwards, while employment continued to contract through to early 2010 (Chart 46).

The Commission's spring 2010 Economic Forecast⁽²⁰⁾ explored the apparent trade-off between labour hoarding and productivity by comparing recent developments in the euro area and the US. It reports that poor productivity developments have been the flip-side of relatively more resilient labour markets in Europe compared to the US. During the recession, euro-area productivity (output per employee) fell at an unprecedented annual rate of -2¾% (2008q2-2009q2), i.e. about 4 percentage points below the pre-crisis average (2000q1-2008q2). This is in contrast to developments in the US where productivity growth also fell, but only from some 2% (2000q1-2007q4) to 1.5% (2008q1-2009q2). In terms of output per hour worked, the responses were slightly less pronounced, indicating the use of working hours as a cyclical adjustment variable on top of job cuts. Sizeable differences also characterise the rebound in productivity growth in the early stages of the recovery, with a much stronger pick-up in the US. The aggregate figures, however, mask considerable differences across EU Member States and US regions. Among the reasons given for the exceptionally strong decline in euro-area productivity

Chart 47: Developments in year-on-year growth in real unit labour costs in the EU and the larger Member States, 2007-2010



Source: Eurostat, National Accounts. Data non-seasonally adjusted.

during the crisis are the strength of the recession, the sectoral impact of the shock, 'labour hoarding' decisions by firms, and unprecedented government measures aimed at supporting employment even at the expense of a fall in productivity.

The decline in output combined with labour hoarding in the early stages of the crisis led to a significant increase in year-on-year real unit labour costs (RULC)⁽²¹⁾ in the EU in late 2008 and in the first half of 2009 (Chart 47). This reflected a sharp decline in output (and productivity) while wages and employment adjusted less markedly. Indeed, despite the moderation in compensation per employee, unit labour costs grew strongly in most countries on the back of sharp falls in productivity. The marked rise in average unit labour cost growth at EU level by mid-2009 reflected mainly a sharp rise in Germany, Poland (over 2008 only) and the UK, and also, although to a slightly lesser extent, in France and Italy. However, all have subsequently seen year-on-year growth in real unit labour costs

decline strongly over the second half of 2009 and early 2010, with all but France and the UK seeing growth broadly fall back towards close to the zero level by the end of the year, while in Poland real unit labour costs registered strong negative growth. The downward adjustment broadly continued over the first half of 2010, with year-on-year growth also having turned negative by the second quarter for France, Germany, Italy and Spain. (In Spain growth in real unit labour costs has generally been declining since the beginning of 2008, and unlike the other larger Member States, did not rise substantially over late 2008 and early 2009, reflecting the strong employment declines and associated productivity rises in that country during the crisis). Overall, therefore, the unsustainable rises in real unit labour costs witnessed in the EU during the height of the crisis have subsequently moderated, with year-on-year growth even turning negative recently, reflecting the pick-up in output and labour productivity together with the continued moderation in wages/labour costs.

(20) European Commission Spring 2010 European Economic Forecast, (see http://ec.europa.eu/economy_finance/publications/european_economy/2010/ee2_en.htm).

(21) Real unit labour cost growth compares remuneration and productivity to show how and to what extent the remuneration of employees is related to productivity. It is the relationship between how much each worker is paid and the amount each employed person produces.

3. WHICH POPULATION SUBGROUPS HAVE BEEN MOST AFFECTED? - THE IMPACT OF THE CRISIS ACROSS VARIOUS POPULATION SUBGROUPS

3.1. Employment rate developments

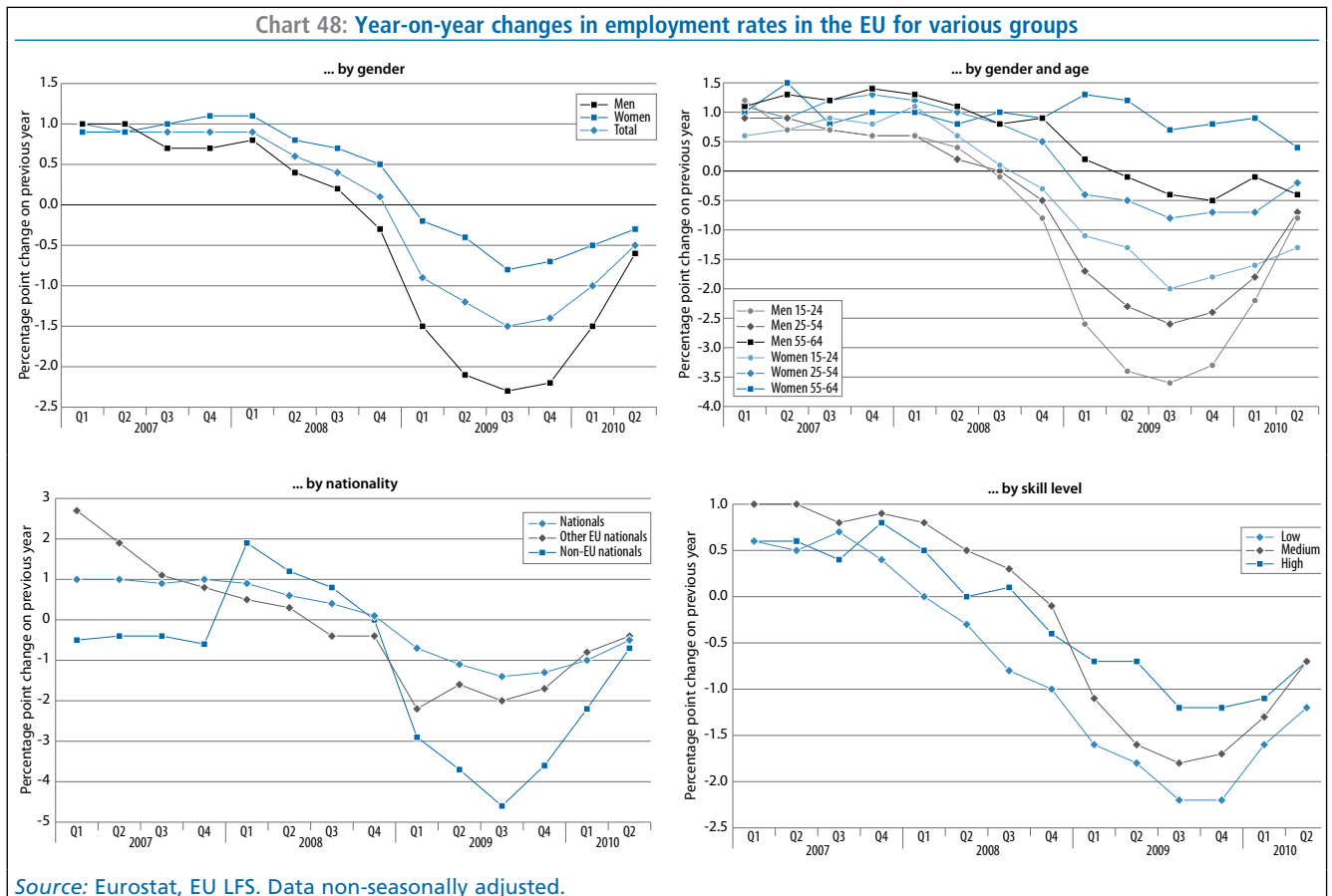
Results from the European labour force survey show that certain population subgroups have been affected much more than others by employment contraction during the recent recession (Chart 48 and Table 5).

Comparing employment rates with those a year earlier indicates that the pace of decline from late 2008 through to mid-2009 was much stronger for men than for women. Year-on-year employment

rate changes for men had already turned negative in the final quarter of 2008 and then accelerated with sharp declines over the first half of 2009, leading to the male employment rate being down by more than 2 percentage points on a year earlier by the middle of the year. Declines only started for women in the first quarter of 2009 and have been much less dramatic, with the year-on-year fall in the rate reaching a maximum of only 0.8 percentage points in the third quarter of 2009. However, a strong easing in the declines for men over the first half of 2010 led to year-on-year falls being broadly similar for both sexes by the second quarter of 2010. Nevertheless, it still remains the case that men have suffered much more from employment contraction than women, as the cumulative reduction in the employment rate compared to 2008q2 amounted to 2.7 percentage points for men and 0.7 percentage points for women by the second quarter of 2010.

The strong fall in male employment rates reflects a strong underlying decline in the rates for prime working age (25-54 years) men, and especially young (15-24 years) men, which amounted to 3.1 percentage points and 4.2 percentage points respectively by 2010q2 compared to 2008q2. Their rates declined rapidly from late 2008 through to the third quarter of 2009, when the year-on-year decline peaked at around 2.5 and 3.5 percentage points respectively, before easing off sharply by mid-2010. Although relatively more limited, young women have also seen substantial declines in their employment rate, with year-on-year falls peaking at around 2 percentage points and remaining fairly strong into the first half of 2010. As a result the total decline in their employment rate compared to 2008q2 amounted to 2.6 percentage points. In contrast, employment rate declines have been relatively subdued for prime age women and older men (55-64 years), for whom

Chart 48: Year-on-year changes in employment rates in the EU for various groups



rates started to fall later and with year-on-year declines amounting to well below a percentage point, while rates for older women have actually continued to rise over the whole period since the crisis began, bucking the trend for all other groups.

In terms of nationality, non-EU nationals have experienced the sharpest falls in employment rates. Declines have also been more significant for nationals of other EU countries (i.e. EU citizens whose

nationality is different from the Member State in which they reside) when compared to the falls for nationals, although their year-on-year rate declines broadly stabilised in 2009 from the second quarter on, while those for non-EU nationals continued to worsen through to the third quarter. However, declines for both have subsequently eased over late 2009 and the first half of 2010. Nevertheless, by the second quarter of 2010, the employment rate for non-EU nationals was down

a cumulative 4.5 percentage points on the rate in the second quarter of 2008, that for other EU-nationals down 2.1 percentage points, and that for nationals down a more limited 1.6 percentage points.

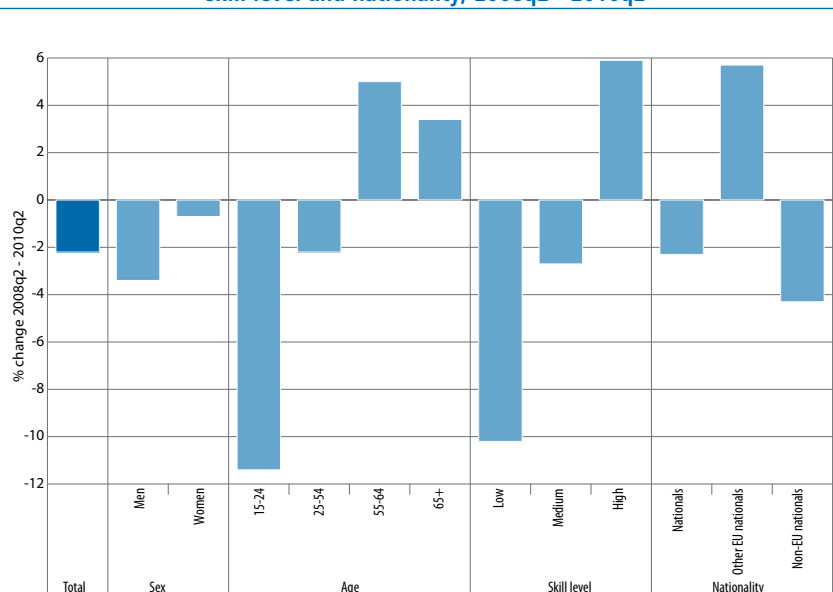
In terms of skills, population groups of all skill levels have seen employment rates decline. Year-on-year rate falls accelerated for all skill groups through to the third quarter of 2009, before easing off subsequently, but with the declines being greatest for the low-skilled and weakest for the high-skilled. Compared to rates in the second quarter of 2008, the largest cumulative fall through to 2010q2 has been for the low-skilled (down 3.0 percentage points), but even the high-skilled have seen rates fall substantially (by some 1.4 percentage points), although the latter reflects the fact that the increase in the number of high skilled has been even faster than the increase in their employment (the underlying population of the high-skilled aged 15-64 increased by 5.1 million (or 7.4%) over the two year period, while employment of the high-skilled in this age group increased by a more limited 3.3 million (or 5.7%)).

Table 5: Employment rate developments between 2008q2 and 2010q2

		ER in 2008q2	ER in 2010q2	Total ER change
Total	Total	66.0	64.3	-1.7
Gender	Men	73.0	70.2	-2.7
	Women	59.1	58.4	-0.7
Gender and age group	Men 15-24	40.3	36.1	-4.2
	Men 25-54	87.2	84.1	-3.1
	Men 55-64	55.1	54.6	-0.4
	Women 15-24	34.5	31.8	-2.6
	Women 25-54	72.4	71.6	-0.8
	Women 55-64	37.0	38.6	1.6
Nationality	Nationals	66.2	64.7	-1.6
	Other EU nationals	69.9	67.8	-2.1
	Non-EU nationals	59.8	55.3	-4.5
Skill level	Low	48.1	45.1	-3.0
	Medium	71.0	68.7	-2.3
	High	84.1	82.8	-1.4

Source: Eurostat, EU LFS. Data non-seasonally adjusted.

Chart 49: Relative change in employment in the EU by sex, age, skill level and nationality, 2008q2 - 2010q2



Source: Eurostat, EU LFS. Data non-seasonally adjusted.

3.2. Changes in employment levels

Focusing on overall changes in employment levels over the total period since the downturn in the EU labour market started in 2008q2, the relative falls in employment likewise vary considerably across different population sub-groups. Men, young people, the low-skilled and non-EU nationals have been relatively most affected by falling employment over this period (Chart 49).

With regard to gender, men have suffered the brunt of the contraction in employment, with their employment having fallen by 3.4% (versus only a 0.7% decline for women) and accounting for around 85% of the total net reduction in

employment to the second quarter of 2010. This different gender impact of the recession on employment strongly reflects differences in the types of jobs that women and men perform. The greater concentration of women in part-time work, lower-paid jobs and smaller firms has had an impact on the relative effects of the downturn.

Similarly, the different sectoral concentration of male and female employment has played a key role. To date the economic downturn has had a much greater impact on male-oriented sectors, such as the construction and manufacturing sectors (which combined account for around two-thirds of total sectoral employment declines, and in which men account for more than two-thirds of overall employment). Conversely, women more often work in sectors shielded from business cycle fluctuations — such as the public sector, health, education and the social sector. Nevertheless, in the future, female employment may give more cause for concern as those are precisely the sectors that will be more affected by upcoming fiscal tightening. Moreover, even though fewer women than men have lost their jobs in this crisis, those who become unemployed may have more difficulty in finding a job, being more vulnerable on the open labour market, in so far as they have less labour-market experience on average, and their careers are more often based on part-time jobs with temporary contracts.

In terms of age, employment performance has generally been better the older the age group. Youth (those aged 15–24) continue to be proportionately the most affected by employment contraction, with a decline in employment of 11.4% over this period, reflecting the high share of temporary employment among young people (in 2008, 40% of employed 15–24 year olds had temporary contracts, whereas among 25–64 year olds the share was only 11%). This compares with

a much more limited contraction of 2.2% for those of prime working age. In contrast, employment of older workers aged 55–64 has held up well, and had even increased 5.0% compared to the second quarter of 2008. Similarly, even employment of those aged over 65 increased significantly (by 3.4%). These positive developments for older age groups is partly thanks to labour-market reforms in past years, which have encouraged older workers to remain economically active, together with governments not repeating the mistakes of past recessions (when early retirement schemes were introduced to reduce unemployment), but it may also indicate that the negative impact of the crisis on the wealth of private households has induced many older employees to postpone retirement.

In terms of skill levels, the crisis has affected low-skilled employment most severely, with the low-skilled experiencing a much stronger reduction in employment than other skill levels. Since 2008q2 their employment has dropped by 10.2% compared with a fall of only 2.7% for the medium-skilled, while for the high-skilled employment actually expanded by close to 6%. These figures show the vulnerability of the low-skilled group and the need for an effective new skills agenda.

Finally, although nationals saw their employment decline by 2.3% (or around 5 million), third-country (i.e. non-EU) nationals experienced a much stronger decline of 4.3% (0.4 million), but in contrast nationals of other EU countries saw their employment level rise by 5.7% (0.3 million). The particularly strong relative decline in non-EU migrants' employment in part reflects the fact that they are over-represented in sectors such as construction, which has been particularly strongly affected by the economic downturn. Furthermore, in terms of occupations, a high share of migrants are employed in elementary occupations (much more so than non-

migrants), and as craft and trades workers – i.e. in the low-skilled occupations which have been most at risk in the downturn.

Indeed, in terms of occupations, the workers hardest hit by the crisis have mainly been those in manual and elementary occupations (Chart 50). Craft and related trades workers and plant and machine operators and assemblers have both seen employment levels decline by around 9.0% over the two years to the second quarter of 2010, reflecting the focus of the impact of the labour market downturn on the manufacturing and construction sectors. Those in elementary occupations and working as clerks have also seen significant losses, with employment down by 3.4% and 2.9% respectively, reflecting the greater impact on the low-skilled. In contrast, however, service-sector-based occupations, other than clerks, have experienced significantly lower fallout from the crisis, with even substantial growth recorded in the skilled *professional* occupations (up 4.0%).

3.3. Unemployment

Developments in employment are reflected in the recent evolution of unemployment for the various population subgroups. While the overall EU unemployment rate has risen by 2.9 percentage points since the low of spring 2008, there are significant underlying variations according to gender, age group, skill level and nationality. Nevertheless, for each group the increase was significantly higher over the first year of the labour market downturn (from the second quarter of 2008 to the second quarter of 2009) than in the second year (from the second quarter of 2009 to the second quarter of 2010) (Chart 51 and Chart 57).

Focusing on gender, as already highlighted, the crisis has had a more dramatic effect on the labour

market situation of men than that of women, and the increase in the overall unemployment rate has been driven predominantly by the rise in the rate for men, in particular in the first year of the labour market downturn (Chart 51a). Compared to when the average unemployment rate in the EU troughed in spring 2008, the rate for men had increased by 3.6 percentage points to 9.8% by February 2010, and for women by 2.3 percentage points to 9.6% by July. Consequently, the gender gap in unemployment rates, still at 1.2 percentage points to the disadvantage of women in the beginning of 2008, had switched to the disadvantage of men by spring 2009. However since autumn 2009, the lagged impact of the crisis has shifted more from men to women, and by July 2010 the male and female rates, both at 9.6%, were equal again for the first time since March 2009.

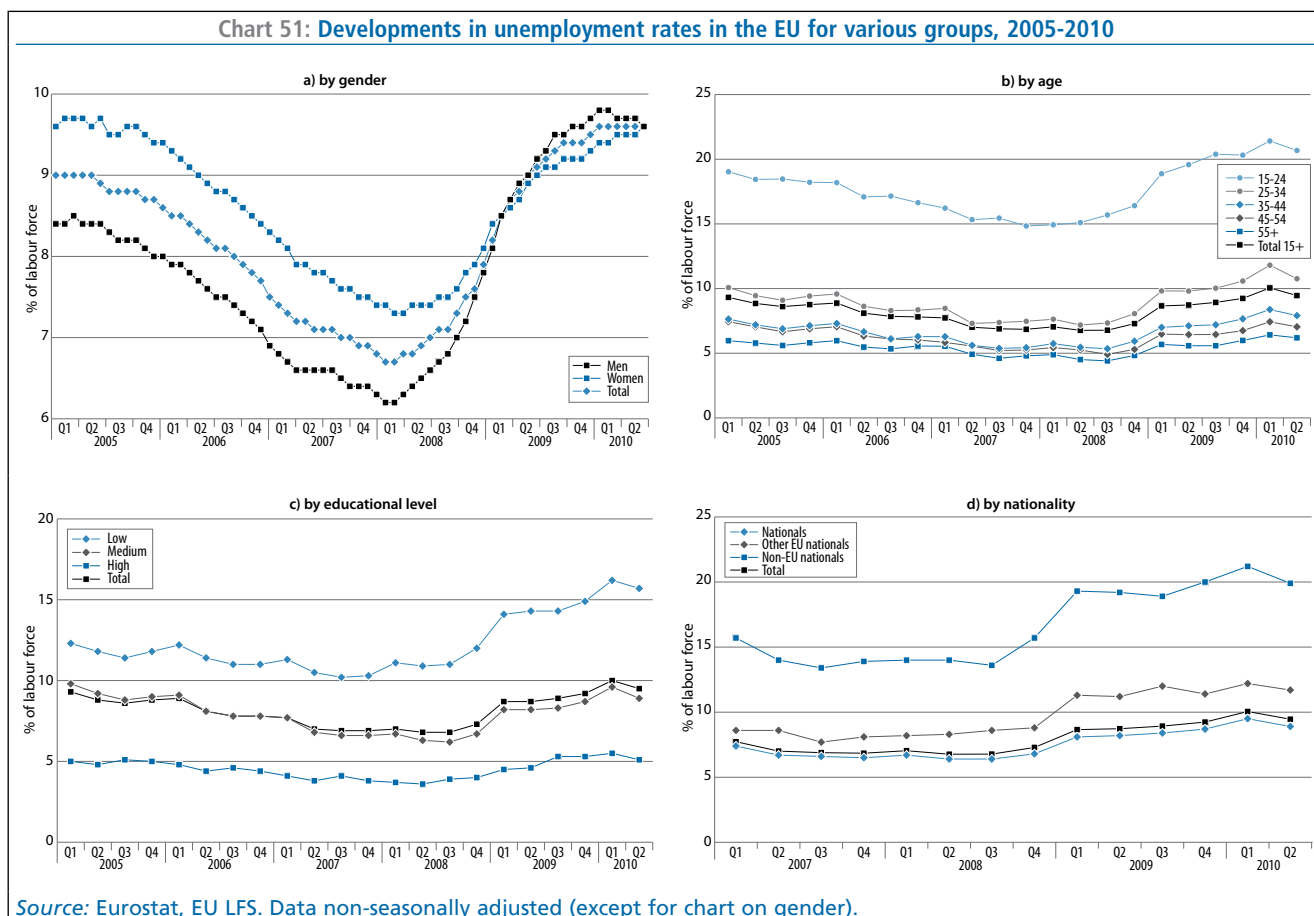
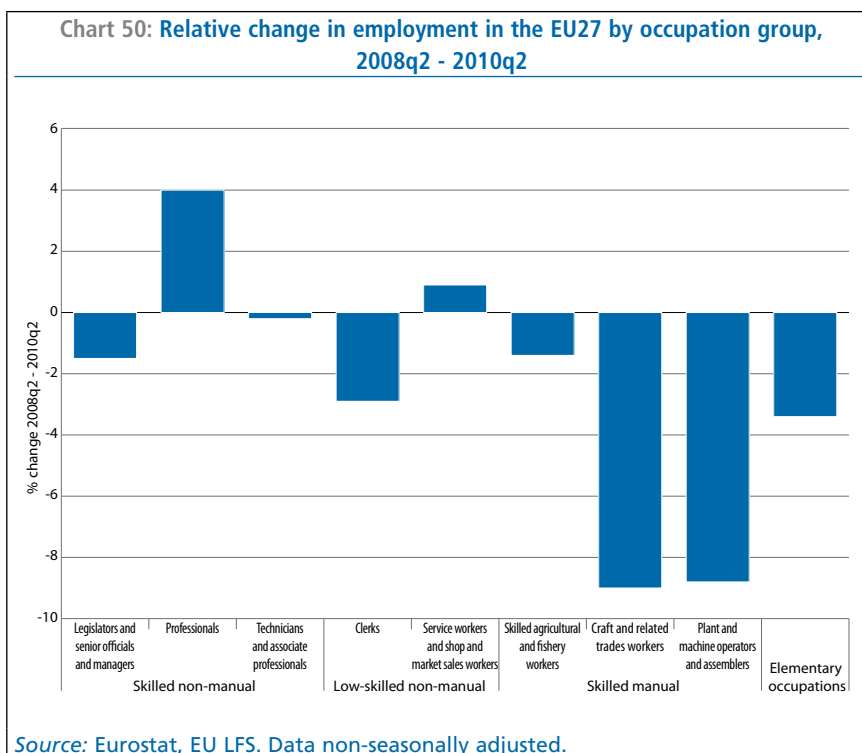
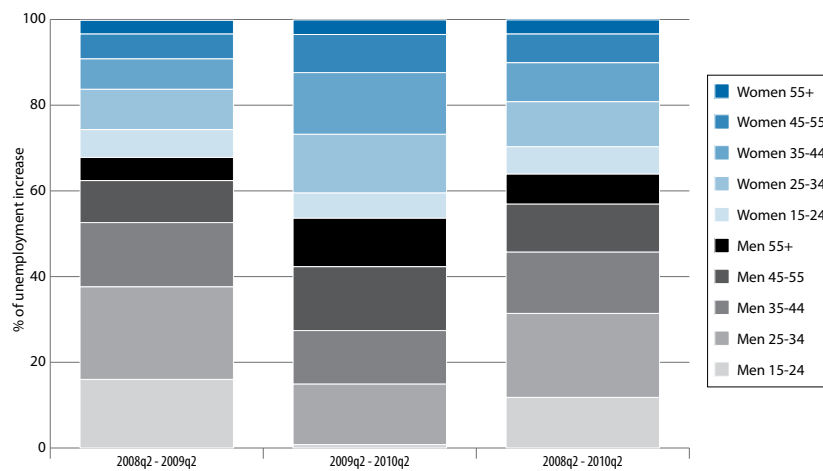


Chart 52: Composition of the rise in unemployment by sex and age, 2008q2 - 2010q2



Source: Eurostat, EU LFS. Data non-seasonally adjusted.

In terms of the absolute rise in unemployment in the EU from the second quarter of 2008 to the second quarter of 2010, men account for almost two thirds of the increase. Men aged 35–44, young male adults (aged 25–34) and male youth (aged 15–24) have been the worst affected during the downturn in absolute terms, together accounting for 45% of the overall increase in unemployment. However, the distribution of the total rise in unemployment differed in the two years of the downturn, shifting from younger men to older men and women. While in the first year of the downturn men aged 15–44 were affected most by rising unemployment (accounting for more than half of the total increase), in the second year men aged 45–55 and older men 55+ were hit more strongly, together with women aged 25–44, while young men were little affected (Chart 52). Overall, the rise in male unemployment has been more substantial than that for women across all age groups, being nearly double (1.6 times higher for men aged 35–54 to around twice for the older age group 55+ and for younger people

aged less than 35) the rise in female employment for all groups. In terms of relative increases, the level of male unemployment jumped by 50% from the second quarter of 2008 to the second quarter of 2010, while for women the rise was more limited, amounting to around 30%. Nevertheless, it is important to qualify this gender comparison, since measures of unemployment may not necessarily capture the full impact of the changing economic conditions on women, especially as they are more likely than men to leave the labour market altogether.

Turning to developments in unemployment for different age groups, in absolute terms around a third (30%) of the rise in unemployment from the second quarter of 2008 to the second quarter of 2010 is attributable to the increase in unemployment for young adults (aged 25–34), nearly a quarter (23.5%) to adults aged 35–44, 18% to youth (aged 15–24), 18% to older adults aged 45–54 and 10% to older people aged 55 and over. As a result, unemployment rates have risen for all age groups, but particularly

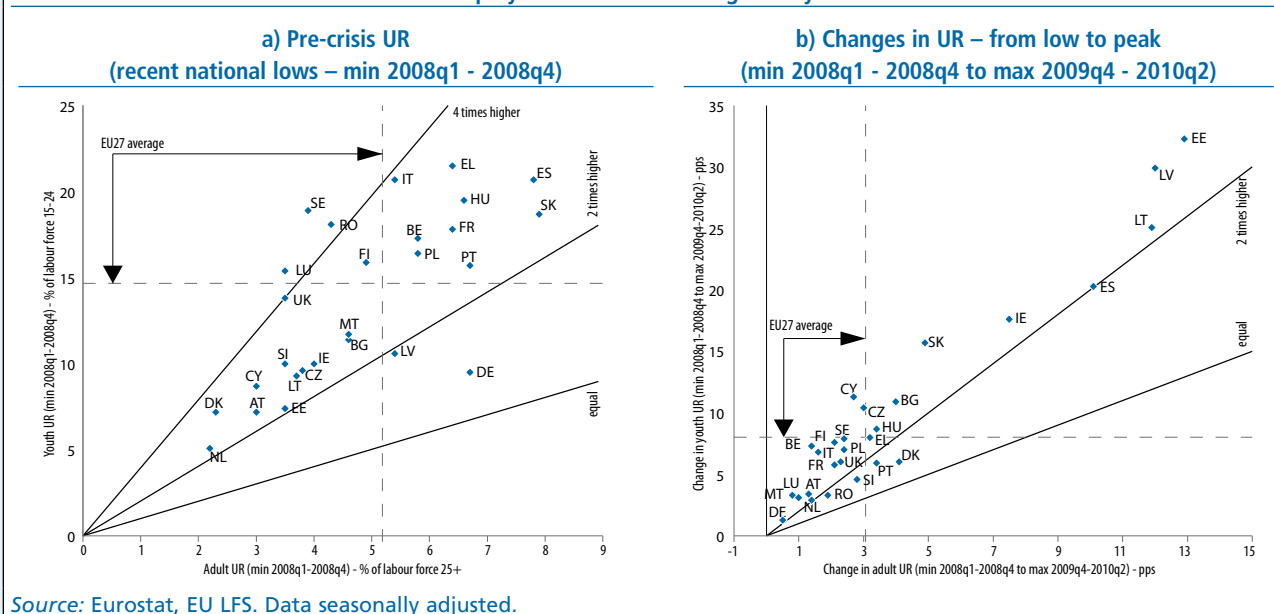
strongly for young people aged 15–24 (Chart 51b), for whom the rate started to rise earlier and increased particularly steeply in the first quarter of 2009, and for young adults. By the second quarter of 2010 the unemployment rate for youth had risen 5.6 percentage points relative to the second quarter of 2008 and by 3.6 percentage points for young adults, in comparison to rises of 2.5 percentage points for adults aged 35–44, and 1.8 percentage points for older adults aged 45–54 and 1.7 percentage points for older people aged 55+, thus reflecting a systematic pattern of lower increases in the unemployment rate for higher age groups.

As unemployment rates for young people were already substantially higher than those for other age groups, the strong deterioration in the labour market situation for youth during the crisis has been of increasing concern. The increase in youth unemployment at EU level has been driven by a sharp rise in the unemployment rate for young men, at least initially, which has been much more pronounced than the rise for young women. It particularly reflects a strong jump in youth unemployment in Spain, together with significant increases in France and the UK, although youth unemployment rates have also risen in all other Member States, and especially so in the Baltic States and Ireland. As a further consequence of the decrease in employment opportunities for young people, the share of young people aged 15–24 not in employment, education or training (NEETs) had increased to above 13% by the second quarter of 2010, from just above 11% in the first half of 2008, and this risks becoming a significant problem unless urgent action is taken to improve young people's situation on the labour market (Box 4).

Box 4: Impact of the crisis on youth and policy action taken to address their relatively weak labour market situation

The economic crisis and the ensuing deterioration in the EU’s labour markets has exacerbated the labour market problems of the traditionally more vulnerable groups, which include young people — those under 25. Young people have seen their labour market situation deteriorate markedly, reflecting the fact that they are particularly vulnerable as they have to make the most frequent transitions — from school to first job, from first to second job, and so on, and are relatively more often engaged in precarious jobs. With unemployment among young people topping 20% of their active population, their labour market situation is of increasing concern.

Chart 53: Unemployment rates and changes for youth and adults



Youth unemployment has risen markedly.....

Youth unemployment had already been rising since spring 2008, but rose even more sharply from autumn 2008 to spring 2009 amid the economic downturn, before moderating subsequently. Although the labour market for young people has stabilised since last autumn, with youth unemployment actually declining by 258 000 since September 2009, by July 2010 the number of unemployed young people stood at 5.1 million, still up by nearly 30% (1.1 million) compared to beginning of 2008.

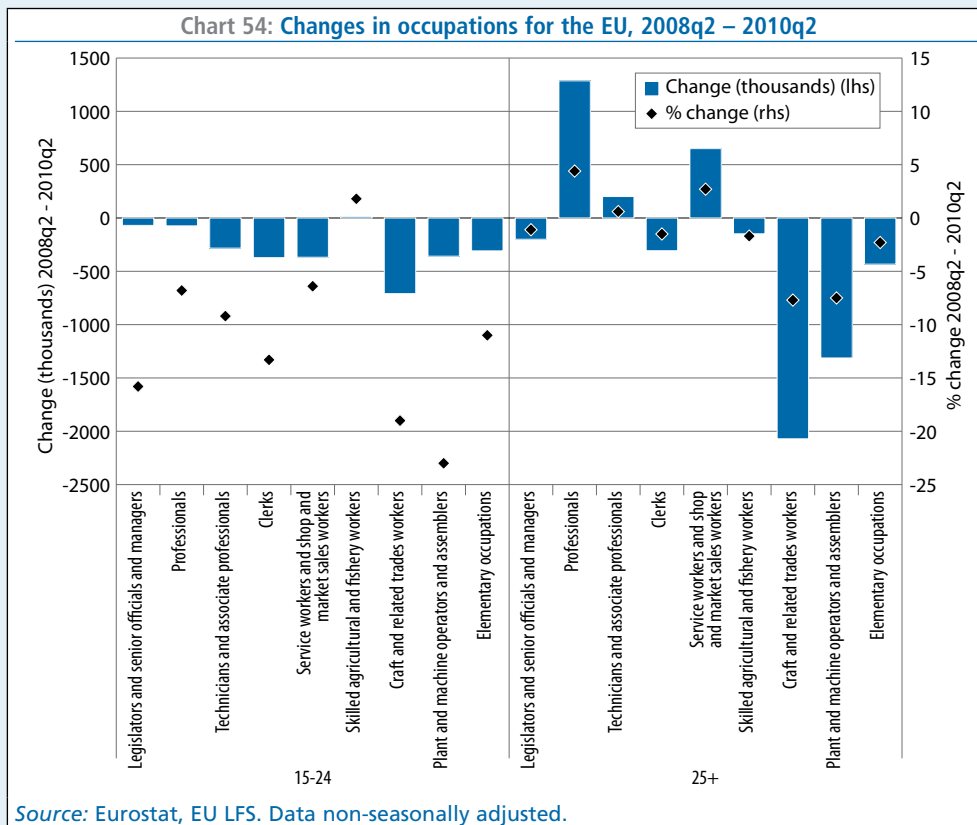
The youth unemployment rate has always been significantly higher than that of the adult population – at the onset of the downturn the ratio of the youth unemployment rate to the adult rate was 2.6 for the EU on average, with large differences across countries (Chart 53a). Since youth unemployment is more responsive to the business cycle than adult unemployment, the relative situation of young people has become even worse during the downturn:

- The unemployment rate for youth increased by nearly 6 percentage points to 20.6% in the first quarter of this year (before falling to 20.5% in the second), compared to a more limited rise of around 2.5 percentage points for adults (to 8.3% in the second quarter of 2010).
- Even when “correcting” for the large population of inactive youth, the unemployment-to-population ratio for youth rose by around 2.5 percentage points to 9.1% in the first quarter of 2010 before falling to 8.9% by mid-2010, while that for adults increased more moderately – from around 3.5% in the beginning of 2008 to 5.2% in the first quarter of 2010 (and 4.9% in the second quarter).

The increase in unemployment rates for youth (from the recent low to the recent peak over the period 2008q1 – 2010q2⁽¹⁾) has been the highest in countries which were affected earlier by the crisis (i.e. Spain, Ireland and the Baltic States), and the rise for youth has outpaced that for adults across all Member States (Chart 53b). However, the labour market for youth has shown some signs of stabilisation earlier; the rate for young people had reached a peak already by the first quarter of 2010, while that for adults has continued to rise to mid-2010 in most Member States, while leaving the ratio of the youth to adult unemployment rate for the EU at 2.5.

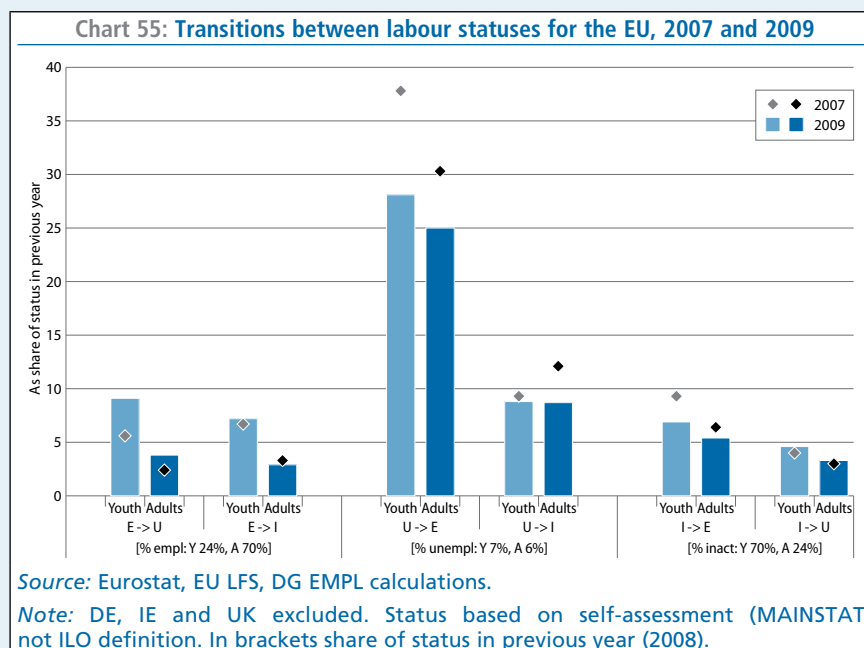
(1) The rises are between different periods for each Member States and may be over different periods for youth and adults.

... reflecting strong job losses among youth...



The rises in unemployment reflect substantial employment losses among youth. Employment has declined markedly for youth across almost all occupational groups, partially due to the disproportionate presence of temporary jobs among young people (see Chapter 3 (section 2) on temporary contracts) and their disproportionate concentration in certain cyclically-sensitive industries. The decrease in employment resulted in increased shares of both unemployed and inactive among youth⁽²⁾. Employment among adults has also declined, however, contrary to youth, reductions have not impacted all occupational groups; the number of professionals and adult service workers has increased strongly (Chart 54).

... and weaker labour market dynamics...



(2) While the number of unemployed has increased significantly since the beginning of 2008, the number of inactive declined. However, since the youth population also has declined over the last two years, both shares of unemployed and inactive has increased.

Overall, youth has always undergone significantly more frequent transitions between different labour statuses than adults, often moving in and out of employment before finding a job that meets their expectations or withdrawing from the labour market for a period e.g. returning to education (see Chapter 3 (section 6) on labour market transitions). However, during the recent downturn, labour market dynamics for youth worsened noticeably, also relatively compared to adults' transitions, as young people sought to enter the labour market at a time of limited job opportunities and employment contraction (Chart 55).

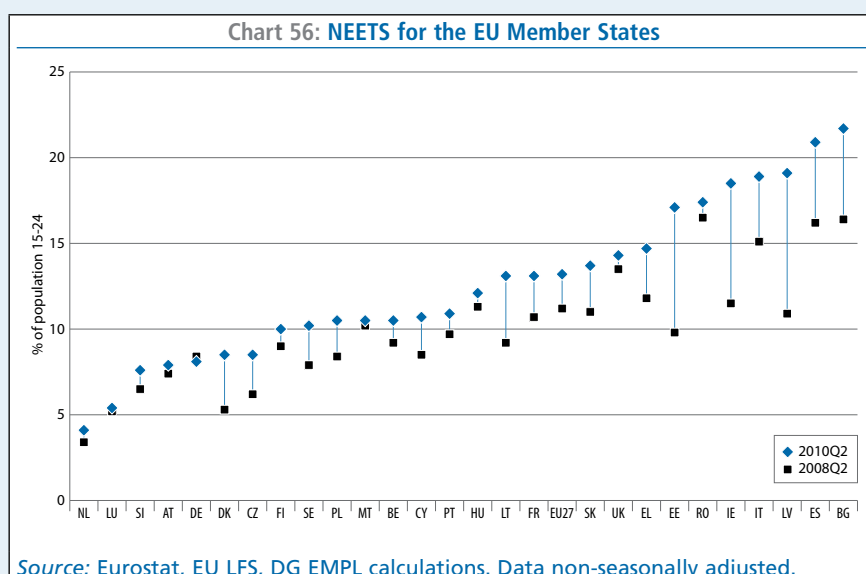
In 2009 compared to 2007, a significantly higher share of youth employed in the previous year become unemployed, but only a slightly higher share inactive, while a notably lower share of the unemployed (but also of the inactive) entered employment. Significantly more unemployed young people (nearly 65% compared to just over 50% in 2007), and to a more moderate extent inactive youth (88.5% versus 86.7%), remained in the same status compared to the previous year. Restrained recent transitions from unemployment to employment bring about long-term risks, like increased long-term unemployment or detachment from the labour market.

...leading to higher shares of youth neither in education nor in employment or training.

An increase in inactivity among young people may not necessarily be a negative phenomenon, in particular as long as education and training remain a reason for staying outside of the labour market⁽³⁾. However, amid the economic crisis and the subsequent weak labour market recovery, disadvantaged young people discouraged by poor future employment prospects may see little benefit from furthering their education and training, while transitions from school to work have been, and will be, difficult for young people, especially the low-educated.

Indeed, a decline in participation has pervasive effects if not matched by youth seeking to improve their future labour market opportunities through increasing their training and skills. This most challenging group among young people, facing real difficulties on the labour market, is proxied by the share of youth neither in education nor in employment or training (NEET)⁽⁴⁾. The size of this group had been declining up till mid-2008, however due to the downturn the share of NEETs among youth aged 15-24 has picked up over the two years to the second quarter of 2010 by 2 percentage points, from just above 11% to just above 13%.

The NEET share rose over the two years in all Member States except Germany, with rises most pronounced in the Baltic States, Ireland and Spain (but also in Bulgaria and Italy), in line with the particularly strong deterioration in labour markets in those Member States (Chart 56).



High unemployment rates and shares of youth classified as NEET, and difficulties in prompt school-to-work transitions for new generations of entrants in the labour market, which have been aggravated during the recent crisis, bring about long-term risks of detachment from the labour market, i.e. discouragement, long-term unemployment, high persistent inactivity and reduction of earnings and potential exclusion, especially among young people lacking education. Additionally, the crisis has worsened youth's already disadvantaged position in employment, even among youth holding degrees, in part due to their lack of professional experience and their greater employment in precarious jobs, with them facing increased difficulties in recruitment and increased engagement in occupations for which they are overqualified. As labour market recovery remains weak, these problems affecting the situation of young people will remain a concern.

(3) Which may consequently increase human capital, potential future improvement in school-to-work transitions and better job opportunities (see Chapter 3, section 4 on school-to-work transitions and NEETS).

(4) See the European Commission Communication "Youth on the Move", COM(2010) 477.

The Commission intends to improve employment opportunities for youth...

In the light of the particularly strong deterioration in the labour market situation for youth, the EU aims to consolidate EU policy for youth employment. A common policy framework could be a strong tool for ensuring that policy orientations filter down to the grass-roots level where the practical action takes place, given that regional and local bodies — administration, public employment services, chambers of commerce, education and training establishments, and youth services — deal directly with young people, often with responsibility for the use of public funds.

Such an initiative would lay the groundwork for further specific initiatives to:

- Step up vocational training through more apprenticeship schemes;
- Foster a high-quality learning experience at the work-place following graduation (“traineeships”), including in another Member State;
- Promote the geographical mobility of young workers;
- Stimulate the recruitment of young people.

The European Social Fund already provides substantial financial support for youth employment in the Member States, but more focused, innovative approaches may be needed in the future (entailing more apprenticeships, more and better-quality traineeships etc.). In these respects, the forthcoming youth employment framework is expected to provide appropriate policy guidance.

... and has made them the theme of one of its flagship initiatives for Europe 2020

In this context, the EU has made “Youth on the move” one of its flagship initiatives under the Europe 2020 strategy, to enhance the performance of education systems and to facilitate the entry of young people to the labour market. The aim is to enhance the performance and international attractiveness of Europe’s higher education institutions and raise the overall quality of all levels of education and training in the EU, combining both excellence and equity, by promoting student mobility and trainees’ mobility, and improve the employment situation of young people.

At EU level, the Commission will work:

- To integrate and enhance the EU’s mobility, university and researchers’ programmes (such as Erasmus, Erasmus Mundus, Tempus and Marie Curie) and link them up with national programmes and resources;
- To step up the modernisation agenda of higher education (curricula, governance and financing) including by benchmarking university performance and educational outcomes in a global context;
- To explore ways of promoting entrepreneurship through mobility programmes for young professionals;
- To promote the recognition of non-formal and informal learning;
- To launch a Youth employment framework outlining policies aimed at reducing youth unemployment rates: this should promote, with Member States and social partners, young people’s entry into the labour market through apprenticeships, stages or other work experience, including a scheme (“Your first EURES job”) aimed at increasing job opportunities for young people by favouring mobility across the EU.

At national level, Member States will need:

- To ensure efficient investment in education and training systems at all levels (pre-school to tertiary);
- To improve educational outcomes, addressing each segment (pre-school, primary, secondary, vocational and tertiary) within an integrated approach, encompassing key competences and aiming at reducing early school leaving;
- To enhance the openness and relevance of education systems by building national qualification frameworks and better gearing learning outcomes towards labour market needs;
- To improve young people’s entry into the labour market through integrated action covering, inter alia, guidance, counselling and apprenticeships.

In terms of skill levels (Chart 51c), in line with the strong decline in employment for the low-skilled, their unemployment rates increased by 4.8 percentage points over the two years of the labour market downturn (from the second quarter of 2008 to the second quarter of 2010), compared with more limited rises of 2.6 percentage points for the medium-skilled and 1.5 percentage points for the high-skilled. This reflects the fact that the majority of the rise in unemployment consists of low- or medium-skilled people (accounting for 36% and 46% of the rise in unemployment, respectively) and much less so of the high-skilled (18%). Focussing on the age group 15-24, there has been a strong deterioration of the labour market situation for youth, even among the high skilled. The unemployment rate for high-skilled youth increased strongly (up 4.3 percentage points) over the two years, even exceeding the overall rise for medium-skilled adults and similar to that for low-skilled adults. This may reflect a jump in recent graduates unable to find employment, or unwilling to take up the limited and unattractive job opportunities on offer.

In terms of nationality groupings, migrants have been relatively more affected by rising unemployment, especially those migrants originating from outside the EU – traditionally one of the most vulnerable groups on the labour market (Chart 51d). While unemployment rates for nationals rose by 2.5 percentage points between the second quarter of 2008 and the second quarter of 2010, those for nationals of other EU countries rose by a more substantial 3.5 percentage points and for third-country nationals by an even stronger 5.9 percentage points (with the latter experiencing particularly steep rises in the last quarter of 2008 and first quarter of 2009).

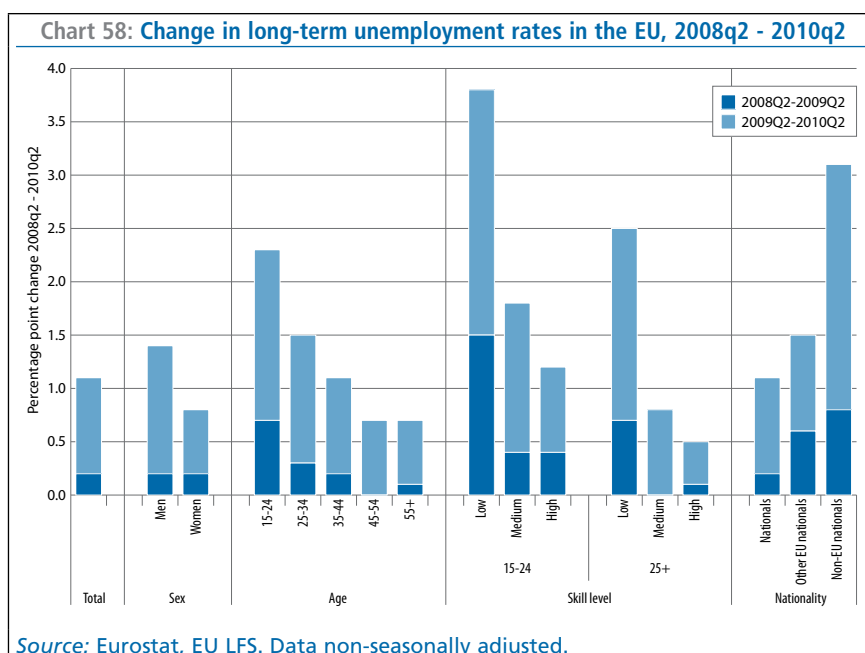
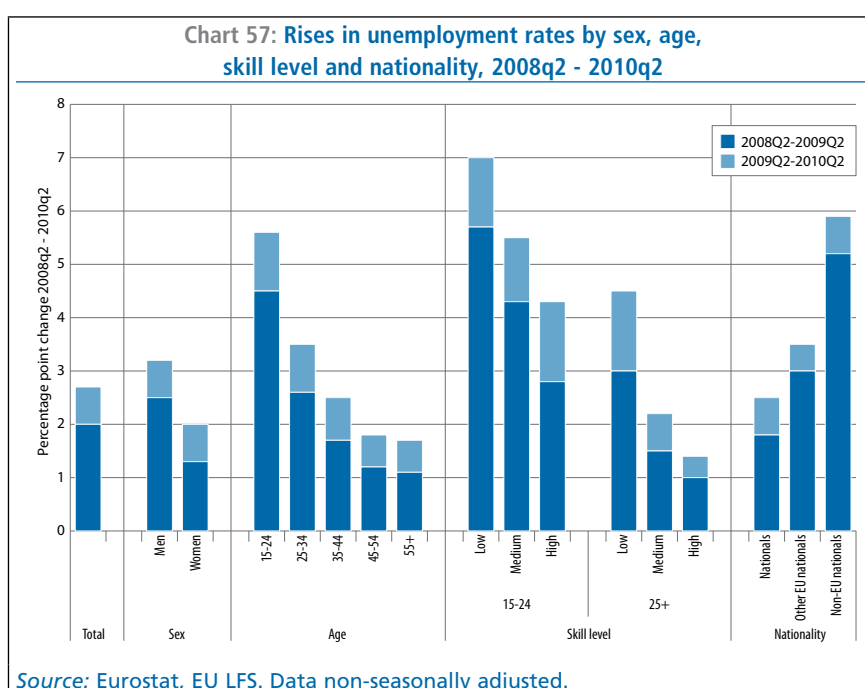
In summary, the population subgroups that have been most affected by the rise in unemployment have been young people (including high-skilled

youth), the low-skilled in general, migrants (especially those originating from outside the EU), and men rather than women. In all cases, the increase was significantly higher over the first year of the labour market downturn than in the second (Chart 57).

3.4. Long-term unemployment

Long-term unemployment has been increasing across all population

groups, although to varying degrees, and closely reflects underlying developments in overall unemployment. As the effects of the crisis caused more severe increases of unemployment among the already most disadvantaged groups, this has aggravated the risk of long-term unemployment among youth, non-EU migrants and the low-skilled, while long-term unemployment also increased relatively more for men and young adults (25-34) as well as for mobile EU citizens



residing in other EU countries (other-EU nationals). The rise in long-term unemployment affected all population segments significantly more strongly in the second year of the labour market downturn, reflecting the lag with which the marked increase in unemployment fed through into long-term unemployment (Chart 58).

In line with the developments in unemployment over the two years to the second quarter of 2010, the long-term unemployment rate increased more for men than for women (by 1.4 percentage points for men and 0.8 percentage points for women). With respect to age, the long-term unemployment rate increased most significantly over the two years (by 2.3 percentage points) for youth, climbing to a substantial 5.9%, and for young adults aged 25-34 (up by around 1.6 percentage points), whose rate (at 4.0% in the second quarter) has in the last year exceeded that for older people aged 55-64 (3.3% in 2010q2). In terms of skill levels, between the second quarter of 2008 and the second quarter of 2010 the rate increased most for the low-skilled (up 2.6 percentage points), including a steep surge of 3.8 percentage points for low-skilled youth (who, in contrast to other population segments, already experienced a sharp rise in the first year of the downturn), and a 2.4 percentage point jump for low-skilled adults. These rises compare to much lower increases of 0.9 percentage points for the medium-skilled and only 0.5 percentage points for the high-skilled. The rate for low-skilled has now reached 6.9%, while for the medium-skilled it is at 3.4% and for the high-skilled at 1.6%. In terms of nationality, over the two years the long-term unemployment rate increased most substantially (by 3.1 percentage points) for third country migrants (to 7.8%) and by 1.5 percentage points for mobile EU citizens (to 3.9%), whose rate is now slightly higher than that for nationals (3.6%).

4. OUTLOOK

The EU is now recovering from recession, but the recovery is proving to be fragile. The economic recession came to an end in the third quarter of last year, in large part thanks to the exceptional crisis measures put in place under the European Economic Recovery Plan. Beyond the initial rebound, however, the recovery is proving more tentative than in past upturns, which is not surprising given the extent and nature of this crisis.

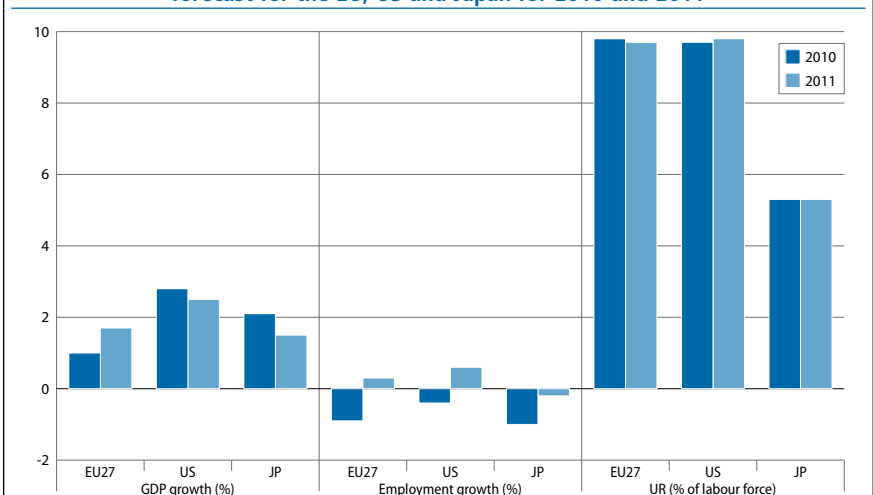
Nevertheless, economic sentiment in the EU is improving and recently returned to around its long-term average. At the same time, consumers' unemployment expectations continue to ease, and firms across all main sectors are increasingly less pessimistic about the outlook for employment. As a result, demand for labour has started to show a relative improvement, although generally remaining at levels well below those before the crisis erupted, while workplace activity through temporary work agencies, a leading indicator of a recovery in the labour market, has improved strongly. However, stronger than expected global growth and improved business and consumer confidence indicators have yet to be reflected in hard data for the labour market. Indeed, although the EU is on the path to economic

recovery, it appears too early for improvements in economic activity to have had any major impact on the labour market.

Furthermore, while the aggregated impact of the crisis on the labour market may be less in Europe, given the extent to which jobs have been protected, the labour market recovery may lag as a consequence. Indeed, reduced working hours in Europe have led to widespread *under-employment*, with the existing workforce likely to absorb increased demand through a rise in working hours before any major increase in staff levels takes place. Consequently, it may take some time before there is a clear upswing in the labour market.

The European Commission spring 2010 economic forecasts, the last with detailed forecasts for the labour market, reported that the fragile economic recovery underway in the EU continues to face headwinds from several directions. On the positive side the EU economy is likely to benefit from a stronger-than-expected turnaround in the global economy, most notably in emerging Asia, but opposing this are incomplete balance-sheet adjustments in several sectors/countries, weakness in the labour market which is likely to restrain domestic demand for years to come,

Chart 59: Comparison of GDP growth, employment growth and unemployment rates forecast for the EU, US and Japan for 2010 and 2011



Source: European Commission spring 2010 Economic Forecast.

and a continued high level of uncertainty regarding global imbalances and financial markets.

As a consequence, EU GDP growth was expected to remain rather subdued during the first three quarters of 2010, on average, and to regain ground only by the end of the year. This follows from, in particular, the fading impact of the temporary support that kick-started the recovery. Moreover, the pace of recovery was likely to vary considerably across Member States, with some countries (Cyprus, Greece, Ireland, Latvia, Lithuania and Spain) expected to remain in recession in 2010 while others were forecast to post growth

in excess of 2% (Luxembourg, Poland and Slovakia). An annual growth rate of about 1.0% was forecast for the EU for 2010, considerably below that expected for the US and Japan (around 2.8% and 2.1% respectively), while for 2011, EU GDP growth was expected to accelerate to 1.7% (Chart 59). By 2011, all EU countries, with the exception of Greece, were expected to have returned to positive economic growth.

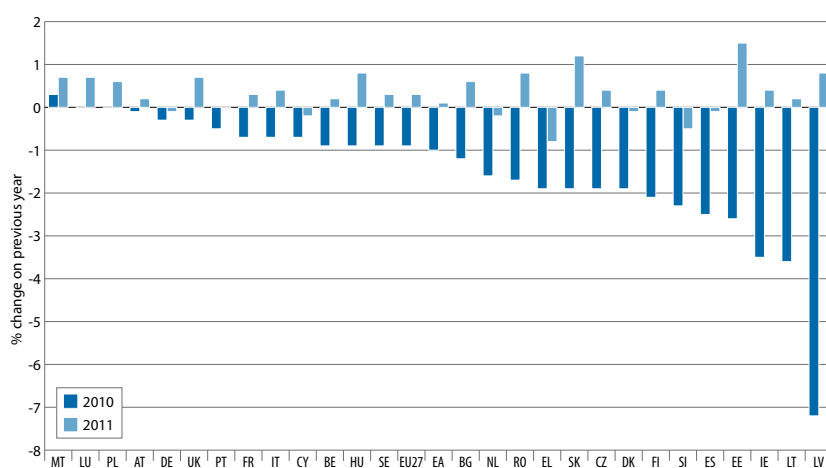
Despite apparent signs of stabilisation, the labour-market situation was forecast to remain weak for some time to come, while the mounting need for firms to improve productivity and profitability suggests that

further adjustments in the labour market will weigh more heavily on headcount than hours. Employment was expected to contract by 0.9% this year, leading to a further rise in the unemployment rate which was set to average 9.8% for the year as a whole. This compares with weaker employment contraction of 0.4% forecast for the US, and a similar 1.0% contraction in Japan, while the unemployment rate in the US was expected to remain very similar to that in the EU. Among EU Member States, all were expected to see further employment contraction in 2010 apart from Luxembourg and Poland, and Malta where it was forecast to expand slightly. The largest contractions were again expected in the Baltic States, Ireland and Spain (Chart 60).

The relatively limited overall labour-market adjustment in the EU during the crisis, reflecting a higher degree of labour hoarding during this recession which helped stem the rise in unemployment, suggests a rather jobless recovery ahead and (potentially persistent) high levels of unemployment. For 2011, job growth of only 0.3% was forecast for the EU, although on the positive side the vast majority of Member States were likely to see a return to employment expansion (albeit limited). The unemployment rate was expected to remain at 9.7%, only marginally down on 2010, while in the US and Japan the rates were also forecast to remain at their present, relatively high, levels. Among EU Member States, unemployment was expected to remain high compared to pre-crisis levels for some time, especially in the Baltic States, Greece, Ireland, Slovakia and Spain (Chart 61).

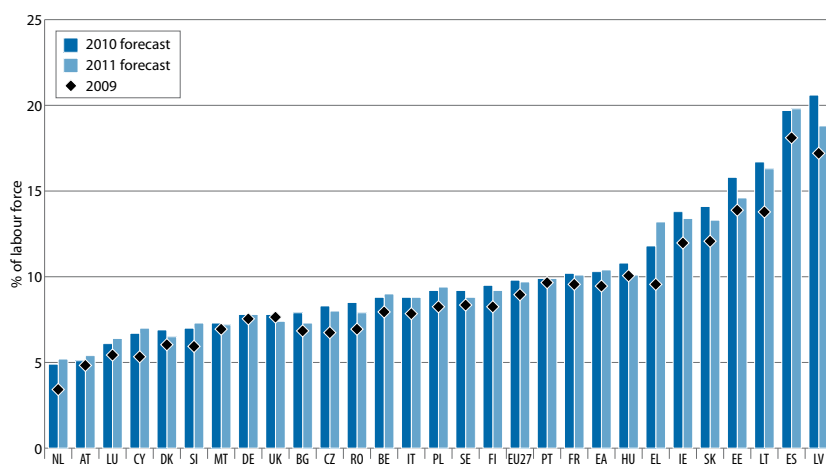
However, the more recent interim European Commission forecast released in September 2010 reports that the EU economy, while still fragile, is recovering at a faster pace than envisaged in early 2010 (GDP growth for the EU in 2010 is now forecast at 1.8%, a sizeable upward revision). As

Chart 60: Forecasts employment growth rates, 2010 and 2011



Source: European Commission spring 2010 Economic Forecast.

Chart 61: Forecasts unemployment rates, 2010 and 2011



Source: European Commission spring 2010 Economic Forecast.

a result, the labour market may perform somewhat better this year than expected at the time of the spring forecast. Nonetheless, conditions are set to remain weak, reflecting, inter alia, the partial unwinding of support measures and ongoing structural adjustment across sectors and firms.

5. LONGER TERM TRENDS AND PANORAMA OF ANNUAL INDICATORS FOR EU LABOUR MARKETS IN 2009

Even in these turbulent times, it is important to note the progress that has been made in European labour markets since 2000, and to compare the results for 2009 with those of preceding years. This section therefore provides an overview of annual labour market indicators for the EU for 2009 in a global context, and presents the longer term trends in the EU labour market, including the progress made with regard to the Lisbon and Stockholm employment rate targets.

5.1. EU labour market in 2009 from a global perspective

In 2009 the EU felt the full impact of the global economic crisis. The recession deepened compared to the year before - GDP in the EU contracted by an average of 4.2% in 2009 while in 2008, GDP growth had still been positive at 0.7% (Table 6). For the EU's main trading partners the picture was similar. In the United States (USA) economic growth of -2.6% was also significantly lower in 2009 than the year before, when it stagnated at 0.0%, although the decline in GDP was considerably smaller than for the EU. Japan also experienced a severe fall in GDP: in 2009, it was 5.2% lower than in 2008. For all regions, the decline in

Table 6: International Comparison of Key Indicators, 2007-2009

	2007	2008	2009
Population (millions)			
EU-27	496	499	501
EU-15	393	395	397
USA	302	305	307
Japan	128	128	128
GDP (in 1000 million PPS, current prices)			
EU-27	12371	12506	11809
EU-15	10930	10981	10365
USA	11704	11814	10717
Japan	3571	3548	3111
GDP Growth, at constant prices (annual % change)			
EU-27	2.9	0.7	-4.2
EU-15	2.7	0.5	-4.3
USA	2.1	0.4	-2.4
Japan	2.4	-1.2	-5.2
Employment Rate (as % of working age population)			
EU-27	65.4	65.9	64.6
EU-15	66.9	67.3	65.9
USA	71.8	70.9	67.6
Japan	70.7	70.7	70.0
Employment Growth (annual % change)			
EU-27	1.8	0.9	-1.8
EU-15	1.6	0.7	-1.9
USA	1.1	-0.4	-3.8
Japan	0.4	-0.3	-1.6
Unemployment Rate (as % of civilian labour force)			
EU-27	7.1	7.0	8.9
EU-15	7.0	7.1	9.0
USA	4.6	5.8	9.3
Japan	3.9	4.0	5.1

Source: GDP in PPS, GDP and employment growth from National Accounts, Eurostat. Employment rate from Eurostat (annual averages) and OECD data for US and Japan. Unemployment rate LFS, Eurostat. Population from demographic statistics, Eurostat.

Note: Employment rates for the EU and Japan refer to persons aged 15-64; US employment rate refers to persons aged 16 to 64.

GDP was unprecedented during the last 10 years.

The economic downturn severely affected the labour market in the EU. While the effect in 2008 was still limited, the crisis hit the labour market hard in 2009. Employment fell by 1.8%, while the year before it had still grown by 0.9%. Delays in labour market reactions to economic shocks are well known, but the EU's experience also reflects the policies that many Member States have adopted which served to reduce working hours rather than cut jobs. In the USA, the labour market was much more

affected by the economic downturn than in the EU. Employment growth of -3.8% was recorded in 2009, while it had been a more limited -0.4% in the previous year. This was the third year in a row that employment growth in the USA has been lower than in the EU. Furthermore, the drop in US employment growth was also higher than that in the EU.

Falling numbers of people in work resulted in lower employment rates. In 2009 on average 64.6% of the population aged 15-64 were in employment in the EU - 1.3 percentage points lower than the preceding

year - representing a sharp drop back to the level of 2006 (Chart 62). For the USA the drop in the employment rate was even more drastic. The rate of 67.6% in 2009 was more than 3 percentage points lower than the rate in 2008. The share of the

working age population in employment in the USA fell below that of Japan (70%), dropping back to levels last seen in the mid-80s and even approaching the traditionally lower rates of the EU. Despite the very strong fall in economic activity

in Japan, however, it experienced only a modest decrease of less than 1 percentage point in its employment rate.

The impact of the economic crisis on the labour market is also reflected in sharply increased unemployment. On average 21.4 million people were unemployed in the EU in 2009 - almost 9% of the labour force (Chart 63) – compared with only 7% a year before. Thus the unemployment rate was back up to the levels recorded in the period 2003-2005. However, the USA showed a much stronger increase in its unemployment rate in 2009. From less than 6% the year before, the rate rose to more than 9%, much higher than was common in the last 10 years. This clearly signifies a severe disturbance of the US labour market in 2009.

5.2. Labour market situation in the EU and in Member States in 2009

5.2.1. Employment rate

The employment rate of the EU working age population (15-64 years) in 2009 was 64.6%, 2.4 percentage points higher than in 2000, but nevertheless still more than 5 percentage points short of the Lisbon target of 70% (Box 5 and Table 7). The unfavourable economic situation has caused the EU to fall behind in its attempts to reach this target, with virtually all Member States experiencing a decline in employment rates in 2009.

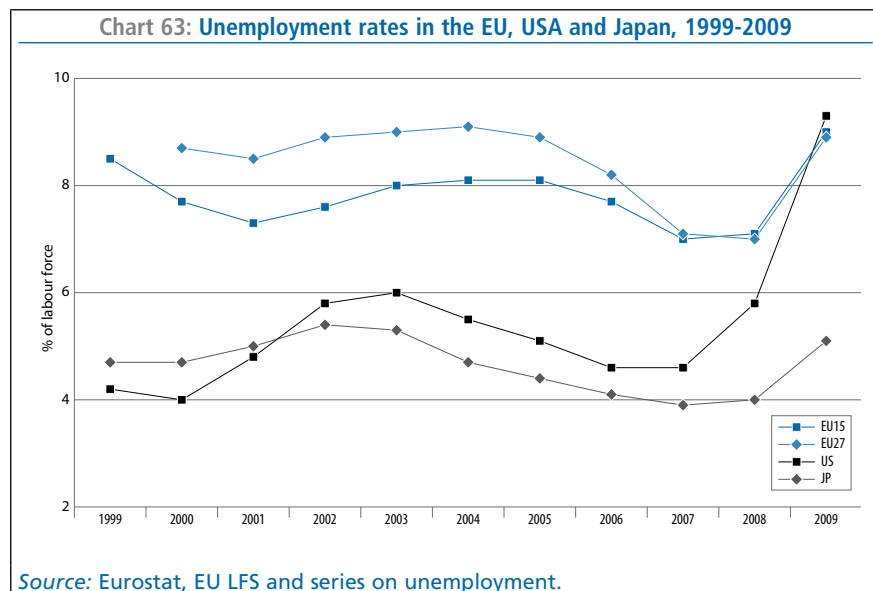
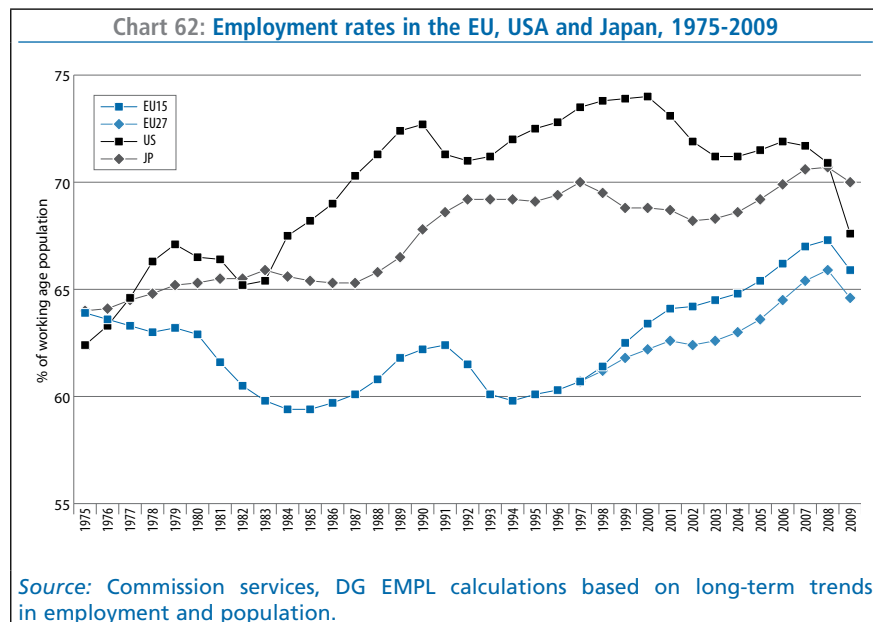


Table 7: Employment rates in EU Member States in 2009 and progress towards Lisbon and Stockholm targets for 2010

	Total employment rate				Female employment rate				Older people's employment rate			
	2009	Change 2009-08	Change 2009-00	Gap below 2010 target	2009	Change 2009-08	Change 2009-00	Gap below 2010 target	2009	Change 2009-08	Change 2009-00	Gap below 2010 target
BE	61.6	-0.8	1.1	8.4	56.0	-0.2	4.5	4.0	35.3	0.7	8.9	14.7
BG	62.6	-1.4	12.2	7.4	58.3	-1.1	12.1	1.7	46.1	0.0	25.3	3.9
CZ	65.4	-1.2	0.4	4.6	56.7	-0.9	-0.2	3.3	46.8	-0.8	10.6	3.2
DK	75.7	-2.4	-0.5	>	73.1	-1.2	1.5	>	57.5	0.5	1.8	>
DE	70.9	0.2	5.4	>	66.2	0.8	8.1	>	56.2	2.4	18.5	>
EE	63.5	-6.3	3.1	6.5	63.0	-3.3	6.1	>	60.4	-2.0	14.1	>
IE	61.8	-5.7	-3.3	8.2	57.4	-2.8	3.4	2.6	51.0	-2.7	5.7	>
EL	61.2	-0.6	4.8	8.8	48.9	0.2	7.3	11.1	42.2	-0.6	3.3	7.8
ES	59.8	-4.6	3.5	10.2	52.8	-2.1	11.5	7.2	44.1	-1.5	7.1	5.9
FR	64.2	-0.7	2.1	5.8	60.1	-0.3	4.9	>	38.9	0.8	9.1	11.1
IT	57.5	-1.2	3.8	12.5	46.4	-0.8	6.8	13.6	35.7	1.3	8.1	14.3
CY	69.9	-0.9	4.3	0.1	62.5	-0.4	8.9	>	56.0	1.2	6.6	>
LV	60.9	-7.7	3.5	9.1	60.9	-4.6	7.1	>	53.2	-6.2	17.2	>
LT	60.1	-4.2	1.0	9.9	60.7	-1.1	2.9	>	51.6	-1.5	11.2	>
LU	65.2	1.8	2.5	4.8	57.0	1.8	6.9	3.0	38.2	4.1	11.5	11.8
HU	55.4	-1.3	-0.9	14.6	49.9	-0.7	0.2	10.1	32.8	1.3	10.6	17.2
MT	54.9	-0.3	0.7	15.1	37.7	0.2	4.6	22.3	28.1	-1.1	-0.4	21.9
NL	77.0	-0.2	4.0	>	71.5	0.4	8.0	>	55.1	2.1	16.9	>
AT	71.6	-0.5	3.2	>	66.4	0.6	6.8	>	41.1	0.1	12.2	8.9
PL	59.3	0.1	4.3	10.7	52.8	0.4	3.8	7.2	32.3	0.8	3.9	17.7
PT	66.3	-1.9	-2.1	3.7	61.6	-0.9	1.1	>	49.7	-1.1	-1.0	0.3
RO	58.6	-0.5	1.0	11.4	52.0	-0.5	0.2	8.0	42.6	-0.5	5.4	7.4
SI	67.5	-1.0	4.7	2.5	63.8	-0.4	5.4	>	35.6	2.8	12.8	14.4
SK	60.2	-2.1	3.4	9.8	52.8	-1.8	1.3	7.2	39.5	0.3	18.2	10.5
FI	68.7	-2.4	1.5	1.3	67.9	-1.1	3.7	>	55.5	-1.0	13.8	>
SE	72.2	-2.1	-0.8	>	70.2	-1.6	-0.7	>	70.0	-0.1	5.0	>
UK	69.9	-1.6	-1.3	0.1	65.0	-0.8	0.3	>	57.5	-0.5	6.8	>
EU15	65.9	-1.4	2.5	4.1	59.9	-0.5	5.8	0.1	48.0	0.6	10.1	2.0
EU27	64.6	-1.3	2.4	5.4	58.6	-0.5	4.9	1.4	46.0	0.4	9.1	4.0
2010 target			70%				> 60%				50%	

Source: Eurostat, EU LFS.

Note: Data for RO 2002 instead of 2000.

Box 5: The Lisbon and Stockholm targets and Europe 2020 strategy

The 2000 Lisbon European Council set a strategic goal over the decade 2000–2010, for the EU to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. It specifically stated that the overall aim of employment and economic policies should be to raise the employment rate to as close to 70% as possible by 2010 and, as part of that goal, to increase the employment rate for women to more than 60% by the same year. In addition to the 2010 Lisbon targets, the 2001 Stockholm European Council set a new target of raising the average EU employment rate for older men and women (aged 55–64) to 50% by 2010.

In early 2010, the European Commission launched a new strategy for the next decade, the Europe 2020 Strategy, to support recovery from the crisis and to set out where the EU wants to be by 2020. The new strategy provides a vision of Europe's social market economy for the 21st century, based on three mutually reinforcing priorities:

- *Smart growth*: developing an economy based on knowledge and innovation.
- *Sustainable growth*: promoting a more resource efficient, greener and more competitive economy.
- *Inclusive growth*: fostering a high-employment economy delivering social and territorial cohesion.

As a key part of the strategy, the Commission proposed several headline targets for the EU, including a new employment target, namely that 75 % of the population aged 20–64 should be in employment by 2020.

In March 2010 the European Council agreed the main elements of the Europe 2020 strategy, including the headline employment rate target, emphasising that this target should be met in part through greater participation of youth, older workers and low-skilled workers and better integration of legal migrants. This overall EU target is also to be translated into national targets.

In 2009, only five Member States recorded an employment rate of more than 70%, the overall Lisbon target (Chart 64), namely the Netherlands (77.0%), Denmark (75.7%), Sweden (72.2%), Austria (71.6%) and Germany (70.9%). Three Member States were less than 2 percentage points short: Cyprus and the United Kingdom (both 69.9%) and Finland (68.7%). In 2008, these three exceeded the target, but the economic crisis resulted in their rates dropping to just beneath the threshold. At the other end of the scale, six Member States remained a considerable distance from the target, with rates of over 10 percentage points below, namely Malta (54.9%), Hungary (55.4%), Italy (57.5%), Romania (58.6%), Poland (59.3%) and Spain (59.8%). The low rates in Italy, Poland and Spain have a substantial impact in pulling down the EU average.

Regarding the EU target for the female employment rate, progress has been better. In 2009, 58.6% of working-age women were employed - a shortfall of only 1.4 percentage points compared to the Lisbon target. Since 2000, considerable progress has been made in expanding female employment, with the employment rate for women increasing by almost 5 percentage points, although the rate decreased by 0.5 percentage points in 2009 compared with 2008.

In 2009, 14 Member States had a female employment rate at, or above, the Lisbon target of 60% (Chart 65). However, most of the remaining Member States were still a long way from reaching the target, with four more than 10 percentage points short, namely Malta (37.7%), Italy (46.4%), Greece (48.9%) and Hungary (49.9%). In four Member States (Estonia, Ireland, Spain and Latvia) the labour market situation deteriorated significantly in 2009, with a decrease in their female employment rates of more than 2 percentage points compared to the previous year. In a longer-term perspective, and against the general

trend of expanding female employment in the EU, Romania, Hungary and the Czech Republic have registered virtually no progress at all since 2000.

In most Member States the gender gap in employment rates remains substantial (Chart 66). This is particularly the case in Greece, Italy, and Malta where the employment rate for men is more than 20 percentage points higher than that for women. In a further 15 Member States, the gap lies between 10 and 20 percentage points. In contrast, in Finland and Sweden the employment rates

for men and women differ by less than 5 percentage points, and are broadly the same in Estonia, Latvia and Lithuania.

In contrast to the decline in employment rates observed for other age groups, the EU employment rate for persons aged 55–64 increased slightly in 2009, rising by 0.4 percentage points on 2008 to 46%. Although the rate has risen substantially since 2000, increasing by almost 9 percentage points, it still falls 4 percentage points short of the target set by the 2001 Stockholm Council of an employment rate of 50%.

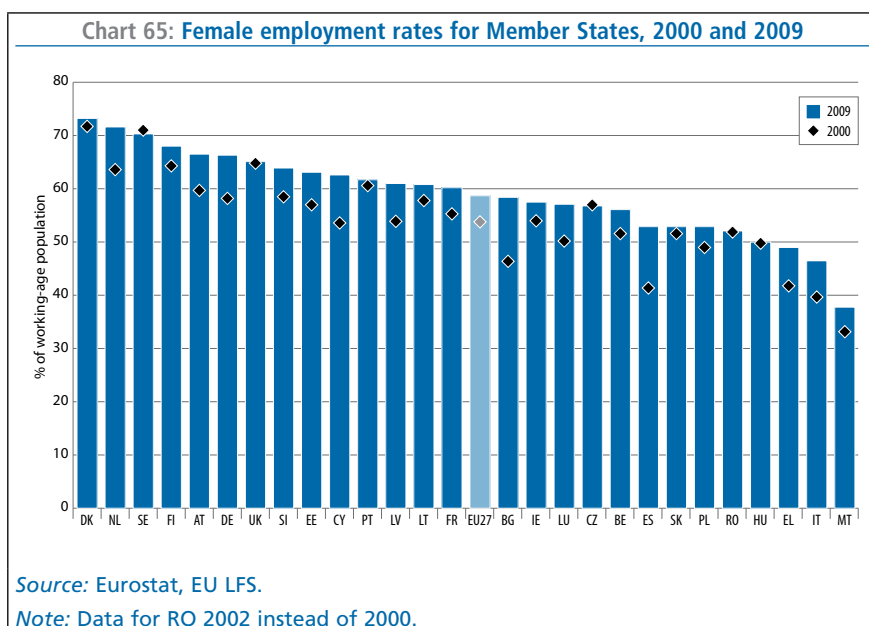
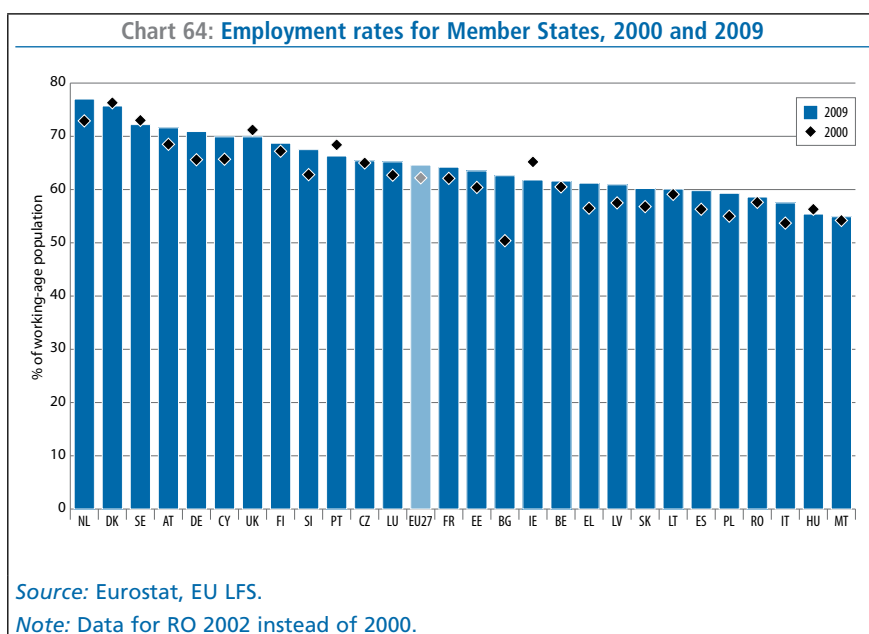
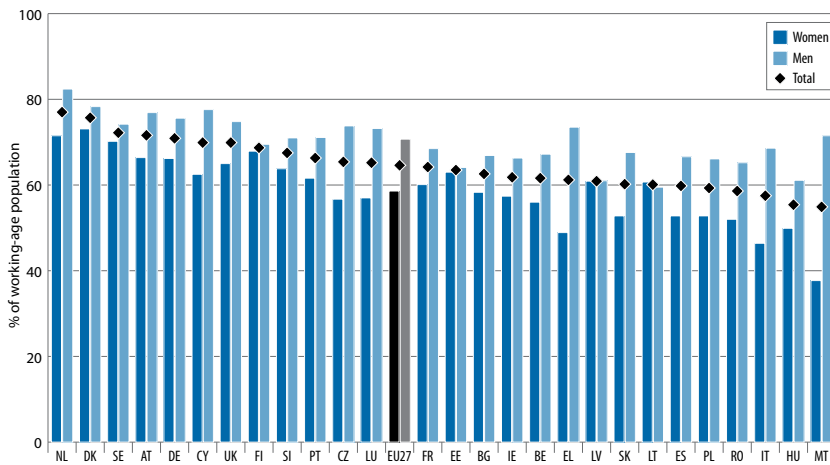


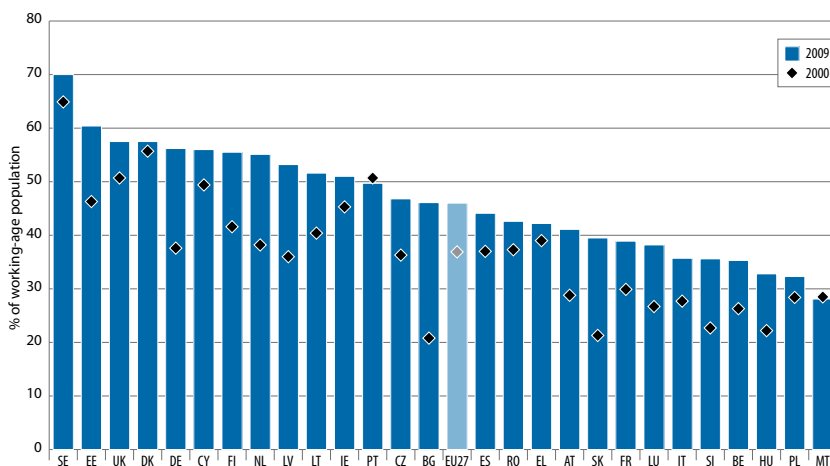
Chart 66: Employment rates for Member States by gender, 2009



Source: Eurostat, EU LFS.

In 2009, only 11 Member States had an employment rate for persons aged 55–64 of above 50%, with Portugal just edging back below the target in that year. However a considerable number of Member States remain more than 10 percentage points short of the Stockholm target: Belgium, France, Hungary, Italy, Luxembourg, Malta, Poland, Slovenia and Slovakia. Luxembourg made significant progress in 2009, with the rate increasing by 4 percentage points. Slovenia also showed substantial progress, with its rate rising by close to 3 percentage points. With a value of less than 30%, however, Malta had the lowest employment rate for older persons among all the Member States, having made no significant improvement since 2000 (Chart 67).

Chart 67: Employment rates for persons aged 55–64 for Member States, 2000 and 2009

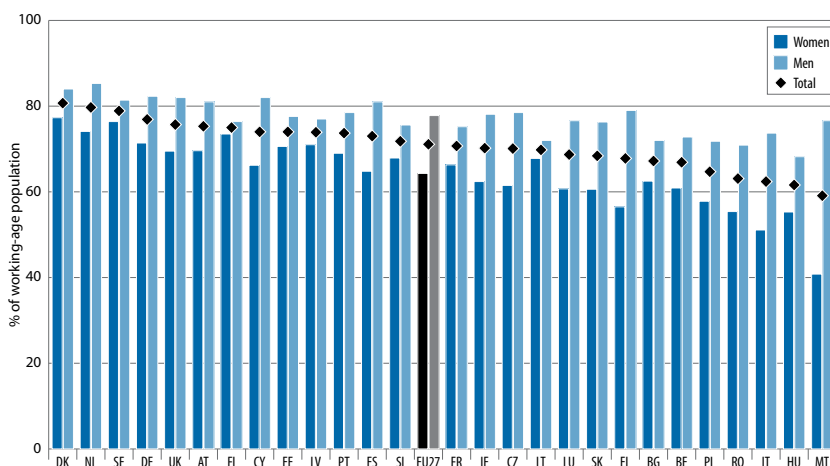


Source: Eurostat, EU LFS.

Note: Data for RO 2002 instead of 2000.

Despite the recent setback in employment rates brought about by the crisis, substantial progress has been made in EU labour markets since 2000. Until the crisis hit, the number of people in employment had increased by around 16.5 million between 2000 and 2008 and, even with the impact of the crisis, the increase was still almost 12.5 million, or 6%, in 2009 compared with 2000. The longer term progress particularly reflects the substantial increases since 2000 in employment of women and especially of older workers aged 55-64 (whose employment has risen 43%). In contrast, employment of young people aged 15-24 has declined by almost 8%, reflecting both that they have been hit particularly hard by the crisis and the trend of young people remaining in education longer.

Chart 68: Activity rates for Member States by gender, 2009



Source: Eurostat, EU LFS.

The marked rise in the employment of women reflects their increasing participation in the labour market, in part due to the greater availability of more flexible working arrangements, especially part-time work, and their improved skill levels. For older workers it partly reflects the impact of active ageing strategies and pension reforms that have encouraged people to remain in the labour market longer, together with age composition effects on the

older population combined with the cohort effects of increasing female participation in the labour market.

5.2.2. Activity rate

In 2009, 71% of the working-age population in the EU-27 was active on the labour market (i.e. either employed or unemployed). Participation rates ranged from as high as almost 81% in Denmark to as low as 59% in Malta, with more than half of the Member States displaying rates in excess of 70%, while Hungary, Italy, Poland and Romania joined Malta in recording rates of less than 65%.

Activity rates vary significantly between men and women. For women the activity rate was slightly above 64% in 2009, compared with 78% for men (Chart 68). This inequality varies considerably between Member States. Differences of more than 20 percentage points can be observed in Greece, Italy and Malta, with Cyprus, the Czech Republic, Ireland and Spain also showing relatively large differences. In contrast, the Nordic and Baltic States display relatively small differences. Member States with the largest gender differences in activity rates are also generally those that are furthest from reaching the Stockholm target on female employment.

5.2.3. Unemployment

Unemployment in the EU rose substantially for both men and women in 2009, although the rise was stronger for men. The unemployment rate for men rose to 9%, up from less than 7% in the previous year. Before that, the rate had been declining gradually since 2004 when it peaked at 8.5%. For women unemployment had previously been higher than for men, but in 2009 that difference disappeared due to the more limited increase in female unemployment. In contrast to the situation for men, the unemployment rate for women is substantially below the levels observed in the first half of the

decade, when rates of close to 10% were regularly recorded (Chart 69).

The overall EU unemployment rate stood at 8.9% in 2009, but with notable differences across Member States. Rates of 10% or more were recorded in Hungary (10.0%), Ireland (11.9%), Slovakia (12.0%), Lithuania (13.7%), Estonia (13.8%), Latvia (17.1%) and Spain (18.0%). In contrast, the Netherlands recorded the lowest unemployment rate, at 3.4%, while Austria also had a rate below 5%.

While the unemployment rates of men and women are now practically the same at EU level, there are considerable differences across Member States

(Chart 70). In Greece the unemployment rate of women is much higher than that of men, with a difference of more than 6 percentage points. In addition, in the Czech Republic, Italy, Luxembourg, Portugal and Slovakia the unemployment rate of women is more than 1 percentage point above that of men. However, in several Member States it is the other way around with unemployment rates of men being higher than for women in 2009. This is notably the case in the Baltic States and Ireland where the difference is more than 6 percentage points. These Member States were the ones most severely hit by the recent economic crisis, which particularly affected industries dominated by male employment.

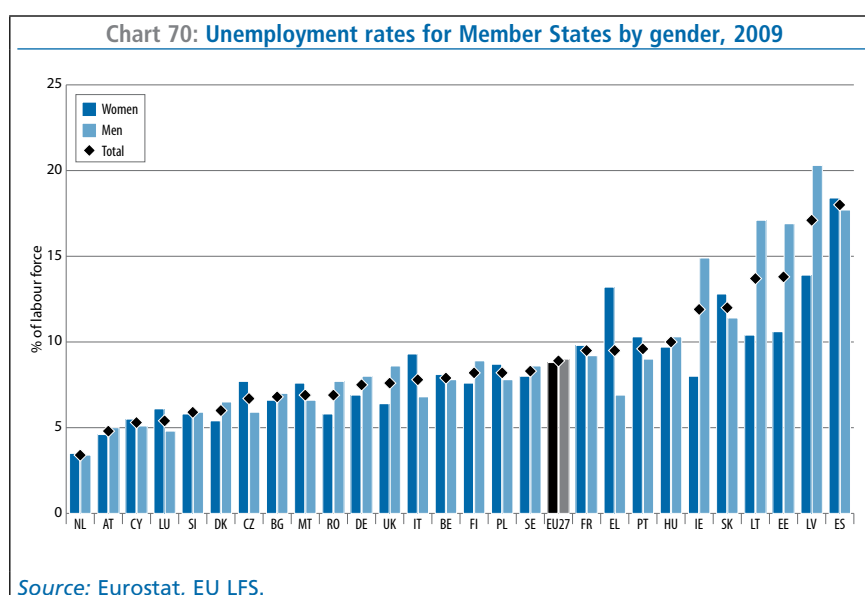
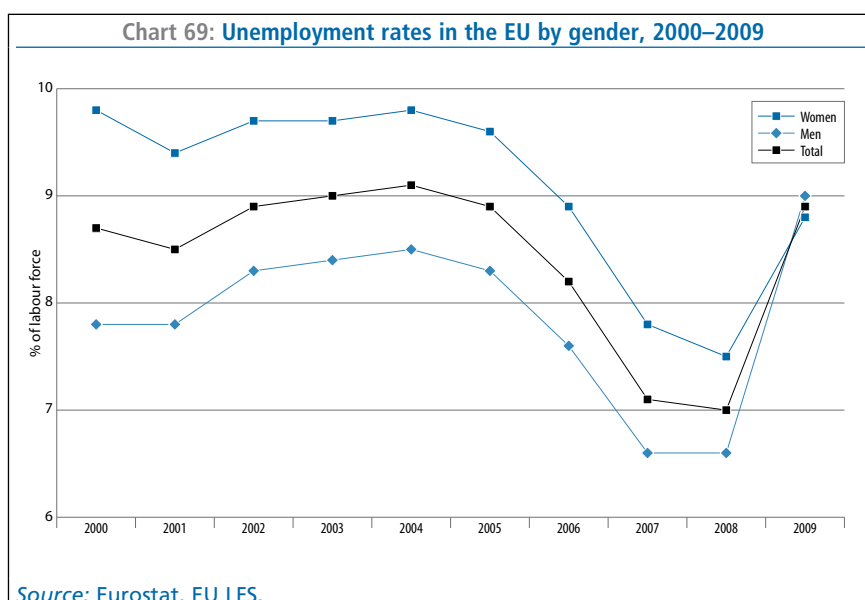
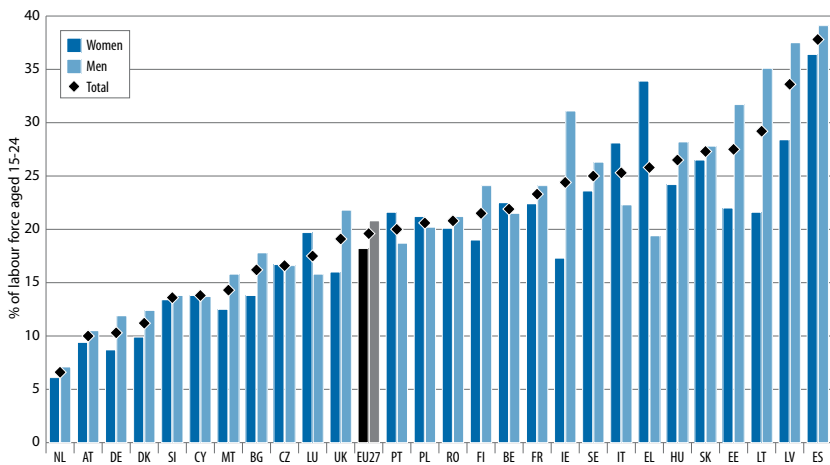


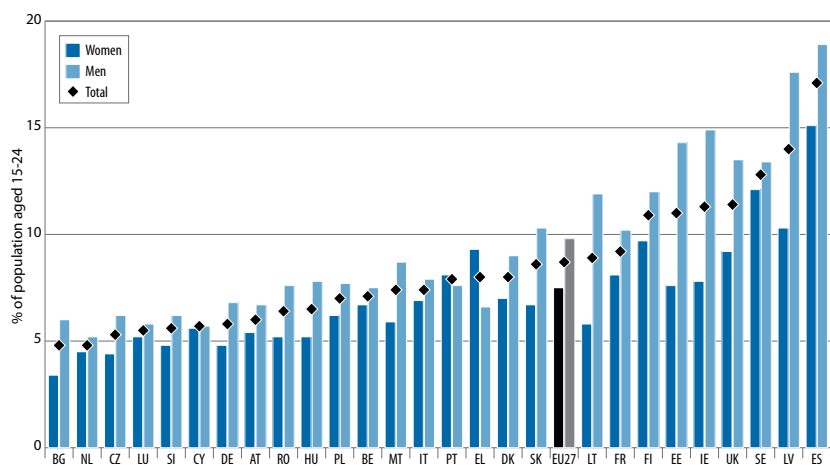
Chart 71: Youth unemployment rates for Member States by gender, 2009



Source: Eurostat, EU LFS.

The labour market situation of young people remains a serious concern, with this group being particularly vulnerable in their initial steps on the labour market. In 2009, the EU youth unemployment rate (i.e. the share of unemployed among the labour force in the 15-24 age group) was 19.6% - about twice that for adults aged 25-54, and more than 4 percentage points higher than in 2008. In several Member States, the problem seems particularly severe, with youth unemployment rates of 25% or higher in the Baltic States, Greece, Hungary, Italy, Slovakia, Spain and Sweden in 2009 (Chart 71).

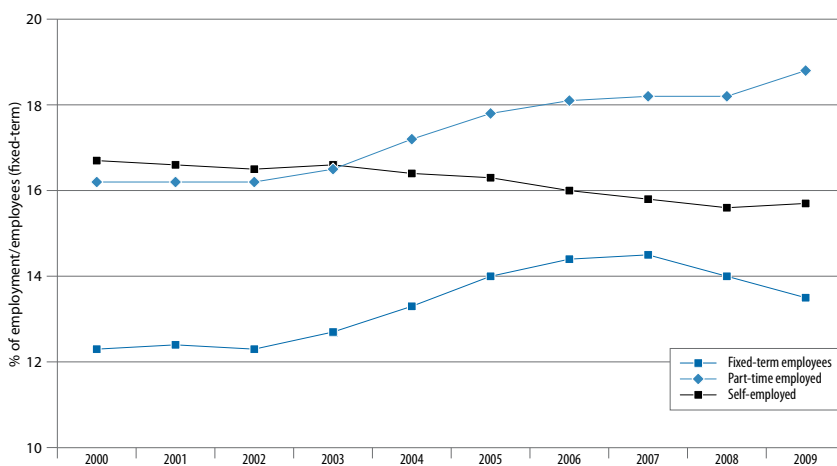
Chart 72: Youth unemployment ratio in the Member States, 2009



Source: Eurostat, EU LFS.

The particularly high unemployment rate for young people partly reflects the fact that figures for unemployment rates are determined relative to the labour force (those who are either employed or unemployed). Since many young people are in education, and often do not appear as part of the labour force (although they may do where students study and work at the same time), this rate can be perhaps misleadingly high as well as difficult to compare across Member States. An alternative or complementary measure, which allows us to gain a fuller understanding of the labour market situation for young people, is the youth unemployment *ratio* (i.e. unemployed people aged 15-24 relative to the total population of the same age).

Chart 73: Part-time and fixed-term contracts, and self-employment in the EU, 2000-2009



Source: Eurostat, EU LFS.

In 2009, on average almost 9% of all people aged 15-24 were unemployed in the EU-27. Again Spain has the highest share at more than 17% but the unemployment ratio was also relatively high in Estonia, Finland, Ireland, Latvia, Sweden and the United Kingdom, all with shares of more than 10% (Chart 72). In the case of Belgium, Greece, Hungary, Italy, Portugal, Romania and Slovakia, the unemployment *ratios* give a less negative picture than the unemployment *rates*, with ratios lower than the EU average while the unemployment rates are considerably higher. The opposite is true for Ireland, Sweden and the United Kingdom however, where the *ratio* figures suggest that the labour

market situation of young people is relatively more serious than suggested by the unemployment rates. The picture regarding gender is also clearer if ratios are considered - Greece is then the only country where unemployment for young women is substantially higher than for young men.

5.2.4. Contractual arrangements

In 2009, almost 19% of those in employment in the EU were working part-time (Chart 73) – a share that was up compared to the year before, after having been more-or-less stable in recent years. Less than 14% of employees had a fixed-term contract in 2009, the share having decreased by about 0.5 percentage points per year since 2007, following a steady rise between 2002 and 2007. The share of temporary workers follows developments in the economic situation quite closely. Finally, about 16% of workers were self-employed in 2009, which is more-or-less in line with the two previous years.

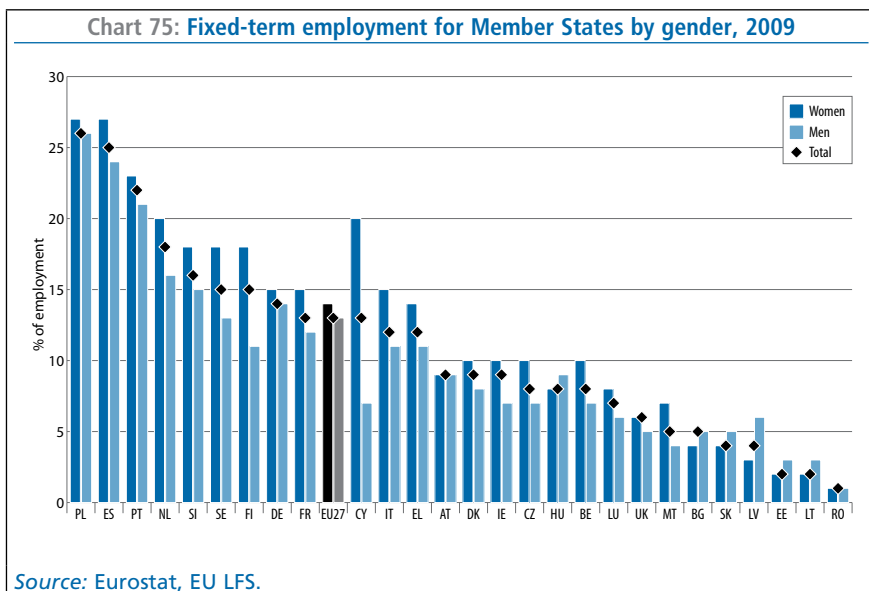
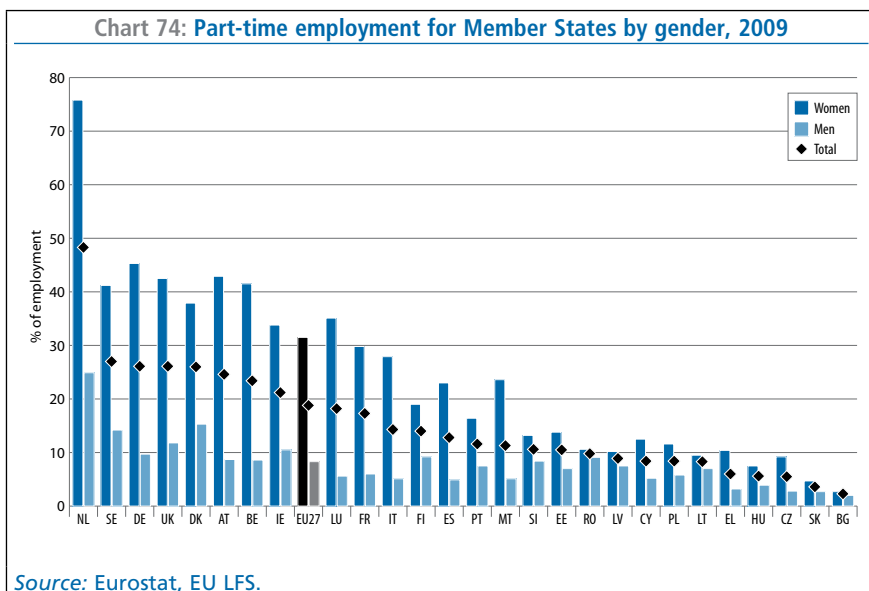
In a longer-term perspective, part-time employment has accounted for a significant part of the overall expansion in employment in the EU since 2000, even though full-time jobs still account for the majority of employment creation in this period. At the same time, permanent jobs account for the vast majority of overall employment growth since 2000, with fixed-term jobs accounting for a much smaller, but still important, share.

The incidence of part-time work varies considerably between Member States. Its share in total employment in 2009 ranged from 48% in the Netherlands, where the share of part-time employment is considerably higher than in any other Member State, to less than 4% in Bulgaria and Slovakia (Chart 74). Relatively high shares of 25% or more are found in Denmark, Germany, Sweden and the United Kingdom, but the overall share of part-time employment remains low in most of the new Member States

and Greece. This illustrates the strong geographical division in the use of part-time employment, it being relatively uncommon in southern and eastern Member States and relatively frequent in northern Member States.

Women commonly work part-time in a number of Member States. In the Netherlands, more than 75% of female workers did so in 2009, while 40% or more did so in Austria, Belgium, Germany, Sweden and the United Kingdom. For men part-time work is relatively uncommon, accounting for more than 10% of male employment only in Denmark, Ireland, the Netherlands, Sweden and the United Kingdom.

Fixed-term contracts are relatively common in Spain and Poland, where 25% or more of employees had such a contract in 2009. In contrast, temporary work accounts for less than 5% of employees in Romania, Slovakia and the Baltic States. Fixed-term contracts are more frequent among female than male employees in most Member States, although the average difference at EU level is limited. In Cyprus the share of fixed-term contracts for women was 20% in 2009 while, for men, it was only 7.5%. Finland and Sweden also displayed considerably higher shares of fixed-term contracts among women as compared with men (Chart 75).



6. SUMMARY AND CONCLUSIONS

The unprecedented crisis in global financial markets which gathered pace in autumn 2008 led to the most severe recession since the Second World War, affecting the wider EU economy and strongly impacting on its labour markets. Indeed, the crisis has wiped out much of the steady gain in economic growth and reduction in unemployment witnessed over the last decade – EU GDP fell by 4.2% in 2009, industrial production dropped back to the levels of the late 1990s and 23 million people - or close to 10% of the economically active population - are now unemployed.

The EU and its Member States reacted promptly to the worldwide financial and economic crisis, taking action to prevent a meltdown in the financial market in autumn 2008, and then agreeing, in December 2008, to put in place a European Economic Recovery Plan (EERP) - a €200 billion comprehensive, coherent and coordinated recovery package - to arrest the pace of the downturn and create the conditions for a recovery. At EU-level, structural reform measures (which are a central part of the EERP) have included, inter alia, measures aimed at supporting the functioning of the labour market and social policies aimed at supporting household purchasing power.

Despite the measures taken to mitigate the impact of the crisis, EU labour markets have suffered a strong correction, although the picture varies across Member States. For many it has led to a substantial increase in unemployment, and potentially in long-term unemployment, although in a number of countries job losses have been rather restrained to date, especially compared to certain of the EU's global competitors. The latter reflects, in particular, the strong recourse to increased internal flexibility (flexible working time arrangements including shorter hours or temporary

partial unemployment, temporary closures, etc.) coupled with nominal wage concessions in return for employment stability in some sectors, all of which appear to have prevented, or at least delayed, more significant mass dismissals in certain Member States. Overall, the more moderate increase in the unemployment rate in the EU compared to the US reflects a greater willingness in several Member States to adjust to falls in demand by reducing hours worked rather than the number of workers in employment, most notably in Germany. The more muted fall in employment has, however, been secured at the expense of productivity, although this has now started to recover.

The negative impact on employment became more manifest in 2009, with particularly marked employment losses over the first half of the year. By February 2010 the EU unemployment rate had risen to its highest level in a decade (9.6%). Within the EU, Member States such as the Baltic States, Ireland, and Spain have undergone wrenching adjustments in their labour markets, in part linked to the collapse of construction booms or property bubbles.

Males, the young, migrants, the low-skilled and those with short-term contracts have been most affected by the economic downturn, and have experienced the greatest increases in unemployment. With the exception of men, these are traditionally the most disadvantaged groups in the labour market, and the current downturn has made their relative situation even worse. This underlines the need to further address the issue of segmentation in the EU labour market, notably with respect to young people.

Economic growth has now resumed in the EU, with positive GDP growth being recorded in the final quarters of 2009 and early 2010, although the recovery remains fragile. Although it has now been a year since the EU economy started to recover from

deep recession, it may take some time yet before the fragile pick-up in economic activity begins to reverse labour market trends. However, the labour market situation in the EU is now showing more consistent signs of stabilising, as evidenced by recent data indicating that unemployment in the EU is levelling off or even starting to fall. Demand for new workers, as indicated by the EU job vacancy rate, finally shows signs of picking up (although remaining well down on pre-crisis levels), and while companies still announce more job losses than gains, the losses are substantially fewer than in previous months. Furthermore, firms are becoming more optimistic about employment prospects and consumers' unemployment fears are easing.

Even though the 'great recession' which had stalked the global economy has now bottomed out and growth has returned, and despite positive signals in several countries' labour markets, a lot of uncertainties remain. According to the latest European Commission forecasts, the EU economy is still fragile, although recovering at a faster pace than envisaged in early 2010, and the labour-market situation will remain weak.

Furthermore, job creation for the EU as a whole is likely to be subdued during the recovery, as adjustments to a rise in economic activity are likely to come initially through a reversal of the widespread reductions in working hours, as witnessed already in many Member States. Indeed, signs point to substantial labour hoarding during the crisis, given that most of the adjustment initially came through reductions in productivity rather than employment losses, which led to significant increases in real unit labour costs, although these have recently eased off. The European Commission spring forecasts expected employment growth at -0.9% for 2010 and to improve to only 0.3% in 2011, while the unemployment rate was foreseen to average 9.8% in 2010 and to remain at 9.7% in 2011, only marginally down on 2010. The latest

interim forecast released in September, however, reports that stronger than expected economic recovery in the EU in 2010 could lead to the labour market performing somewhat better this year than expected at the time of the spring forecast.

Given these forecasts, there is still a need to support the labour market and short-term aggregate demand until the recovery has taken a firmer hold. Key challenges for the EU and its Member States are linked to the balance and sequence of crisis exit strategies, such as the timing of withdrawal of major policy measures. This will be crucial to supporting further economic growth and employment. Moreover, minimising the persistence of difficult labour market conditions during the recovery and beyond should be made a priority; this increases the need for labour market policies aimed at preventing long-term unemployment and helping people to remain in the labour force and find a job.

Finally, even in these turbulent times, it is still worthwhile to recall the longer-term picture and highlight the progress that has been made in European labour markets over the last decade. Despite the recent setback brought about by the crisis, employment in 2009 was still up almost 12.5 million, or 6%, on the level in 2000.

Nevertheless, it is now clear that the Lisbon and Stockholm employment rate targets set at the beginning of the decade will be missed. In 2009 the overall EU employment rate averaged 64.6%, down from 65.9% a year earlier and hence increasing the shortfall in relation to the Lisbon target of 70% to 5.4 percentage points.

At the same time, the employment rate for women declined to 58.6%, some 1.4 percentage points short of the target of 60%, but in contrast that for older people increased slightly to 46%, although still 4 percentage points short of the target of 50%. However, on the positive side, these employment rate figures represent underlying increases of 2.4, 4.9 and 9.1 percentage points respectively in the overall, female and older workers' rates of 2000, a not insignificant achievement.

In this context, the recently launched EU strategy for the next decade, the Europe 2020 Strategy, which aims to support recovery from the crisis and provides a vision of Europe's social market economy for the 21st century, will have the objective of further raising employment as a key element of its overall aim of achieving smart, sustainable and inclusive growth. In this regard a headline target has been set of achieving a 75% employment rate for the population aged 20-64 by 2020.

In order to raise employment so as to reach the 75% target, Europe needs, first and foremost, to improve the functioning of its labour market, based on the flexicurity approach. Key objectives will be to lower the risk of structural unemployment, reduce the persistent levels of labour market segmentation and increase the low levels of voluntary transitions, including low geographical mobility. But this is not enough. Europe has also to count upon a skilled, engaged and healthy workforce, capable of adjusting to technological change and new patterns of work organization. In this regard, investment in anticipation of skills needs, matching and guidance services, and education and training

systems is a basic foundation to raise productivity and competitiveness, ultimately leading to employment growth.

To reach the 75% target, it will be especially important to raise the employment rates of women and older workers, which offer marked room for improvement. Gender equality policies including closing the pay gap and active ageing strategies making it easier and more attractive for older people to work are key to this. Efforts to raise the quantity and quality of labour supply need nonetheless to be combined with policies supporting job creation and labour demand. It is not enough to ensure that people remain active and acquire the right skills to get a job. Efforts need to be stepped-up to ensure that recovery is based on job-creating growth. Hence, there is a need to set the right framework conditions to create more jobs, namely in companies operating with high skills and R&D intensive business models, and to promote entrepreneurship and self-employment. Last but not least, stronger efforts need to be made to raise quality in work. Rather than a trade-off between quality and quantity of employment, evidence shows that overall high levels of job quality tend to be associated with high levels of labour productivity and participation in employment.

An "Agenda for new skills and jobs" will be the EU flagship initiative to help Europe reach full employment. As such it announces a number of EU actions addressing challenges related not only to the labour market functioning but also to labour supply and demand, to be enacted through a mix of policy instruments available at European level.

On the path to recovery: a review of labour market measures

1. INTRODUCTION

Since the onset of the global downturn, policy makers across the European Union (EU) have been concerned with mitigating its adverse spill-over effects to labour markets. This is because previous crises have shown that sharp output declines usually take 2 to 3 quarters to be transmitted into noticeable rises in unemployment, reductions in demand for new workers, and overall contractions in employment.

This chapter assesses to what extent recent labour market recovery measures taken in the different Member States have helped to alleviate the adverse spill-over effects of the global downturn in output on labour markets in the EU. This assessment has been made with a view to reinforcing existing labour market measures, preparing an orderly phasing-out of labour market recovery measures, and strengthening employment policy's capacity to deal with future crises.

The following section provides the framework for the analysis, while sections three to five provide cross-country comparisons and assessments of these measures. The measures cover policies aimed at maintaining employment, creating jobs, promoting mobility, upgrading skills, matching labour market needs, increasing access to

employment and supporting households. The sixth section provides an overall assessment of the crisis-related measures using micro-model simulations. The subsequent section explores the modalities under which these measures have to be phased out and explores the policies to be phased in, while the last section draws some conclusions.

It should be noted that this analysis only focuses on the direct labour market effects of the crisis-related employment measures. It does not attempt to identify their indirect effects, such as on aggregate demand, the fiscal stance, and international competitiveness⁽¹⁾. Nor does the analysis examine the causes of the economic downturn, which are extensively addressed elsewhere⁽²⁾.

As Chapter 1 of this Report has shown, the Member States face significantly different situations and constraints. Some, including Ireland, Spain, Latvia and Lithuania, have been particularly hard hit by the crisis and experienced substantial reductions in employment and increases in unemployment, while in others, including Belgium and Germany, the loss of

jobs has been relatively limited. Nevertheless, an assessment of the crisis-related labour market policies of all Member States is of common interest given their commitment to the common EU goal of creating more and better jobs for all.

2. A FRAMEWORK FOR ANALYSIS

2.1. The policy context

With the onset of the economic crisis, Member States sought to respond in a coordinated and mutually reinforcing way to its adverse effects. Thus the European Union launched the comprehensive European Economy Recovery Plan (EERP)⁽³⁾ in December 2008 covering reforms to the financial sector and actions to sustain demand, boost investment, consolidate fiscal policy, and retain and create jobs.

Labour market policies form an important part of the EERP and, in line with the EU's long term strategy of labour market reform, the overall key priorities are to⁽⁴⁾:

- maintain employment, create jobs and promote mobility,

(1) For instance, labour market measures may boost aggregate demand via their impact on consumer confidence. This increase in aggregate demand may then lead to an increase in labour demand.

(2) See for instance European Commission (2009a) for more details on this.

(3) See European Commission (2008a).

(4) European Commission (2009b).

- upgrade skills and match labour market needs,
- increase access to employment and support households.

European financial instruments, including the European Structural Funds and the European Globalisation Adjustment Fund, are also used to support the recovery efforts of Member States.

The relationship between crisis-related labour market policy measures and other measures functions in several ways.

Firstly, important synergies exist between policies that affect aggregate demand and labour market policies. Indeed, while aggregate demand has a direct effect on labour demand, labour market policies can support aggregate demand by reinforcing confidence by increasing (expected) employment opportunities and sustaining the (expected) income of those at risk of losing their job, thereby reducing uncertainty.

Secondly, in the current context of high public debt in some Member States, fiscal sustainability serves as a binding constraint on labour market initiatives. At the same time, however, measures that can increase employment levels will strengthen the tax base, reduce some of the social security costs, and thus contribute to the consolidation of public finances.

Thirdly, tackling the cyclical rise in unemployment can have important effects on potential long-term growth as persistent unemployment can negatively affect the re-employability of the unemployed through loss of skills and by discouraging them from looking for work.

2.2. A set of evaluation criteria

A wide range of crisis-related labour market measures have been implemented by the Member States. Experience suggests that discretionary measures will contribute in the most efficient and equitable way to stabilisation of employment and cutting social exclusion, without compromising long-term employment and growth potential, if they supplement automatic stabilisers⁽⁵⁾. There is also a general consensus since the European Employment summit of May 7th 2009⁽⁶⁾, that such discretionary measures should be implemented in a temporary, timely, targeted, fair and co-ordinated way, in line with flexicurity principles⁽⁷⁾ and the country-specific recommendations for growth and jobs that were identified under the Lisbon Strategy (see Box 1).

Temporary: The crisis-related measures should have a clear time limit so that they do not compromise on-going structural reforms by introducing inappropriate incentives. The phasing out of the labour market recovery measures should be guided by the (expected) developments in output, taking into account the Member States' individual constraints and starting positions. Nevertheless, some measures that have a positive impact on the structural working of the labour market, should be maintained and reinforced, such as training, activation and other flexicurity policies

(5) The term 'automatic stabilisers' is used to cover the effect of changes in demand and output on government fiscal transfers – notably unemployment benefits – on which expenditure increases automatically when unemployment rises, and which therefore helps to sustain demand in the economy. As demand recovers during an upturn, unemployment benefit transfers fall as unemployment declines.

(6) For more details concerning this summit, see <http://ec.europa.eu/social/main.jsp?catId=88&langId=en&eventsId=173&furtherEvents=yes>

(7) See <http://ec.europa.eu/social/main.jsp?catId=102&langId=en>

that facilitate job reallocation and worker re-skilling.

Timely: A key lesson from evaluations of active labour market policies (ALMP)⁽⁸⁾ is that labour market measures have to be linked in a timely manner to developments in the rest of the economy so as to avoid 'hysteresis' effects⁽⁹⁾ when actions are unduly delayed. These can have an unfavourable impact on the future employability of the unemployed, due to skill losses, declining motivation to search for work or reduced mobility.

Targeted: Measures should be well-targeted in order to improve their effectiveness and keep their fiscal cost under control. In this context, targeting the young, early school leavers, the low-skilled and migrants is particularly important as there is strong evidence that 'scarring' effects – whereby current unemployment increases the risk of being unemployed in the future or finding only low-wage jobs – tend to be more pronounced for these groups⁽¹⁰⁾.

Coordinated: Although the choice of recovery measures is a matter for the Member States, these measures should be well-coordinated where possible at European level so that they support each other and avoid creating competition concerns in the single market.

Fair: The measures should be designed in a fair way so that the adjustment burden is equally shared over the entire labour force and further labour market segmentation is avoided.

(8) See Employment in Europe (EiE) 2006 Report, Chapter 3.

(9) Hysteresis in the labour market, as applied in this chapter, refers to the phenomenon that in an economic downturn an individual who becomes unemployed loses both his/her skills and the motivation to search for a job while employers may use time spent in unemployment as a screening device so that when the economy recovers the workers affected will not get reemployed. See Box 10 for more details.

(10) See for instance Skans (2004) and Scarpetta et al. (2010).

Box 1: Flexicurity in times of crisis

Flexicurity is an integrated strategy involving active labour market policies, lifelong learning, modern labour laws and social security systems, which facilitates transitions during the life cycle and is conducive to job creation and social cohesion⁽¹⁾.

In times of economic downturn, the capacity of employment and social policies to create more and better jobs for all is put to the test. The way in which flexicurity principles should be applied is laid down in the conclusions adopted by Council of the European Union on the management of the economic downturn⁽²⁾, as set out below:

- Maintaining employment wherever possible, for example through helping companies choose alternatives to redundancy such as flexible working patterns, temporary adjustment of working time where applicable, and other forms of internal flexibility measure within companies (such as for instance time accounts, time credit, sabbatical leave etc.)
- Better anticipation and management of restructuring could limit the negative effects of the economic downturn by encouraging information sharing and consultation of workers, investing in human and physical resources (particularly through education and training), and improving the forecasting of future developments.
- Creation of a better entrepreneurial environment through a labour market which ensures the necessary flexibility and security, benefit systems which provide work incentives, appropriate levels of non-wage labour costs especially for the low-skilled and other vulnerable groups, as well as through better regulation and reduction of the administrative burden for businesses.
- Enhancing and improving activation measures and providing adequate income support and access to quality services to people who are worst hit by the crisis.
- Increased investment in human capital, especially retraining, skill upgrading and labour market needs-matching, including for people working part-time or in other flexible forms of employment and for low-skilled workers.
- Improving the effectiveness of public employment services in order to be able to tackle increased levels of unemployment, while adhering to the principle of gender mainstreaming and to the need to reduce segmentation in the labour market.

(1) See EiE 2007, Chapter 3.

(2) See Council of the European Union (2009).

While a clear set of criteria is available to assess the crisis-related labour market measures, there are nevertheless difficulties in measuring the so-called deadweight losses⁽¹¹⁾, substitution⁽¹²⁾ and displacement⁽¹³⁾ effects.

Assessment is also complicated by the fact that, in undertaking such an analysis, it is not always clear whether the underlying shock is a demand or supply shock, whether the shock is general or sector-specific, or whether the shock is permanent or temporary. Depending on the nature of the shock, a measure's purpose can range from retaining jobs (in the case of a temporary demand shock) to intensifying the reallocation of labour (in the case of

a permanent sector-specific shock). Moreover, adjustment in the labour market may occur over different dimensions (i.e. labour income and volume) for which the welfare implications are not always easy to assess. Finally, when assessing discretionary measures, account must also be taken of the fact that they may be subject to differing perception, decisions and lags in implementation, and that changes are not necessarily automatically reversed when economic conditions change.

3. MAINTAINING EMPLOYMENT, CREATING JOBS AND PROMOTING MOBILITY

Several measures have been introduced to encourage employers to support the retention or hiring of workers, including modifications to (or introduction of) temporary short-time working arrangements, wage subsidies, non-wage cost reductions, expanding public sector employment, and self-employment. A number of these arrangements are relatively new, and the scale of their adoption is notably greater than in the past, and hence the treatment of these measures in this section is particularly extensive.

The social dialogue played an important role in concluding agreements on crisis response, see Box 2.

(11) Deadweight losses refer to jobs that would have survived the downturn without any public subsidy i.e. the public expenditure is effectively wasted.

(12) Substitution effects refer to the replacement of jobs for non-targeted groups by jobs for targeted groups because relative wage costs have changed.

(13) Displacement effects refer to the reduction in jobs elsewhere in the economy because of changes in competition.

Box 2: Social dialogue in times of crisis

A variety of negotiated responses to the crisis exist in the European Union. A main characteristic of these schemes is that they often involve government support programmes in various forms such as subsidising short-term working arrangements, wage subsidies, etc; see for instance Glassner and Keune (2009).

Levels of successful conclusion of crisis-response agreements at sector and at company level vary both between Member States and between general economic sectors (manufacturing sectors versus private service sectors), reflecting institutional differences in collective bargaining arrangements, the varying impact of the crisis on different economic sectors and the implementation of specific public policies, notably short-time work schemes, which can act as a catalyst for negotiations. See Carley and Marginson (2010).

Crisis response agreements were concluded at different speeds, see Carley and Marginson (2010). Crisis-response agreements were reached at a relatively early stage in six Member States. In Belgium, social partners concluded a collective agreement for 2009-2010 in December 2008, while in the Netherlands, the government and social partners reached a wide-ranging agreement on crisis-related measures in October 2008. In March 2009, the Polish social partners reached a bipartite agreement on a package of anti-crisis measures and in July 2009 the French social partners reached a national cross-sector agreement on managing the employment consequences of the economic crisis. In Estonia in March 2009, a tripartite accord was reached, setting out principles for maintaining employment levels, while in Latvia a tripartite accord was concluded in June 2009, with the aim of reducing the public sector deficit.

In Slovakia, parallel governmental accords with the social partners were signed in early 2009. In Lithuania, the conclusion of an agreement in October 2009 was preceded by months of sustained trade union opposition to government austerity measures. In Spain, the social partners reached a three-year framework deal only in 2010. In the Czech Republic, a tripartite agreement on a set of 'short-term' crisis response measures was reached in February 2010. In Bulgaria, a tripartite agreement on a package of anti-crisis measures was signed in March 2010. In Ireland, a new protocol affirming the importance of maintaining employment was agreed in June 2010.

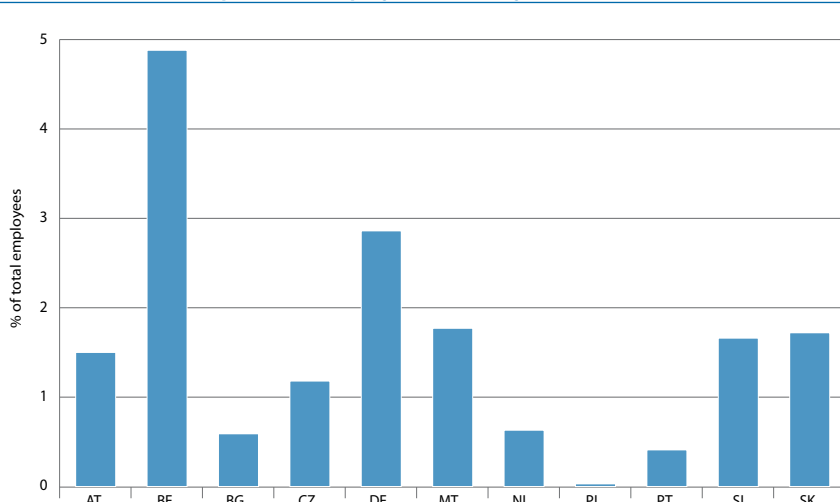
3.1. Short-time working arrangements⁽¹⁴⁾

Chart 1 shows the number of employees taking part in STWA as a percentage of total employment in a selected group of Member States in 2009. In all Member States with the

exception of Belgium the share is below 3 percent. Germany has the second largest share. Behind these averages are some noticeable developments. In Germany the number of recipients increased from 39 000 people in May 2008 to more than 1 500 000 people in May 2009, while in Belgium the number of recipients

increased from about 87 000 people in July 2008 to a peak of 313 000 people in March 2009 after which it started to decline gradually. In Austria the total number of recipients rose from zero in August 2008 to more than 36 000 in June 2009, falling thereafter. A more modest increase is to be observed in the other Member States⁽¹⁵⁾.

Chart 1: Share of employees taking part in STW schemes (partial unemployment and layoff) – 2009



Source: Commission services. AMECO, LFS, OECD/EU questionnaire on employment and social policy in the economic downturn – 2010 update.

3.1.1. Scope and limitations

A short-time work arrangement (STWA) can be seen as a temporary reduction in working time intended to maintain an existing employer/employee relationship. It can involve either a partial reduction in the normal working week for a limited period of time (a partial suspension of the employment contract) or a temporary lay-off (zero hours' a week), in other words, a full suspension of the employment contract.

(15) Charts 11 to 18 in Annex 1 show the number (or stock) of recipients of short-time working allowance for nine Member States, while charts 19 to 25 show the new recipients of short-time working allowance for another six Member States. See also section 2.2.4 of Chapter 1 of this report.

(14) This section is based on Arpaia et al. (2010).

In both cases, however, the employment contract remains in force, and is not broken. See Box 3 for a summary of the main institutional characteristics of STWAs.

The objective of STWAs in times of economic crisis is twofold.

Firstly, it enables companies to reduce labour costs in the short-term and to quickly adjust labour inputs to cyclical fluctuations in labour demand by reducing working time for the existing workforce, rather than resorting to layoffs and related costly and lengthy dismissal procedures, especially in highly-regulated labour markets. Moreover, it enables companies to retain skilled workers, thus avoiding the costs of recruiting and training new workers when demand

recovers, and enhances employee morale.

Secondly, to the extent that they prevent lay-offs, such measures spread the adjustment burden over all of the workers rather than concentrating the impact on a few, possibly more vulnerable workers, who might otherwise risk becoming inactive in the long-term.

Two main kinds of risks are associated with STWA schemes.

Firstly, they could lead to deadweight costs as they may encourage employers to enrol in such schemes, even if no lay-offs are planned (windfall profits being sought by companies). This may lead to excessive take-up and become an undue financial burden

on national unemployment insurance schemes, which are the usual financing instrument in the EU. In the long run, taxes or contribution rates would have to be increased - inducing higher wage costs and loss of competitiveness. This is in contrast with the USA, where the financing of STWA is generally privately arranged and insurance-based.

Secondly, STWA could prove ineffective in saving jobs permanently. The jobs kept alive for some time could eventually prove to be unviable and ultimately end in lay-offs. In the meantime, more viable jobs held by non-beneficiaries of such schemes – who would typically be new entrants to the labour market or small and medium-sized enterprises (SME)'s – might be exposed to effective 'displacement'.

Box 3: Institutional characteristics of short-time work

There is considerable variety in the institutional arrangements concerning short-time work programmes across Europe.

In France, Belgium and Luxembourg, public short-time work (STW) and temporary lay-off schemes are usually known as 'partial' or 'temporary unemployment', sometimes with reference to the specific application or circumstances (e.g. economic, seasonal, and technical). These schemes should be distinguished from voluntary working time reduction on an individual or collective basis (through time accounts, time credit, sabbatical leave, etc.⁽¹⁾) or from 'part-time unemployment', which indicates a situation where (partially) unemployed jobseekers would prefer to work longer hours or full time, but can only find part-time work and receive various forms of direct financial support for the incurred loss of earnings.

In Denmark, STW is designated as 'work sharing'. This indicates a reduction in working time intended to spread a reduced volume of work over the same number of workers to avoid lay-offs. As such, it is to be distinguished from 'job sharing', which refers to a voluntary arrangement whereby two persons take joint responsibility for one full-time job.

In the Netherlands, short-time work support was temporarily offered up until the end of March 2009 in order to respond to the economic crisis. Since then, companies experiencing temporary financial difficulties may apply for partial unemployment for their workforce.

Austria and Germany simply refer to such schemes as 'short-time work', while Italy stresses the aspect of income support in its STW scheme, which is called the Wage Supplementation Fund (CIG⁽²⁾).

In countries such as Estonia, companies and employees may agree on STW arrangements, however, without public financial support.

Table 1 summarises the maximum duration and level of STW compensation and unemployment benefit before the crisis measures.

In most of the other Member States (Estonia, Greece, Cyprus, Malta and Sweden) which do not have government subsidised STW arrangements to respond to drops in labour demand caused by an economic downturn, insured workers can get support through the regular unemployment scheme, or receive training grants for people working reduced hours.

(1) IAB (2009) observes that in Germany STW accounted for only 25% of the total reduction in average hours from 2008 to 2009, while reductions in the volume of paid over-time work and debiting working-time accounts were both responsible for a 20% reduction in hours (other leave covered by sick leave et al.).

(2) La cassa integrazione guadagni.

3.1.2. Main changes in response to the crisis

Table 2 summarises the main changes in the short-time working arrangements across the Member States since the onset of the economic crisis.

In the Member States where STW arrangements already existed before the crisis, the practical arrangements concerning these schemes were temporarily modified with the onset of the crisis (i.e. in Belgium, Denmark, Germany, Ireland, Spain, France, Italy,

Luxembourg, Austria, Portugal and Finland.). These modifications are primarily aimed at lowering the participation costs for employers and/or increasing the level of financial support by: extending the eligibility duration; opening the arrangement to more participants; simplifying the enrolment procedure.

In nine Member States (Bulgaria, Czech Republic, Latvia, Lithuania, Hungary, Netherlands, Poland, Slovenia and Slovakia) new public support schemes for STWAs have been

temporarily introduced since the onset of the downturn. A feature of most of these arrangements is that public support for short-time work is combined with training. It remains optional in a majority of Member States but in Czech Republic, Hungary, Netherlands, Portugal and Slovenia, people in short-time work are required to undertake training. In Belgium, Germany, Lithuania, Hungary, Malta, Austria, Poland, Portugal, Slovenia and Finland, training for those in short-time work is government-subsidised.

Table 1: Maximum duration and level of STW compensation and UB before crisis measures

Country	UB maximum duration	STW maximum duration	UB level	STW compensation
Austria	30 weeks; more for older workers; to 156 weeks or up to 209 weeks for workers participating in specific labour market policy activities	3 months	55% of average net reference income over a year. The total benefits may not exceed 60% of reference income (80% if dependants)	Share of UB (minimum 0.125% of daily rate of UB per working hour lost)
Belgium	Unlimited	4 weeks if full suspension of work; 3-12 months if partial suspension	58-60% of reference wage with ceiling during the first year	Share of UB + supplements possible by employer or sectoral fund
Denmark	4 years	13 weeks (not continued). Prolongation possible at company level to 26 weeks	90% of previous earnings after deducting 8% social security contributions, with maximum and minimum ceiling	Eligibility to UB
Finland	500 days (5 days /week; 100 weeks) after a 7-day waiting period	36 months	Earnings related benefit: basic benefit plus 45% of daily reference earnings (DRE) in excess of the basic benefit until € 102.60; plus 20% of DRE in excess of € 102.60 (102.60= 90 * basic benefit / 21.5)	Eligibility to Adjustment UB: income-related basic UB (€ 25.63 in 2009) plus 45% of the difference between the daily wages and that basic amount
France	23 months (36 months for older workers aged 50+)	6 weeks, up to 600 hours per year in total	75% of gross reference wage for low incomes and 57% for high incomes	50% of gross hourly wage (minimum 4.42 € per hour) by employer refunded € 2.13-2.44 per hour by state depending on company size
Germany	12 months (up to 24 months for older workers)	6 months. Extension by ordinance is possible up to 24 months in case of exceptional situation on the labour market	60-67% of reference wage with ceiling	Share of UB + supplements possible by employer
Ireland	12 months (9 months if reduced contributions)	Same conditions as UI	Flat rate payments for each day of unemployment	Eligibility to UB (Jobseeker's Benefit)
Italy	8 months (12 months for unemployed aged over-50)	CIGO: 12 months (up to 24 months in specific areas of the Country)	60% of average gross earnings of last 3 months for first 6 months, 50% for 7th month, 40% for following months, with threshold	80% of last wage with upper threshold
Luxembourg	365 calendar days in a 24-month period	6 months over 12 months reference period	80% of average wage during 3 months preceding unemployment; 85% with dependent children (max. 250% of minimum wage)	Eligibility to UB
Portugal	65% of average salary of 12 months before unemployment (maximum 3 times the Social Support Index)	STW: 6 months Suspension of work: 18 months	270 if less than 27 years old, up to 900 days if 50+	2/3 of normal wage (maximum 3 times the minimum wage)
Spain	120 to 720 days, depending on contribution record	2 years	70% of reference earnings for max. 180 days, then 60% of reference earnings (average gross earnings over last 180 days) for the remaining period	Eligibility to UB
United Kingdom	182 days	Statutory Guarantee Pay: 5 workless days every 3 months UB: 13 weeks	£ 60.50 for a single person aged 25 and over or £ 47.95 per week for those aged 16-24	Eligibility to UB (Jobseeker's Allowance) + Statutory Guarantee Pay

Note: CIGO: Cassa integrazione guadagni ordinaria (Ordinary wage supplementation funds).

Table 2: Recent changes and new STW schemes in the EU Member States

Country	Already existing scheme		New STC scheme	(Changes) Eligibility/Coverage	(Changes) Duration	(Changes) Benefits to employees	(New) Link to training	Cuts in employer's SSC	More flexible procedures/WTO	Temporariness of changes
	Wage supplement through employer	Support by UI plus activation								
Austria	X			X	X		incentives	X		End 2010
Belgium	X			X	X	X	incentives	X		End 2010
Bulgaria			X			X				End 2009
Czech Republic			X			X	compulsory			2010
Denmark		X							X	30/04/2011
Finland		X			X	X				2011
France	X			X	X	X		X		Permanent/temporary (end 2010)
Germany	X			X	X		incentives	X	X	End 2010
Hungary			X			X	incentives/compulsory	X		Mid 2010
Ireland		X					incentives			2010
Italy	X			X			incentives			End 2010
Latvia			X				incentives			End 2010
Lithuania			X			X	incentives	X		No end date
Luxembourg	X			X	X		incentives	X	X	End 2010
Malta			X				incentives			
Netherlands			X			X	compulsory			01/04/2010
Poland			X			X	incentives			End 2011
Portugal	X						incentives			End 2010
Romania	X							X		End 2010
Slovakia			X					X		End 2010
Slovenia			X			X	compulsory	X		31/03/2010
Spain		X						X	X	End 2009
United Kingdom		X					No changes			

Note: STC: short-time compensation. For new STW schemes we look at: introduction of benefits for employees, training incentives and other extra incentives for employers. SSC: social security contribution. UI: unemployment insurance. WTO: working time organisation.

3.1.3. The effectiveness of STWA

This section addresses the issue of the effectiveness of STWA in stabilising employment. It begins with a brief overview of some findings reported in the research literature, and then reports on two in-depth studies: a case study for Germany, and an econometric analysis, using macro-data, for the EU as a whole.

STWA in the economic literature

A common conclusion of country specific studies is that STWA increases a firm's internal flexibility, while retaining the workforce attached to the firm (Abraham and Houseman, 1994).

For countries such as Belgium, France and Germany, lower external flexibility was compensated by working-hour adjustments. Yet the effectiveness of STW as a measure to increase the flexibility of working hours depends on substitution with other work-sharing mechanisms such as those introduced bilaterally between employees and employers (e.g. time accounts or sabbatical leave) or through government regulation (e.g. work sharing achieved through a reduction in legal working time).

The latter was the case in France, where the reduction of the legal working time offered companies a cost-saving opportunity to adjust working hours during the recession,

and therefore coincided with a decline in the use of partial unemployment ('chômage partiel'). Using statistical methods to examine firms' specific characteristics, Calavrezo et al (2009) found that, over the period 1996-2004, the introduction of the law on working time led firms to use shorter hours to increase the flexibility of the volume of hours worked. This has led to a gradual reduction in the use of 'chômage partiel', which has been mainly used by firms with more structural problems, but for shorter periods. More generally, STWA can only smooth out employment fluctuations when the standard hours worked are high enough for any reduction to have a significant effect.

During the recession of the 1970s there was a remarkable increase of German 'Kurzarbeit'⁽¹⁶⁾, mainly in the industrial sectors. Flechsenhar (1979) found that, following the slump in demand in the engineering sector, only 40% of the reduced volume of labour was absorbed by cutting jobs, and 60% by reducing working hours – two thirds of the working hour reduction being attributed to 'Kurzarbeit' – while, without the scheme, twice as many jobs would have been lost. Deeke (2005) showed that a high proportion of firms using 'Kurzarbeit' not only did not reduce their payrolls but even hired new staff, albeit with more flexible non-standard work contracts such as 'Mini-Jobs' or jobs on call. In fact, companies employing workers with flexible work contracts (e.g. temporary and part-time contracts or freelance arrangements) rely less on short-time schemes (Crimman and Wießner (2009)), which suggests that STWAs are a tool for enhancing internal flexibility (Deeke (2005)), especially when employment protection legislation (EPL) is tight. Where a proportion of workers are highly skilled, the propensity to draw on 'Kurzarbeit' is increased (Crimman and Wießner, (2009)), which is consistent with the view that firms tend to voluntarily hoard talented labourers, and save the costs of hiring highly-qualified staff, because of the specificity of human capital (Hart and Malley, 1996). Bach and Spitznagel (2009) show that, despite massive public funding, companies contribute to the cost of 'Kurzarbeit' since other fixed-wage costs (special payments for holidays or old-age and sickness provision, etc.) are not reimbursed. This limits any incentive for firms to use the scheme to seek windfall profits.

In contrast to the experiences reported in most studies on Germany, recent work on France is less positive about the effectiveness of STWA schemes in preventing lay-offs. Calavrezo et al. (2009) do not find evidence of a trade-off, but rather a positive relationship between redundancies

and STWA (taking into consideration companies with a minimum of 50 employees), which seem to complement each other in difficult times. Hence, extended use of STW schemes could be followed by higher lay-offs for economic reasons, a finding which seems also to be supported by simple correlation on the basis of German data, as described in the following sub-section.

The complementarity between public STWA and EPL in Europe

In European countries, short-time schemes and EPL work to complement each other. Tight employment-protection legislation smoothes out employment fluctuations, putting more emphasis on adaptation of working hours. With STWA, European firms are able to circumvent the restrictions imposed by firing costs by adjusting the numbers of hours worked per worker. In particular, it is the relative generosity of STWA as opposed to unemployment benefits, combined with notice delays and costly and unpredictable firing procedures, which leads firms to adjust hours in this way and workers to accept this as an alternative to lay-offs (Van Audenrode, 1994).

Severance payments⁽¹⁷⁾ have a two-pronged effect on employment contracts. On the one hand, unemployment benefits combined with one-off severance payments can make the lay-off option more attractive for workers (depending on their generosity). On the other hand, high firing costs can deter firms from laying people off.

On balance, preference may be given to STW when it comes to adjusting labour inputs. This implies that hours tend to be more flexible in countries where severance payments are high. A corollary of this is that, in countries with high legislative restrictions on lay-offs, in order to give firms an adequate margin of adjustment, the

rules for entering and exiting the short-time schemes should be less rigid than in countries with loose EPL. Even so, these restrictions clearly impose costs on firms. However, these are partly borne by the state in the form of income support for workers in short-time work (see Abraham and Houseman (1992)).

3.1.4. A case study: the impact of 'Kurzarbeitergeld' in Germany

The German Federal Labour Office publishes monthly data on employment performance such as the number of officially unemployed (ALO), the number of those employed subject to social contributions (SVP), and the number of people participating in 'Kurzarbeit' schemes (KUG - the German state supported STWA).

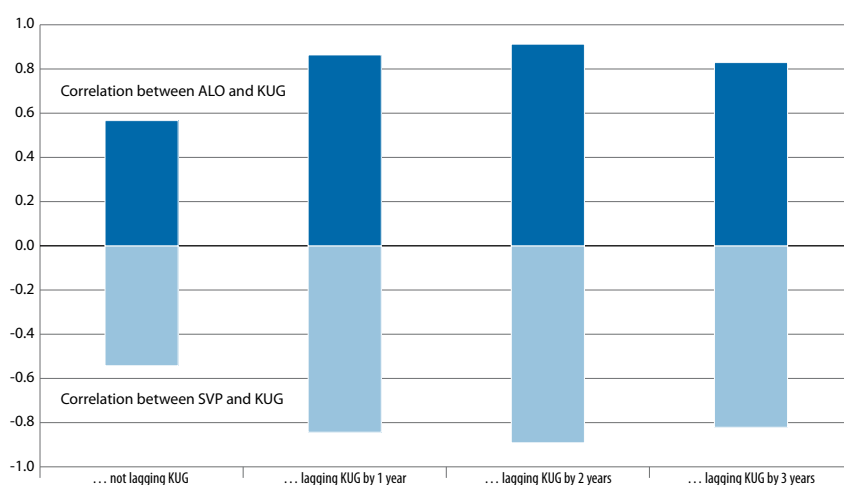
Data from 2005 through to August 2008 shows that in 'normal' periods the correlation between KUG and ALO is positive (0.57) and that between KUG and SVP negative (-0.54). These results offer no surprise. However, there appears to be a time lag between the take-up of KUG and the corresponding changes in the general labour market situation. This is because the correlations get much stronger if ALO resp. SVP were plotted against earlier KUG take-up instead of KUG of the same period (see Chart 2).

These findings seem to confirm less optimistic views of a rather complementary relationship between unemployment (lay-offs) and STWA scheme take-up, reviving Calavrezo's notion of high unemployment following on from STWA (Calavrezo et al, 2009, for France): STWA is being taken up immediately during a downturn while the labour market still needs time to adjust. In Germany, the 'period of full reaction' seems to be quite long - around two years - as the correlation between ALO resp. SVP and KUG gets weaker again after lagging KUG by more than two years.

(17) I.e. the reimbursements an employee receives when she/he leaves employment at a company.

(16) Kurzarbeit is the German STWA.

Chart 2: Correlation between unemployment (ALO) resp. those employed subject to social contributions (SVP) on the one hand and the number of people on Short-Term-Work Allowance (KUG) on the other hand (Jan 2005 - Aug 2008)



Source: Bundesagentur für Arbeit, own calculations.

These findings are suggestive of less optimistic labour market prospects in the short term, although it is still much too early to assess the impact of the crisis on employment.

3.1.5. An econometric analysis

The hypothesis that STW schemes reduce the variability of employment has been tested by Arpaia et al. (2010) using an equation in which the dependent variable is the annualised change in employment in the industry sector, and the explanatory variables are one lag of

the dependent variable itself, the change in the industry's value added, a dummy signalling the 2008-2009 recession, a variable that combines this dummy with another dummy signalling countries with STW schemes, constant and country-fixed effects which allow for country-specific factors other than the incidence of STW. Table 3 presents the empirical results for the 27 EU Member States from the first quarter of 1990 to the fourth quarter of 2009.

The coefficient of annualised changes in value added indicates that a 1.00 percentage point change in production leads to a 0.11 percentage point

change in employment growth. The coefficient on dummy crisis indicates that, during the 2008-2009 recession, a further fall (by 0.5 percentage points) in employment growth has been registered as compared with the average annual fall registered over the entire period. However, this additional fall has been counterbalanced in countries with STW schemes. Indeed, the coefficient of the multiplicative dummy (Dummy crisis x Dummy STWA) is significant and positive.

Although these estimates indicate that STW schemes have had an impact on the variability of employment during the economic crisis, further analysis is needed in order to determine whether the employment initially saved by STWA will persist after the crisis.

3.2. Temporary wage subsidies

In times of economic crisis, temporary wage subsidies can be used both to ensure a smooth adjustment of employment to output changes and to address wider social or equity concerns. Such subsidies can soften social exclusion by targeting workers who bear a particularly high burden from the crisis, and who are at risk of suffering continuing strong negative effects when the crisis has receded if no adequate measures are taken. In this context, the groups of workers commonly targeted include the long-term unemployed, the low-skilled and young workers⁽¹⁸⁾, all of whose

Table 3: Panel estimation: the effect of STW schemes on changes in employment: Industry

Dependent variable: Employment growth in Industry	Coefficient	Standard Error	t-Statistic	Prob.
Value added growth	0.11	0.01	16.21	0.00
Dummy crisis	-0.47	0.21	-2.24	0.03
Dummy crisis x Dummy STWA	0.70	0.22	3.14	0.00
Constant	-0.49	0.04	-12.31	0.00
Lagged dependent variable	0.85	0.01	72.35	0.00

Observations 1472;

Sample period: 1990Q1-2009Q4

$R^2 = 0.82$

Source : Arpaia et al. (2010).

(18) Young people are of special interest because their unemployment rate has risen significantly and early labour market failure may be very costly. Indeed, several studies, e.g. Oreopoulos et al. (2008) and Skans (2004) show that unemployment during youth may affect later labour market performance in a very negative way. If skills are not put to use they will degenerate fast once one has left school, while the experience of being unemployed may reduce the incentive to search for work, all leading to reduced employment prospects. Moreover, if seniority-based rules apply, employers will cut their workforce primarily by dismissing those who have been employed for a shorter period.

chances of getting/staying employed reduce significantly when the jobs of more qualified workers are under threat.

Temporary wage subsidies aimed at encouraging hiring can strengthen employment in several ways:

- Firstly, such subsidies provide an incentive to firms to hire less-qualified workers (since they lower the relative cost of this labour to potential employers) although, if the elasticity of demand for labour is low with respect to wages (as estimated, for example, by Hamermesh (1996)), then the net impact of such temporary subsidies may be marginal.
- Secondly, positive permanent employment effects may arise from the use of temporary wage subsidies aimed at encouraging hiring in so far as such subsidised employment provides job experience and training opportunities which give the employee the opportunity to increase her/his productivity, in which case the employment may become sustainable once the subsidisation period expires⁽¹⁹⁾.
- Thirdly, in the difficult financial conditions that characterise recessions, wage subsidies may provide the company with the opportunity to retain and hire more workers.
- Fourthly, wage subsidies have the potential to lower structural unemployment as they reduce market segmentation by bringing 'outsiders' closer to 'insiders', and thus decrease wage pressures in the private sector, see Bell et al. (1999).

At the same time, wage subsidies may also have downside effects if they are permanent, or not well targeted.

- Firstly, wage subsidies distort the hiring decision of economic actors as they affect cost and benefits

(19) E.g. Jaenichen and Gesine (2007), Gesine (2008), Bernhard et al. (2008)

of hiring. The assumed difference between private and social costs and benefits might not (or rather: will most likely not) be matched exactly by the amount of the subsidy which can lead to excess employment and waste of resources.

- Secondly, the deadweight losses⁽²⁰⁾, whereby a considerable share of participating people might have got jobs without subsidisation, may be significant⁽²¹⁾.
- Thirdly, although wage subsidies may generate higher employment opportunities, one should also take into account the "crowding out" or substitution⁽²²⁾ effect on non-subsidised workers and displacement⁽²³⁾ effects from the non-subsidised sector of the labour market, so that on balance the net employment gains may be very limited and on balance, employees may be allocated to less productive activities.
- Fourthly, the fiscal situation may be too tight to finance these expenditures, especially if they cover all jobs and not only the newly created jobs.
- Fifthly, in order to minimise programme abuse it is also important to monitor employer behaviour but this can enforce prohibitive administrative burdens, especially for SME.
- Sixthly, although wage subsidies may increase the employment of the targeted workers, for instance the low skilled, it should also be taken into consideration that wage subsidies targeted at low-skilled workers will reduce the relative wage gap with more highly-skilled

(20) I.e. the hiring from the target group that would also have occurred in the absence of the measure.

(21) See Marx (2005).

(22) I.e. the replacement of jobs for non-targeted groups because relative wage costs have changed.

(23) I.e. the reduction in jobs elsewhere in the economy because of altered competition in the goods markets.

workers⁽²⁴⁾ inducing a negative incentive for the low-skilled to upgrade their skills⁽²⁵⁾. Given this potential negative effect on skill-formation, it should be made unambiguously transparent that wage subsidies are temporary.

- Seventhly, targeting wage subsidies at certain groups of workers may stigmatise them and negatively affect their employment opportunities⁽²⁶⁾.
- Finally, when subsidies tend to allow only short-term job-specific training they may not be consistent with the longer term skills needs of the labour market.

The above-mentioned effects are not easy to estimate, but the risk that they may exist has led to the view that wage subsidies should be primarily focused on the most vulnerable group of workers, and that they should be temporary. When targeted at the young, wage subsidies can ease the transition from school to work with important positive long-term side-effects. For older unemployed they may discourage them from seeking early retirement, while for the long-term unemployed they may offer better employment prospects.

Wage subsidies to encourage hiring or maintaining employment in response to the crisis have been used in several Member States, but with most subsidies targeted at specific groups so that their fiscal cost remains limited. Most of these temporary measures are set to expire by end-2010. See Box 4 for more details on wage subsidies introduced or expanded since the onset of the economic crisis in the various Member States.

(24) In addition, the wage gap will also decrease as the result of tax increases on the medium- and high-skilled wages necessary to finance the wage subsidies.

(25) See Oskamp and Snower (2008).

(26) See Lee (2005).

Box 4: Wage subsidies

In Austria, a temporary wage subsidy equal to two thirds of labour costs has been introduced until end-2010 in order to promote employment for the long-term unemployed in municipal bodies or charitable organisations. In 2010 the target group for subsidisation has been expanded to include young people under 25 who cannot find a job after graduation (due to lack of qualifications and/or work experience). In France the number of subsidised jobs targeted at older workers and young people without qualifications has been expanded in 2009 and 2010, and bonus payments have been introduced for employers hiring apprentices.

In Hungary, a programme of wage support for firms that hire workers laid off by other firms was created but ended in 2009. In Ireland a scheme has been introduced to provide subsidies to vulnerable but viable companies which would have made people redundant without the subsidy. The subsidies are provided to enterprises which retain a set number of posts until the end of 2010.

In Malta, the Employment Aid Programme facilitates access to employment for disadvantaged people and the disabled through financial assistance and skills upgrading. The programme was launched in February 2009 and is expected to end by September 2013. In Romania the Employment Aid Scheme was launched in March 2009, aimed at supporting the employment of young people, the unemployed, the disabled, low-skilled people, and the socially vulnerable. This scheme has a maximum duration of three years.

In Slovakia, (until end 2010) new subsidies are provided to employers who hire unemployed people (who have been registered as unemployed for at least three months) in jobs lasting at least 12 months.

In the United Kingdom, a new programme to subsidise jobs in local authorities and other community organisations in areas of high unemployment has been created for young people and jobseekers. At the same time new incentive payments have been created for employers who employ and train people who have been unemployed for more than six months. This scheme will end in March 2011.

In Estonia, eligibility for wage subsidies has been temporarily relaxed so that in 2010 employers are entitled to wage subsidies if they hire a person who has been registered as unemployed for six months (or three months if the person is aged between 16 and 24), compared with 12 months previously.

In Finland, the conditions of wage subsidies for young job seekers (under 30 years of age) have been temporary relaxed until 2011.

In Slovenia, a pilot programme has been launched under which students who are about to graduate are given on-the-job training in their field of study, and are supported with employment subsidies after completing their studies by the designated deadline. This measure covers the period from 2009 until 2011.

In Belgium, the Flemish government increased the wage subsidy for hiring unemployed people over 50 on permanent contracts. The Walloon government introduced additional subsidies for young people in SMEs.

In Cyprus, temporary subsidies - ending by end-2010 - have been allocated to private sector employers for hiring unemployed people. Permanent subsidies were introduced to support the employment of disabled people and those from vulnerable groups.

In Poland, reimbursement of equipment costs of firms hiring unemployed people has been permanently increased.

In Spain, a State Fund for Local Investment was implemented in 2009, which aims to encourage local councils to undertake public works and investments which create employment. In 2010, the State Fund for Employment and Local Sustainability was introduced. This focuses on projects for sustainable renovation, energy saving, environmental sustainability and social facilities.

In Sweden, hiring payments for employers who recruit people who have been unemployed or sick for more than a year and newly-arrived immigrants were permanently increased.

In Greece, a programme of subsidised employment was launched during the first months of 2009 and targets small firms (up to 50 employees) and young unemployed people (mostly women and long-term unemployed), irrespective of educational level. Participating workers must be registered unemployed workers having received individual assistance from job counsellors, while participating firms must prove that any new recruitment will not be made at the expense of existing employees. Following the termination of the subsidies, the firm must keep the subsidised worker(s) for a period of three months.

Source: OECD-European Commission questionnaire on employment and social policy in the economic downturn – 2010 update.

3.3. Reductions in non-wage costs

Temporary reductions in social security contributions can be used to limit the negative impact of the crisis on employment and social cohesion, especially if they are targeted at disadvantaged groups (such as the disabled, young people, ethnic minorities and the long-term unemployed) or industries (such as SME). Such measure has the potential to stimulate the economy by increasing employees' disposable income and alleviating cost pressures for employers. The impact of such temporary measure could be strengthened if one would make it permanent and offset the budgetary effects by appropriate measures, such as increases in taxes on energy and emission of pollutants⁽²⁷⁾ - provided that the induced price increases do not trigger increases in wage claims.

Nevertheless, empirical analyses indicate that targeting specific groups of employees may have a negative effect on the employment prospects of categories that are (narrowly) ineligible, see for instance Marx (2005). Moreover, deadweight costs may arise as some individuals receive a cut in social security contributions even though they would have been hired without such a cut.

Several Member States have introduced cuts in social security contributions, directed either at the entire workforce or specific groups of workers.

In 2009, Germany reduced both employer and employee contributions to unemployment insurance on a temporary basis. In 2010, employers' social security contributions in Hungary were permanently reduced: as of mid-2009 employers' contributions

were cut from 32% to 27 % for wages less than double the minimum wage, and this was extended to all wages at the beginning of 2010.

Several Member States have temporarily reduced social security contributions for new hires.

- In Ireland, an employer is fully exempted from the payment of social security contributions during the new employee's first year in a new position, if the employee has been unemployed for six months or more.
- In France, employers' social contributions have been reduced for firms with less than 10 employees which hire low-wage workers - the reduction is largest for workers hired at the minimum wage and declines gradually, reaching the statutory rate for wages 1.6 times the minimum wage. Social contributions for enterprises hiring apprentices have been suspended.
- In Portugal, employers are temporarily exempted from paying social contributions for two years if they hire long-term unemployed people or under-35 for full-time, permanent jobs - a measure introduced in 2009 and extended until the end of 2010. At the same time, a 50% reduction in employer social contributions is granted for hiring older unemployed people (55 years or older, reduced to 40 years or older in 2010). There is also support for fixed term contracts, through a reduction of 50% of employer social contributions during the first year of the contract and 65% thereafter. In 2009, a temporary reduction in employer social contributions for small businesses (less than 50 employees) and for workers over 45 years of age was introduced.

- In Slovenia, employers are eligible for a reimbursement of social security contributions if they hire unemployed people under 26 or over 55. These measures are permanent.

- In the Czech Republic, temporary reductions in non-wage costs were introduced which were originally intended to last up to end-2010, but they were terminated earlier due to their strong negative budgetary impact.

- In Austria, until end-2013 25% of the gross wage will be paid by the public employment services for one year when a single-person business hires a young unemployed person for the first time.

- In Poland, a reduction in employer social contributions is given for the first 12 months of employment of previously unemployed people of 50 or over. This measure is permanent.

3.4. Public sector employment⁽²⁸⁾

Jobs in the public sector have been created in several Member States in response to the economic crisis. For instance, in Lithuania community jobs for which no specific qualifications are required and which have a maximum duration of six months have been created for registered unemployed people who do not receive unemployment benefit. In the United Kingdom, a new subsidised jobs programme has been introduced for young people and jobseekers in areas of high unemployment with a view to helping them to find work with local authorities and other community organisations.

In the short run, public sector employment creation may save and create jobs when economic activity declines. However, public sector employment creation has its limitations primarily because of fiscal constraints and because of its potential (long-term) adverse impact on labour supply in the private sector, especially if such measures turn out to be irreversible.

(27) The Europe 2020 Integrated Guideline 1 calls for taxes that do not harm growth and employment. Where taxes may have to rise, this should, where possible, be done in conjunction with measures to make tax systems more growth-friendly by shifting the tax burden from labour to, for example, environmentally harmful activities.

(28) The assessment in this chapter is limited to labour market measures *sensu stricto*. This implies that employment effects of public works such as infrastructure building are not examined.

In the medium to long term, the adverse effects of public sector employment on private employment primarily stem from the degree of substitution between production in the public and private sectors, from the presence of rents in the public sector, and from its negative effect on job-seeking activity levels, see Algan et al. (2002). The higher the substitutability between the activities in the private and public sector, the larger the crowding out of the private sector employment by public sector employment creation will be. Moreover, to the extent that public sector employment provides better wages, better benefits, etc. it may also crowd out private employment, as private sector employees will negotiate for higher wages, having the public wage as fall-back position⁽²⁹⁾.

Public job creation will also negatively affect job-seeking activity levels in the private sector, thereby reducing employment in the private sector, (see Demekas and Kontolemis 2000). To avoid such lock-in effects, it is argued that the creation of (temporary) public sector employment should be accompanied by measures that encourage job seeking.

Public sector employment creation through public sector investment is sometimes seen as a more effective instrument, although there may be a significant time lag between the conception and execution of the investment, possibly limiting its usefulness for the current economic downturn.

All in all, while the use of public sector employment to deal with cyclical problems can raise difficulties, from a broad socio-economic perspective, it has the potential to provide employment opportunities for the disadvantaged who are adversely affected by the crisis and who are disadvantaged in the labour market (see Brodsky (2000)) especially during an economic downturn.

(29) Using a dynamic matching model, Choulet (2006) shows that while public job creation may improve employment in the short run, the creation of these jobs will affect employment negatively in the private sector in the medium term.

3.5. Promoting self-employment and business start-ups

There are approximately 20 million small and medium-sized enterprises (SMEs) in the EU. They account for 99 % of the total number of companies, employ two-thirds of the total workforce and generate nearly 60 % of EU value added (see Box 5)⁽³⁰⁾.

During the economic crisis several Member States have introduced new measures to stimulate self-employment and business start-ups.

In Bulgaria, a scheme to promote self-employment was launched in 2009 and runs until end-2013, providing training for the unemployed, start-up grants for successful trainees and consultancy services.

In Estonia, a business start-up subsidy is provided, together with counselling and special training from the beginning of 2010 until at least 2013.

In Finland, the value of existing start-up grants for unemployed people (and existing workers) has been increased.

In Lithuania, opportunities for the unemployed to start a business have been increased through finance provided by the European Globalisation Fund.

In Malta, a scheme has been offered to former shipyard employees who want to start their own businesses, by offering support in acquiring entrepreneurship skills and a financial grant.

In Poland, the ceiling of grants to unemployed people for the start-up of a new business has been increased.

In Portugal, subsidised credit is provided to young unemployed people who start a new business provided they meet certain criteria, including registration with the public employment services.

(30) See also European Commission (2009f).

In Slovenia, funds have been provided for the education and training of unemployed people who want to become self-employed. However, in 2010 the rules for eligibility have been narrowed (obligatory consultation on suitability - competences for entrepreneurship).

Until end-2010, Slovakia has introduced a temporary exemption from health insurance payments (up to 24 months) for people entering self-employment after a period of three months on the jobseekers register.

In Spain, the capitalisation of unemployment benefits⁽³¹⁾ to encourage self-employment was raised from 40% to 60% (the percentages were later increased to 80% for young people aged up to 30 and women up to 35).

In the United Kingdom, business start-up incentives for job seekers have been brought forward. Those who make the move into self-employment are eligible to receive Self-Employment Credit for the first 16 weeks, and ongoing mentoring support is provided for those who need it.

In Greece, two programmes to help with the start-up of businesses were introduced in 2009. The aim of the first programme is to help young graduates (up to 34 years of age), such as engineers, medical doctors, pharmacists, lawyers, etc, to establish an independent professional activity. The second programme targets all unemployed people; enabling young unemployed people wishing to become self-employed to receive a subsidy, provided that they first participate in an entrepreneurship course.

(31) Unemployment capitalisation consists of receiving a sole payment of the total or partial amount - depending on the category - of unemployment benefit at contribution level. Its objective is to boost employment, since the person without work can, from the start, have money available to invest in a self-employment-based activity. See http://www.barcelonanetactiva.com/barcelonanetactiva/images/en/07_ip_capitalitzacio_atur_en1_tcm105-59053.pdf for more details.

In France, support was granted to firms in the housing and automobile industries among others and some government-funded programmes for businesses were accelerated, especially for SMEs. Access to finance has been eased by providing additional funding for SMEs via reattribution of regulated savings, to help finance loans for that category of business for a total amount of € 22 billion, i.e. around 1 % of GDP.

In Germany personal income tax credit for services supplied by self-employed people for household repairs can be as high as 20 % (ceiling: EUR 6 000,

i.e. maximum aid = EUR 1 200), and this over an unlimited period.

At European level, the establishment of the European Microfinance Facility was agreed in March 2010. This facility provides loans to people who have lost their jobs and want to start or further develop their own small business. A budget of EUR 100 million is being made available over four years but this can be increased to more than EUR 500 million in a joint initiative with international financial institutions, in particular the European Investment Bank. Those helped under the initiative will also be able to benefit from mentoring,

training and coaching as well as assistance in preparing a business plan, in close cooperation with the European Social Fund⁽³²⁾.

Although the above-mentioned measures target well-specified groups, it should be recognised that promoting self-employment is a process that creates new jobs primarily in the medium to long term, especially if one takes into consideration the difficulties in starting a business during an economic downturn. Moreover, such start-ups may crowd out existing businesses, leading employees to revert to self-employment in order to take advantage of the support measures.

Box 5: Self-employment in Europe

The typical European firm is a micro-enterprise (less than 10 people) and accounts for more than 90% of all firms in the EU and 95 % of newly created companies. Micro-enterprises employ almost one-third of the total private labour force. Entrepreneurship, and self-employment in particular, play a key role in small business creation. Given that 30% of the self-employed have employees of their own, these newly-created firms contribute significantly to job creation and therefore to achieving the European Union's goal of more growth and jobs. This was acknowledged in the Small Business Act for Europe (SBA⁽¹⁾) in mid-2008, in the national and European economic recovery plans and, more recently, with the creation of a EUR 100 million "European Progress Microfinance Facility" to make it easier for people who have lost or risk losing their jobs to get credit to start up small businesses. Furthermore, the newly-proposed EU 2020 strategy⁽²⁾ puts a special emphasis on entrepreneurship and the June 2010 Directive on self-employed workers and assisting spouses gives improved social protection to the self-employed, including the right to maternity leave.

Self-employment, including employers, accounted for nearly 15% of total employment (more than one job in seven) in EU27 in 2009⁽³⁾ and is an essential component of the EU's economic dynamism. Between 2002 and 2007, boosted, among other things, by new communication technologies and a generally more favourable business environment for the services sector, the number of SMEs in the EU increased by over 2 million (more than 10%).⁽⁴⁾ However, the contribution of self-employment to total employment growth in recent years has been limited. While the number of self-employed people grew by an average of 0.3% per year between 2000 and 2008 (peaking at roughly 33 million in 2007), the growth in salaried employment amounted to 1.4% per year over the same period. As a result, the number of self-employed people only grew by 0.8 million between 2000 and 2008, compared with overall employment growth of nearly 20 million. Most Member States have therefore experienced declining self-employment rates (SER⁽⁵⁾) over this period, with the notable exceptions of Czech Republic, Germany, Malta, Netherlands, Austria, Slovakia and United Kingdom. The EU's average self-employment rates declined almost continuously from 15.8% in 2000 to 14.8% in 2008, affecting both men and women, as well as every age group.

The economic crisis cost more than 5 million jobs between the first quarter of 2008 and the first quarter of 2010, while the unemployment rate climbed from 7% to 10.1%. Self-employment was no exception, as roughly 450 000 self-employed people lost their jobs in that period (LFS data). Yet the self-employed sector has shown a degree of resilience, as the relative employment decline has been more moderate in comparison with dependent work. Overall, 2009 was a year of stabilisation for self-employment and this was confirmed in subsequent quarters. Compared to 2008, the number of self-employed fell by less than 1%, while that of dependent employees fell by nearly 2%. In a majority of Member States, SER consequently picked up and the EU SER average edged up to 15% in the first quarter of 2009, remained stable through the year and picked up until recently (15.2% in 2010q1 and 2010q2).

The downturn has not radically altered the distribution of self-employment across countries. It remains stronger in southern Member States with larger agricultural sectors such as Greece (SER in 2009 = 29.9%), Italy (23.4%), Portugal (22.8%) and Romania (20.8%), and weaker in countries such as Luxembourg, Estonia and Denmark (8.0, 8.1 and 8.8%, respectively, see Chart 3).

(1) See the Communication on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0394:FIN:en:PDF> and SME Performance Review – SBA Fact Sheets, European Commission.

(2) More information on http://ec.europa.eu/eu2020/index_en.htm

(3) Labour Force Survey, LFS, Eurostat.

(4) Structural Business Statistics, SBS, Eurostat.

(5) Self-employed as a percentage of total employment.

(32) For more details on the European Microfinance Facility, see <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=730&furtherNews=yes>

Chart 3: Self-employment rate in 2009



18.6 % of self-employed people work in agriculture, 17.0% in wholesale and retail, 13.4 % in construction and 10.3 % in professional, scientific and technical activities (2009 figures). Nearly 45 % of the self-employed work in services, ranging from trade to transport, financial and real estate activities, while only one-third of paid employees work in that sector. Conversely, self-employment is less industrial than dependent employment and nearly absent from public services. Regarding the typical profile of the self-employed in the EU, in 2009, 69.6 % were male and 37.5% aged over 50, compared to 52.5 % and 23.9 % respectively in salaried employment. On average, the highest level of education attained by the self-employed is comparable with that of paid employees, although the proportion who are lower-skilled⁽⁶⁾ remains, at 27.8%, significantly higher than for paid employees (21.3%).

In the EU, the preference levels for self-employment have remained stable between 2007 and 2009⁽⁷⁾: 45% of all Europeans would like to be self-employed, while 49% say they would prefer working as an employee. Conversely, in the US, the preference for self-employment has decreased from 61% to 55% over the same period. Men generally express a stronger preference for self-employment (51%) than women (39%), and young people are more inclined to start a business than older citizens. In all, 52% of those aged 15-24 prefer self-employment compared with 47% of those between 25 and 39 and 46% of those between the ages of 40 and 54. A good education promotes the desire for self-employment. Self-fulfilment, independence and free choice of place and time of work are the main reasons for starting up one's own business, while citizens from the newer Member States also appreciate the prospect of a better income.

Appropriate labour market policies are key to supporting growth in self-employment in the EU. Start-up incentives in particular are an essential component of support for business creation. More than 770 000 people benefited from such measures in 2008, accounting for a total budget of EUR 4.1 billion, i.e. roughly 0.03% of EU GDP⁽⁸⁾. Compared to incentives aimed at stimulating the hiring of unemployed people for dependent jobs, start-up incentives may prove cost-effective, considering that successful self-employment may lead to subsequent hiring of dependent employees. More recently, self-employment has been supported under the national and European economic recovery plans and the new "European Progress Microfinance Facility"⁽⁹⁾. In order to improve the efficiency of such measures, further attention is needed, in particular to cost-effectiveness (through mutual learning) and the sustainability and quality of self-employment.

The quality of working life for self-employed people is of concern. A total of 18% of self-employed people are classified as poor, against 6% of employees and their median equivalised disposable income amounts to EUR 12 000 per year, i.e. 3 700 less than for employees. Self-employed people with employees work, on average, 50 hours per week⁽¹⁰⁾, i.e. 13 more than paid employees and eight more than stand-alone entrepreneurs. Although employers have more training opportunities than self-employed people without employees, they lag behind the paid employees. As regards health issues, 41% of the self-employed say that work has an adverse effect on their health and 25% consider work stressful, against 33 and 21% respectively for paid employees.⁽¹¹⁾ The new EU Directive on self-employed workers and assisting spouses is expected to partly address these issues, through granting self-employed women, assisting spouses and life partners of self-employed workers a maternity allowance and a leave period of at least 14 weeks, for the first time at the EU level.

(6) Corresponding to pre-primary, primary and lower secondary education - levels 0-2 (ISCED 1997).

(7) According to the Flash Eurobarometer No. 283 on "Entrepreneurship in the EU and beyond", More information at http://ec.europa.eu/public_opinion/flash/fl_283_en.pdf

(8) Source: LMP database, Eurostat.

(9) More information on <http://ec.europa.eu/social/main.jsp?catId=836&langId=en>

(10) Source: LFS (2008), Eurostat.

(11) Source: EWCS (2005), read also OSHA (2010), "OSH in figures: stress at work — facts and figures", http://osha.europa.eu/en/publications/reports/TE-81-08-478-EN-C_OSH_in_figures_stress_at_work/view.

Sources: "Working poor in Europe", European Foundation for the Improvement of Living and Working Conditions, March 2010, and EU-SILC (2008). The median equivalised disposable income reached EUR 15 000 for employers and EUR 11 100 for stand-alone entrepreneurs in the same year. The "equivalised disposable income" is the household's total disposable income divided by its "equivalent size", to take account of the size and composition of the household, and is attributed to each household member.

3.6. Promoting mobility and balancing migration

Labour mobility, whether across regions or between occupations, can make a major contribution to balancing supply and demand in the labour market.

Geographical mobility in the EU remains low, due to both the very different labour markets and social situations and circumstances of the Member States, administrative hurdles (such as problems of recognition of skills and qualifications), insufficient language skills and citizens' lack of information on mobility opportunities⁽³³⁾. At the beginning of the crisis, few initiatives had been taken to improve this. What concrete actions there are include tax incentives and travel allowances to employees travelling from their place of residence to another region in which a suitable job offer is made – as offered for instance in Belgium and Slovakia. Repatriation allowances have also been provided to migrants who have become redundant due to the crisis and wish to return to their country of origin (e.g. in the Czech Republic)⁽³⁴⁾.

Occupational mobility is strongly conditioned by the type of training available to workers and unemployed people. During an economic downturn, the importance of promoting mobility by giving the workers and unemployed training so that they acquire the adequate skills to move to another job is regularly underlined⁽³⁵⁾. In the current downturn, this is especially relevant as it has become a strategic option for the EU to rebuild its economic infrastructure so as to address the structural challenges posed by climate

(33) See Chapter 3 in *Employment in Europe 2008 report*.

(34) See *European Foundation for the Improvement of Living and Working Conditions (2009)*.

(35) See next subsection for an overview of policy measures aimed at training the employed and unemployed persons.

change and demographic ageing as well as economic cycles.

4. UPGRADING OF SKILLS AND LABOUR MARKET MATCHING

4.1. Skill formation

Upgrading skills is not only required in order to promote smart, sustainable and inclusive long-term growth, but also to increase the speed and intensity of the economic recovery. For instance, a green stimulus package will be largely ineffective without a sufficient supply of green-collar professionals with adequate and appropriate skills for green jobs. Moreover, as sectors such as car manufacturing, steel production and construction may face difficulties in recovering fully, while other sectors such as low-carbon, health and social care sectors will have strong growth potential, there is an urgent need to ensure that human capital formation reflects the new employment opportunities.

The economic downturn has had a negative impact on human capital formation in several ways⁽³⁶⁾:

- Firstly, the longer unemployment lasts, the more the skills and attitude to work of the unemployed tend to degenerate.
- Secondly, as workers are laid off, their firm-specific skills may not be useful or useable in other firms.
- Thirdly, as the resources to finance training and education may become scarcer during the crisis, skill formation may be scaled down.
- Fourthly, people, and especially the young, may be discouraged

from investing in their education and training as the crisis negatively affects their perceived prospects of future work opportunities.

Nevertheless, the crisis has also created conditions that support skill formation:

- Firstly, the expected higher level of restructuring during the recovery could justify a greater emphasis on training.
- Secondly, human capital increases because the young stay longer at school while the old take any opportunity to train further in order to increase chances of not losing the job (if employed) or finding a new one (if unemployed).

In some Member States the crisis has also acted as a catalyst for improving the flexibility of training services by decentralising administration, shortening the waiting period for training (Finland and United Kingdom), subsidising more training places (Bulgaria, Estonia, Ireland, Cyprus, Poland and Sweden), and widening the scope of training to those at risk of being laid off (Cyprus and Latvia), the self-employed (Estonia), young people (Malta, Austria, Portugal and United Kingdom), older workers (France), and future-oriented sectors like health and social care (Belgium, Austria and United Kingdom).

Several efforts have been made to intensify training specifically targeted at the employed (see Box 6). In several Member States during the current crisis new STWA measures were introduced, or existing schemes were modified, to encourage the combination of temporary short-time work with training. Nevertheless, relatively few short-time workers participate in training when it is not compulsory: less than 10% in Belgium, Germany and Finland and less than 25% in Austria.

(36) New skills for new jobs see <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=431&furtherNews=yes>

Box 6: Training for the employed

In Bulgaria, vouchers to participate in training to acquire new skills are provided to employed people from end-2009 until end-2012.

In Cyprus, existing training schemes were adapted in order to provide on-the-job training to employees who risk being laid off.

In Germany, vocational training programmes have been temporarily (until end-2010) extended to workers at risk of unemployment, older workers in small- and medium-sized enterprises and temporary workers rehired by their agency. The initiative entitled "continuing vocational education of low-skilled persons and older employees" (WeGebAU) focuses on the promotion of these two target groups. It is not a new initiative, but it was extended in response to the crisis. In January 2009 a third target group has been included – employees whose vocational education had been completed more than four years earlier. The initiative pays training fees and the employer can receive a subsidy for the loss of working time.

In Estonia, job seekers as well as existing workers are given the possibility to receive further professional training (until end-2012).

In Finland, availability of places on vocational training targeted at young people and low-skilled workers has been increased.

In France, a social investment fund (of two years' duration) has been created to coordinate measures supporting employment and vocational training. A new agreement to increase funding for training for existing workers and job seekers has been concluded between the government and social partners. This is particularly focussed on workers in sectors facing major difficulties.

In Malta, a Rapid Reaction Unit has been set up to assist in training of workers from companies where mass lay-offs have occurred or reduced working-time arrangements are in force.

In the Netherlands, tax credits for training costs of existing workers have been temporarily increased and training costs for employers who allow unskilled workers to take part in learning programmes are to be reimbursed until end-2010.

In Austria, training programmes were modified to allow for 50% co-financing of training costs by local governments (until end-2011) and to facilitate take-up by reducing the minimum duration of employment needed for eligibility from one year to six months.

In Portugal, vocational training for employees of the automotive sector has been prolonged in 2010 and has been extended to other sectors such as textiles and clothing, tourism, furniture and trade.

In Spain, training programmes for workers in the automotive sector have been implemented.

Source: OECD-European Commission questionnaire on employment and social policy in the economic downturn – 2010 update.

Apprenticeship schemes have been reinforced in several Member States by temporarily providing apprentices with higher subsidies (Germany, Cyprus), better informing entrepreneurs (Denmark), focussing on early school-leavers (Hungary, Netherlands, Portugal, United Kingdom) and on redundant apprentices (Ireland), and by focusing on apprenticeships in specific sectors such as the care sector (United Kingdom). Nevertheless, it is not always

possible to implement such measures in a timely manner due to the time it takes to create places among employers and recruit trainees.

In most Member States it is also acknowledged that it is necessary to keep workers who have been made redundant in close contact with the labour market and to reduce structural unemployment through the provision of training and other

measures (see Box 7). These measures have been complemented by intensified job-seekers assistance programmes. Nevertheless, it is recognised that, while targeting training may increase the job-perspective for unemployed people, in order for such training programmes to be fully effective they need to be tailored to the specific characteristics of the unemployed and this can involve significant fiscal costs.

Box 7: Training for the unemployed

In Belgium (Flanders), the training and guidance capacity of the Public Employment Services has been strengthened for so-called bottleneck jobs and 'jobs for the future'. In Wallonia and Brussels, various initiatives have been taken including training voucher for language and adaptation to new skills, directed to temporary unemployed and unemployed people from 26 sectors.

In Cyprus, a temporary scheme for upgrading the skills of unemployed people has been established, ending in February 2010.

In Germany, additional funding has been provided for the vocational training of unemployed people with special focus on training as nurses.

In Denmark, the unemployed receive financial support for training during their start-up period in a new job. Before the crisis the existing training scheme gave any insured unemployed person the option to choose up to 6 weeks of education during the first 9 months of unemployment (6 months if aged less than 30 years). The reform of the scheme implies that the limit of 6 weeks is suspended if the unemployed has no vocational training or obsolete qualifications, if the unemployed person cannot find work within his/hers previous line of work and if the education taken is directed at areas where there are good employment prospects (for instance in health care).

In Estonia, the registered unemployed and people with redundancy notice may apply for training vouchers until the end of 2010.

In Finland, training places for the unemployed were increased, with special focus on the low-skilled and young people.

In France, support has been increased for training programmes for workers who participate in work placements after mass lay-offs.

In Hungary, training programmes for disadvantaged groups were extended to people made redundant during the crisis. Participation is voluntary and the training is part of a package that includes other services, such as wage subsidies, job-seeking assistance, and commuting subsidies. The programme will finish by end-2010.

In Ireland, provision of training and work experience placements for the unemployed has been increased.

In the Netherlands, training for unemployed people has been made more flexible, service desks in regional employment centres have been established and grants for retraining workers threatened by redundancy are awarded until 2010.

In Austria, regional training programmes for the unemployed have been temporarily expanded (until end-2010), whereby temporary additional training places have been created for the unemployed and for women in technical occupations. Special attention has also been paid to training in the health and social professions and initiatives for integrating immigrants were expanded.

In Portugal, new training places for the young unemployed have been created in 2010.

In Poland, vocational training programmes for the unemployed have been expanded, and income support for the unemployed taking part in training, on-the-job training or apprenticeships has been increased.

In Sweden, financial aid for the unemployed undertaking training or education has been increased and practical skills development for unemployed people with previous employment experience has been increased.

In the United Kingdom, funding for training has been increased for those at risk of job loss or recently made redundant. All 18-24 year olds are guaranteed a job or work-focused training place before reaching 12 months of unemployment.

In Spain, a budget to finance enrolment in masters' programmes at public universities of people between 25 and 40 years of age and entitled to unemployment benefits was approved in 2009.

In Greece, a programme has been implemented which aims to improve the prospects of young unemployed people by providing them skills that are considered as essential for finding a job. Beneficiaries may choose to participate in one or more of the three actions envisaged by the programme, namely: a) Achieve a work record, b) Achieve a training certificate in informatics, and c) Receive guidance and counselling services. The duration of the course is set at 60 hours. A fee is foreseen for participants (10 Euros per hour).

Source: OECD-European Commission questionnaire on employment and social policy in the economic downturn – 2010 update.

All in all, while these training schemes should cover the specific needs of participants and local labour markets to address the temporary cyclical downturn in labour demand, it should also be taken into consideration that the integration of ICT and digital competences into learning schemes is becoming a pressing priority that needs more attention in training schemes. Only in this way will the labour force be capable of adjusting to technological change and new patterns of work organization in the medium and long run. This implies a need to further monitor skill types, target groups, specific course features, in order to fine tune the training programmes and promote inclusion.

As regards higher education, national responses to the economic crisis have been very diverse, from increased

investment through stimulus packages (in Austria, Cyprus, France, Lithuania and Portugal), to severe cuts (in Ireland and Latvia). In a number of Member States, the impact of the crisis extends beyond changes to national higher education budgets, and includes changes in enrolment rates, staffing and infrastructure implications, and an increased focus on the social dimension and lifelong learning. Some Member States offer additional places in higher education institutions in order to improve the skills the unemployed and citizens generally and a number of Member states are increasing social support to students⁽³⁷⁾.

(37) Source: Eurydice, *Focus on Higher Education in Europe 2010, The impact of the Bologna process*, available at http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/122en.pdf

4.2. Labour market matching

If complete and perfect information were available about jobs and people seeking work, if there were no structural rigidities in the economy and labour market, and no obstacles to lower-cost mobility, then the problems associated with matching demand and supply for labour would effectively disappear. However, that is not the world in which we live. Imperfections and rigidities do exist in practice and it is an empirical fact that, during an upturn, vacancies are high and unemployment low while, during a downturn, vacancies are low and unemployment is high (the so-called Beveridge curve). The efficiency of labour market matching depends

on such factors as the degree and effectiveness of search activity, the extent of the differences between skills demanded and supplied, as well as the geographical distance between workers and jobs.

Active labour market policies (ALMP) may play an important role in improving labour market matching efficiency by promoting adjustments in job-seekers' skills (for instance, through training programmes) and job search effectiveness (for instance, through more active employment agencies). Moreover, ALMP can keep unemployed workers in contact with the labour force which helps their reintegration into the production process. However, the cost of ALMPs may be high, limiting their overall effectiveness in increasing or maintaining levels of employment (see Card et al. 2009).

The capacity of the Public Employment Services (PES) has been extended in most Member States in order to meet the increased demand, with staff levels increased by 10% or more over the past three years in Germany, Estonia, Cyprus, Hungary and Poland. Despite these additional resources, the growth in staff has not kept up with the increase in the number of jobseekers registered at the PES and in some Member States such as Estonia, Latvia and Lithuania, the caseload more than doubled between 2007 and 2009.

Since mid-2009, the PES in several Member States have intensified job search assistance targeted at particular groups such as youth (Austria, Finland), immigrants (Finland), people with short-term contracts (Belgium) or people not receiving benefits (France), and job search assistance has been provided earlier than previously in others (Finland, United Kingdom). Immediate entry into training has been introduced for young people registering for social assistance (Denmark, Netherlands), while labour mobility has been intensified by subsidising the issue of recognition of certificates showing qualification levels (Netherlands, Austria).

In general, regimes are getting tougher. In Finland, job seekers are required to search for jobs in wider geographical areas (in an area up to 80km from their homes). In Poland, job seekers are now denied benefits if they refuse to accept a suitable job for no justified reason. In Malta, long-term unemployed must do community work or lose their benefits. In Denmark, unemployed people under 30 are required to participate in ALMP after three months of unemployment (down from six months). In the United Kingdom, support and mutual obligation requirements⁽³⁸⁾ increase with the length of unemployment.

On the other hand, in Belgium job search assistance has been intensified by requiring all firms who make a mass dismissal of more than 20 workers to set up a unit to give workers targeted job search assistance and career guidance. In the United Kingdom, job search training and assistance has been increased, including additional targeted support for firms making mass redundancies, communities affected by multiple redundancies, and newly-unemployed people facing significant barriers to finding a job, as well as those unemployed for more than six months. Similarly, in France support programmes for workers affected by mass layoffs have been expanded.

Several Member States have also expanded the role of private employment agencies to provide additional capacity (France, Italy, Poland).

5. INCREASING ACCESS TO EMPLOYMENT AND SUPPORTING HOUSEHOLD INCOME

In several Member States, direct income transfers have been temporarily reinforced. Income support for the newly unemployed includes support

for children (Germany), mortgage payments (Spain, Hungary), guaranteed minimum income (Latvia), tax rebates as well as increases in the duration and level of unemployment benefits (UB).

Several Member States have modified the eligibility and generosity of their UB systems in response to the economic downturn. For instance, in Belgium the amount of the UB paid during the first year of unemployment has been increased, while in Bulgaria the UB was temporarily increased in 2009. In Austria, the assessment base for UB has been upgraded to take account of inflation. In Latvia, the period for calculation of the amount of UB has been extended since the beginning of 2010. In Slovakia, a temporary measure has been taken so that short periods of time spent on reduced working hours or on work suspension do not preclude eligibility for UB. The period covering parental leave is permanently included in the period of employment required for UB entitlement. In Latvia, Slovenia and Finland, the period of employment required to become eligible for UB has been reduced, although in Latvia, UB will be capped from the beginning of 2010 until the end of 2012⁽³⁹⁾. In France, the period of prior employment to determine eligibility for UB has been lowered from six months worked in the previous 22 months to four months worked in the previous 28 months (36 months for workers over 50). In Greece, the unemployment benefit increased gradually. In Poland, the monthly benefit level rose by nearly 30% although, after three months, the amount of the benefit will fall by around 21%. In Italy, the access to unemployment benefits is made conditional upon declaring immediate readiness to work or participate in a training offer. In the Netherlands, the initial level of unemployment benefits has been

(38) I.e. benefit recipients are expected to engage in active job search and improve their employability in exchange for benefit payment.

(39) I.e. the daily UB will be reduced to LVL 11.51 (EUR 16.38) plus 50% of the amount of the calculated unemployment benefit exceeding LVL 11.51 (EUR 16.38).

increased to 75% of the last daily wage during the first two months (with a maximum daily wage of EUR 185.46), and 70% thereafter. In Spain, a temporary measure was introduced whereby short periods of time spent on reduced working hours or suspension of work contract will not affect a person's eligibility for unemployment benefits. In Sweden, in order to promote membership of unemployment insurance funds, and against the backdrop of the economic downturn, months of unemployment between 1 January and 31 December 2009 are counted twice.

In several Member States, the duration of eligibility for UB has also been modified. In Romania, the duration of eligibility was extended by three months in 2009. In Lithuania, it can be prolonged by two months in those municipalities where the registered unemployment rate is 1.5 percentage points higher than the national average. At the same time, the waiting period for entitlement has been extended to the number of months for which severance pay is paid. In Latvia the duration of UB entitlement has also been temporarily extended⁽⁴⁰⁾. In Portugal the duration for unemployment benefits for long-term unemployed has been temporary extended. In the Czech Republic, the duration for UB entitlement has been reduced permanently by one month, but the amount of UB paid during the first two months has been increased. In Poland, the duration of UB eligibility has also been reduced. In Ireland job-seeker's benefit will be paid for up to 9 months (previously 12 months). This will apply to new claimants and those with an existing duration of less than 3 months on jobseeker's benefit on 14 October, 2008. As discussed in previous subsections, the potentially adverse effects of these

measures on labour supply have, in many cases, been balanced out by measures to ensure more active labour market search.

Raising UB during an economic downturn has several effects on employment. On the one hand, it supports aggregate demand thereby sustaining labour demand and hence also employment but, at the same time, higher UB will increase wage demands of unemployed people when negotiating for a wage and, as a consequence, employment may decline. Moreover, temporary increases may be perceived as being permanent and difficult to reverse once the economy recovers. Nevertheless, income transfers have the advantage of being quickly transmissible through the social safety net, although not all of those who are out of work are necessarily covered⁽⁴¹⁾.

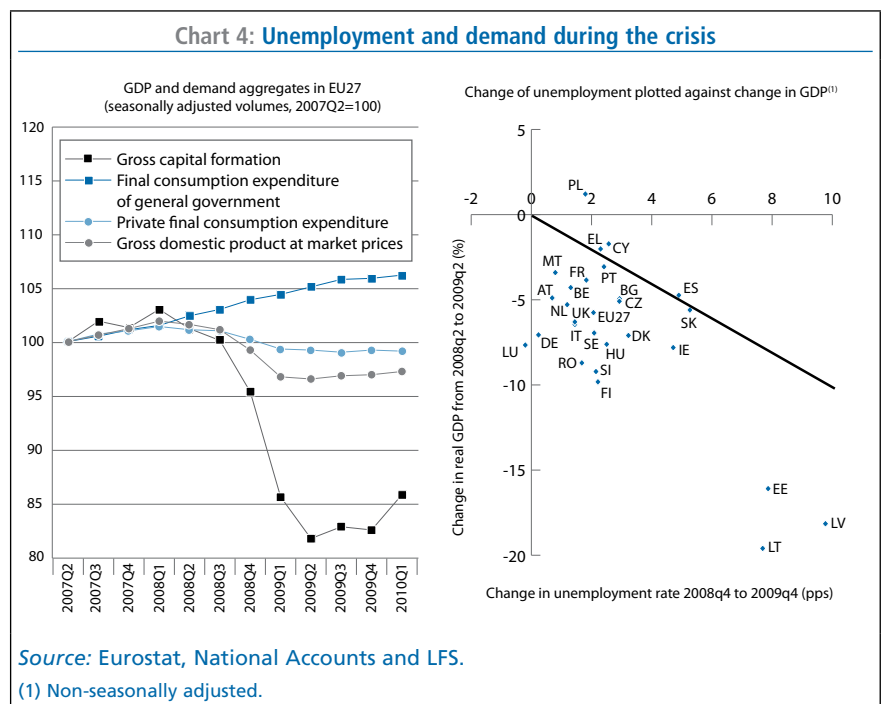
All in all, the overall discretionary fiscal stimulus to support household purchasing power constituted about 0.5 % of GDP in 2009, and is projected to amount to about 0.5 % of

GDP in 2010, - compared to the 0.2% of GDP in 2009 and 0.3% of GDP in 2010 available for measures supporting the smooth functioning of the labour market⁽⁴²⁾.

6. ASSESSMENT OF THE CRISIS-RELATED MEASURES

6.1. Stocktaking: The crisis, government intervention and employment

The crisis has seriously affected the economic performance of every EU Member State. The EU27 seasonally-adjusted real GDP slumped by as much as 5% in the first quarter of 2009 compared to first quarter of 2008. While a detailed analysis of the crisis and its employment impact is contained in the previous chapter of this report, this section serves as a reminder of some facts pertinent to further analysis.

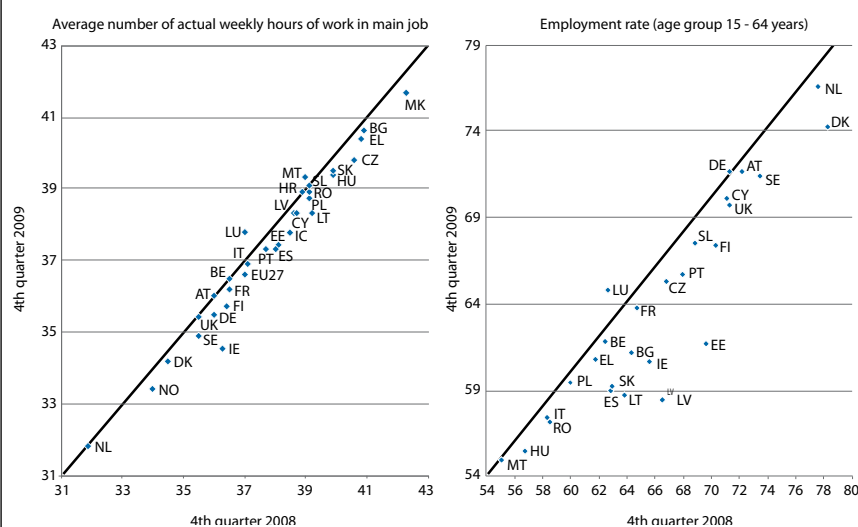


(40) From July 1st 2009 to December 31st 2011 to nine months for those who were previously eligible for unemployment benefit for four or six months (i.e. workers having worked one to nine years and 10 to 19 years respectively).

(41) See Box 3 in section 8.2 of Chapter 3 for more details on access to unemployment insurance and coverage of vulnerable groups.

(42) Including short-time working arrangements, training, placement, and other job-search help.

Chart 5: Development of average weekly working time and employment rates during the crisis: Plotting 4th quarter 2008 against 4th quarter 2009



Source: Eurostat LFS.

Though capital formation generally accounts for roughly a fifth of total GDP, Chart 4 (left) shows that the decrease in total demand was due to a large extent to a collapse in investment as the business climate deteriorated and as firms became more and more pessimistic about economic prospects. Indicators of business and market sentiment bottomed out in early 2009 however, and have recovered to their pre-crisis levels.⁽⁴³⁾ The chart also reveals that a huge increase in government expenditure designed to alleviate the economic and social impact of the crisis has served to prevent an even worse economic outcome.

Many of the government measures focused on the labour market are outlined above. Their main target was to prevent the slump in demand from pulling down employment. Most of them are temporary tools installed within the unemployment insurance system, or STWA

aimed at encouraging a reduction in working hours rather than the number of jobs.

Given the magnitude of the economic slowdown, it is obvious that these measures were most successful in EU Member States where job losses appeared comparably moderate. Chart 4 (right) plots the change of real GDP from the 2nd quarter of 2008 to the 2nd quarter of 2009 against the change in the unemployment rate from the 4th quarter of 2008 to the 4th quarter of 2009 (noting that employment has a time lag in reacting to changes in overall demand). It can be noted that, as a result of the extensive use of STWA in Germany (where the number of take-ups peaked at around 3% of the total workforce during 2009), the German labour market proved relatively resilient to the demand shock. But the picture varies considerably across Europe - in the Baltic countries a GDP slump of 16% or more led to a doubling

of the unemployment rate in only one year.

In fact, despite various measures facilitating the reduction of working hours, the sheer scale of the demand drop in 2009 brought reductions in both numbers employed and average hours worked, although there is no doubt that during the crisis the pressure to reduce staff was contained and alleviated to a considerable extent by the various schemes designed to provide compensation for reduced working time.

6.2. Potential medium-term impact: A micro-model simulation

6.2.1. Objective of the exercise

An overall assessment of the effectiveness of labour market policy instruments put in place or modified during the crisis will have to be made against a longer-term perspective, i.e. whether or not the jobs saved during the crisis will still exist in the medium term after the measures expire (which in most Member States would be by the end of 2010). Moreover, it is too early to provide evidence for the measures' overall effectiveness at this stage.

However, a simulation using the European Commission's Labour Market Model (LMM) offers some insight into the potential transmission paths and real-economy impacts of labour market policies which focus on the stabilisation of employment, including the reduction of working time. For an explanation of LMM see Box 8 and Annex 2 below.

(43) Sentiment indicators bottomed out at the beginning of 2009 and have recovered only recently to their pre-crisis levels (see EU Economic Sentiment Indicator in, for example, EU Employment Situation and Social Outlook, Monthly Monitor).

Box 8: Using the European Commission DG EMPL's Labour Market Model (LMM)

LMM is a dynamic computable general equilibrium model containing an in-depth description of the labour market (Berger et al, 2009). The current version of the model covers six Member States, namely Denmark, Germany, Italy, Austria, Poland and United Kingdom.

As an Overlapping Generations Model, it explains optimal behaviour of workers of different age groups, retirees and firms - all acting within an institutional framework that is described in detail. The model's principal objective is to estimate how an economy might react to changes in labour market policies or other external factors. Those labour market policies may include changes in direct and indirect taxes, lump sum transfers, ALMP, training subsidies, employment protection legislation (including firing taxes) and direct (financial) support to the employed and the employers.

LMM takes on board the complex decisions made by workers and firms. These include what skill level to choose before entering the working process, what amount of labour to supply or demand, at what age to retire, or on what level of wage to bargain. Such decisions are taken following a process of weighing the utility against the marginal costs associated to these efforts.

Firms and workers operate within explicit tax-benefit systems and institutional surroundings. However, the descriptive analysis above indicates the variety of details in the various policy measures implemented to overcome the crisis which a modelling exercise cannot hope to replicate. However, while LMM cannot tackle in-depth policies such as STWA or unemployment benefits, it is a tool for stylised modelling of "core types of action" which focus on employment stabilisation and the impact on working time. Given the variety of measures taken in the Member States, such a process has one major advantage in that it makes cross-country comparisons possible: the same core policy tool would be elaborated for every country considered. However, given LMM's technical limitations and its limited coverage (with six countries considered) it cannot cover the whole range of very detailed measures implemented by the Member States during the crisis. Nor can it deliver forecasts or produce results which could be generalised for the EU as a whole. The LMM is explained in greater detail in Annex 2 below.

Policy measures are simulated in a comparative-dynamic manner. For example, starting from an initial economic and labour market situation, a measure might be introduced for a period of three years, and then withdrawn. Using the model, it is possible to plot the policy outcome over time (in terms of GDP, output, consumption, capital formation, employment, unemployment and participation) against their initial levels in order to estimate the policy's likely fundamental impact.

Crisis related measures introduced to protect jobs at the expense of working time mostly envisage a certain (minimum) working time reduction. In other words, the number of hours to be reduced is being targeted ex-ante. In terms of LMM, however, the number of working hours is one of the core endogenous variables and should not be treated as a fixed exogenous policy parameter because it is a major determinant of effective labour volume, productivity and economic growth. Therefore, in order to be close enough to the

crisis related measures taken by the Member States, and to respect the model's core transmission mechanisms, we allow employment stabilisation and working time reduction to be effectuated endogenously by an in-work subsidisation paid from the state budget directly to workers.

This approach is possible because LMM explicitly depicts the responses of households and firms to changes in the institutional framework achieved through policy measures. In this context LMM implicitly takes into account the individual or institutional conditions under which both firms and workers bargain about wages. Firms offer higher wages if productivity is high or if subsidies are being paid to them, which could be conditioned to workers' training or just to their 'being employed'. Workers, on the other hand, are assumed to be willing to accept lower wages if the 'effort cost' of working decreases, if public wage supplements are paid to them, or if their relative fall-back position worsens because the value of public benefits are reduced.

6.2.2. In-work subsidisation paid workers across all ages

A direct wage subsidy paid to workers - as was applied during the crisis by a number of Member States in combination with working time reductions - will ease the pressure to bargain hard for higher wages. The supplement will make 'being employed' more attractive compared to 'being out of employment' as it improves workers' inside position and hence lowers their reservation wage levels. As a consequence, wages paid by the employer will decrease and will also pull down (endogenously) the number of hours worked.

We model a direct wage subsidy from the state budget to the workers equivalent to one percent of national average labour costs (which include gross wages and non-wage costs to the employer such as employer's social security contributions). This is done for all six Member States covered by the model since they have very different institutional arrangements in place. At first, we apply the measure to

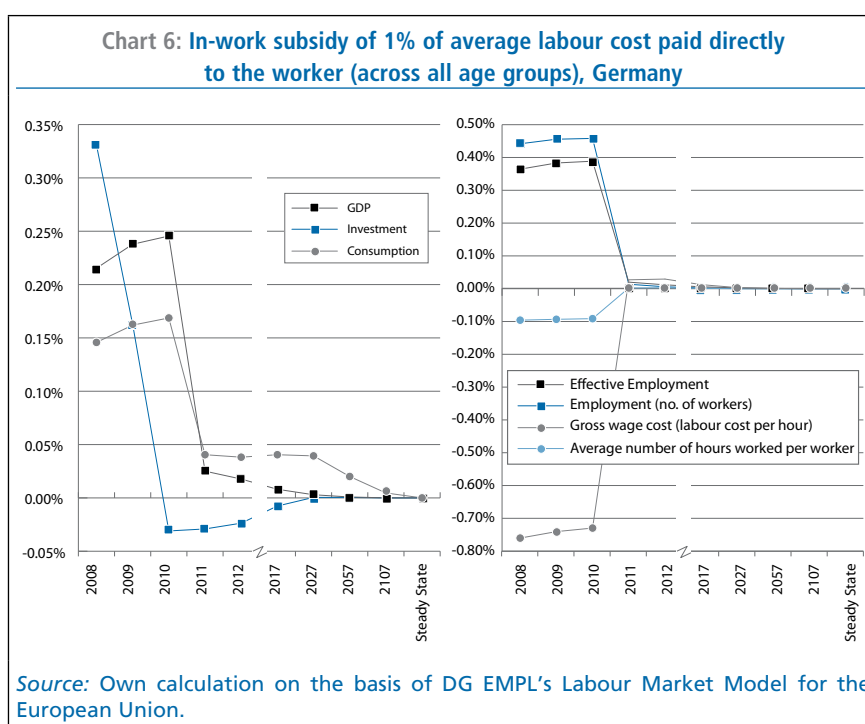
every worker, irrespective of age and wage level – an assumption that is justified in so far as public measures such as STWA are granted to companies rather than single workers. The measure is assumed to be financed by lump-sum taxes levied on households because they are supposed to be neutral in terms of labour allocation. It is assumed that the first year of projection be the year 2008,⁽⁴⁴⁾ i.e., the measure starts at the beginning of 2008 and expires at the end of 2010. All results are shown as level deviations from the steady state (the general equilibrium) to which the model was initially calibrated (without the measure). The core results are shown first for Germany in Chart 6. The transmission path is similar for all countries.

Clearly, a wage supplement paid to workers will increase consumption demand and GDP, (see Chart 6 left). At the same time, the extra subsidy paid on top of their wages will encourage workers to agree to lower wages paid by their employers. Their reservation wages decrease and, from the process of bargaining, lower market wages will be the consequence, (see Chart 6 right).⁽⁴⁵⁾ At given productivity levels, lower wages will foster employment in terms of workers employed, and unemployment will decrease. Effective employ-

ment (total hours worked) goes up due to the increased number of workers, but the shift in hours worked is less pronounced because workers reduce individual working time as a consequence of lower market wages and wage subsidies (which are independent of working hours). As increasing employment in the short term will tend to lower productivity, wages will also

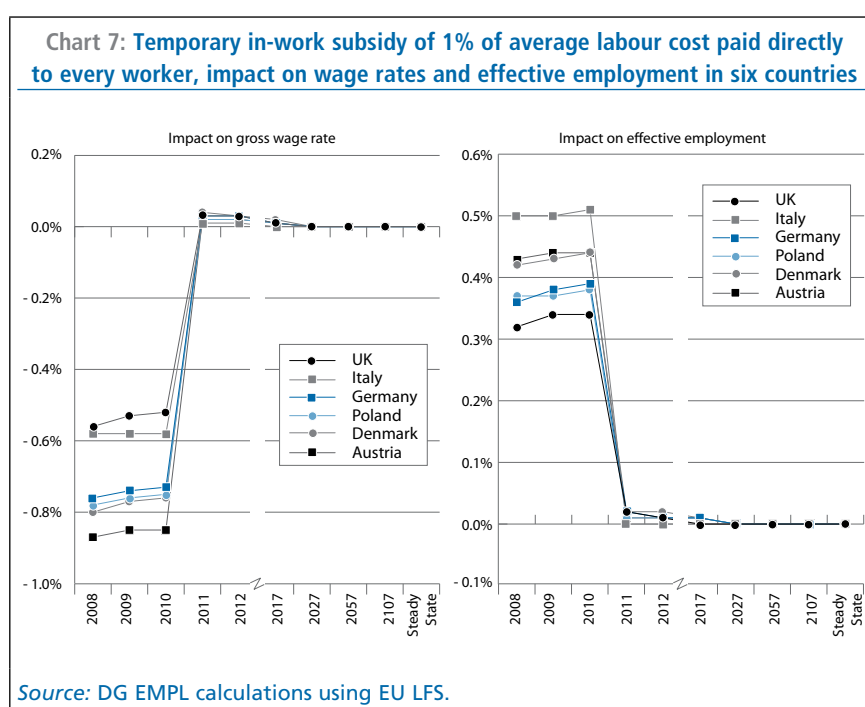
be lowered from the demand side of labour. In the wage bargaining process, firms' reservation wages decline as a consequence of the additional labour supply.

The effects in the other five countries are similar to those shown in Chart 6 for Germany. However, the magnitude of the impact varies to some extent across countries.



(44) It is important to note that though the measure is assumed to start in 2008, the reference scenario is not observed data (GDP, employment, wages etc) in that year but the result of the calibration. The model was calibrated for each of the six countries to an initial steady state. That is, the situation before taking action in the first year of simulation is assumed to be a long-term equilibrium to which the policy scenarios are then compared. In order to best reflect a long-term steady state in the initial situation, a huge amount of recent data (including micro data) is being used to reflect internals like the labour market status, firms' and workers' behaviour on the labour market, human capital formation, and country-specific institutional details. The initial situation is being assigned to the year 2008 as we know that many Member States started action in that year.

(45) The wage subsidy is not included in the calculation of gross market wages.



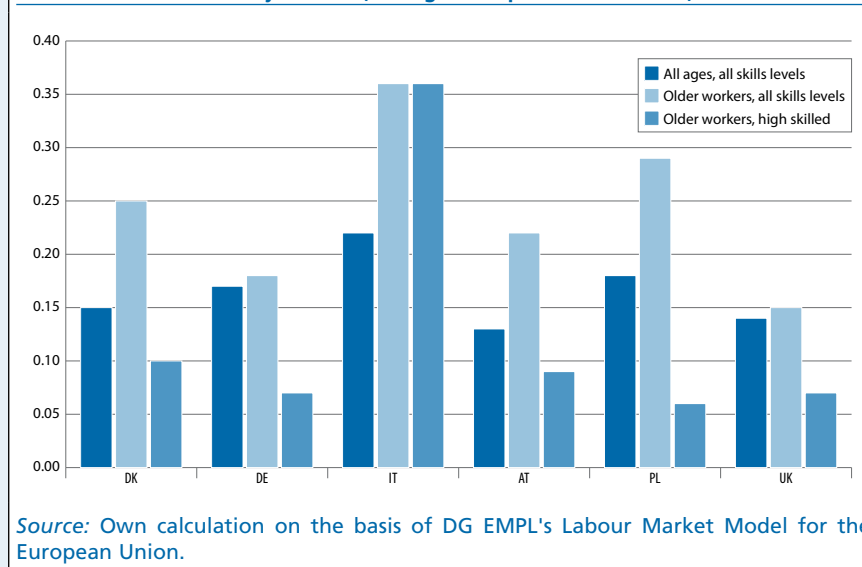
There are a number of factors that explain the cross-country differences. Among those:

- Differences in the levels of take-home wages, i.e., gross wages and wage taxes. The higher the take-home wage levels, the lower the relative significance of a given subsidy. Hence, a given in-work subsidy (assumed to be tax free) will trigger less pronounced decreases of workers' reservation wage in countries with relatively high take-home wages. Less pronounced wage decreases will cet. par. trigger less additional labour demand which will result in less significant employment gains.
- The retirement decision effect, as the subsidy will influence older workers' labour market participation (see Box 9). A given in-work subsidy will encourage more workers who are eligible to retire to postpone their retirement and stay in the labour market. Since older workers have higher wages, cet. par., there will be more people on higher wages in employment. As a consequence, countries where the retirement effect is strong tend to see only a comparably moderate decrease of wage levels as a result of the subsidy. The retirement effect will be the stronger the higher the level of seniority wage premium in the different countries.

Box 9: The impact of the in-work subsidy on labour market participation

The in-work subsidy clearly boosts a household's propensity to participate in the labour market. The stronger the disincentives to labour market participation in the initial situation, the more pronounced this boost is. These disincentives are reflected by a high implicit tax rate on labour participation. The implicit tax rate on participation takes on board the relative disadvantage of participating in the labour market compared to staying outside. It is influenced by the net retirement income (+), the tax rate on working income (+), the unemployment benefits (+) and subsidies paid to workers (-).

Chart 8: Change of older workers participation rate (aged 55 -69) in ppts after applying a temporary in-work subsidy of 1% of average labour cost paid directly to every worker (average over period 2008-2011)



Introducing a new in-work subsidy lowers the implicit tax rate of labour market participation, the relative extent of the decline being highest where the wage income (the product of wage levels and the number of working hours) is lowest. For example, if labour income is comparatively low because working hours are low, then an in-work subsidy will have a relatively stronger positive impact on labour market participation.

6.2.3. In-work subsidisation restricted to young workers

The above analysis considers a subsidy paid directly to workers irrespective of their age. In this section the assumption is that payments are restricted to workers under 25, while the individual cost of the subsidy is maintained at one percent of average labour cost. The situation will

be plotted against the initial simulation results where subsidy was provided to every worker. We restrict the analysis to the case of Germany as the mechanisms are the same in all countries.

The budgetary cost of the subsidy, if the measure is restricted to the young amounts to some 7% of the cost of the unrestricted subsidy. The proportions

in terms of economic expansion and employment gains are considerably higher (see Chart 9). In other words, relative to the expenditure involved, the effectiveness of a subsidy targeted at young workers appears to be higher than that of a subsidy given to every worker. This is explained by the wage structure across age groups. The wage levels of young workers are lower than the average for all workers. Hence, a given amount of subsidy provides a relatively stronger incentive to work and will encourage more younger than older workers to search for a job and/or to remain in employment.

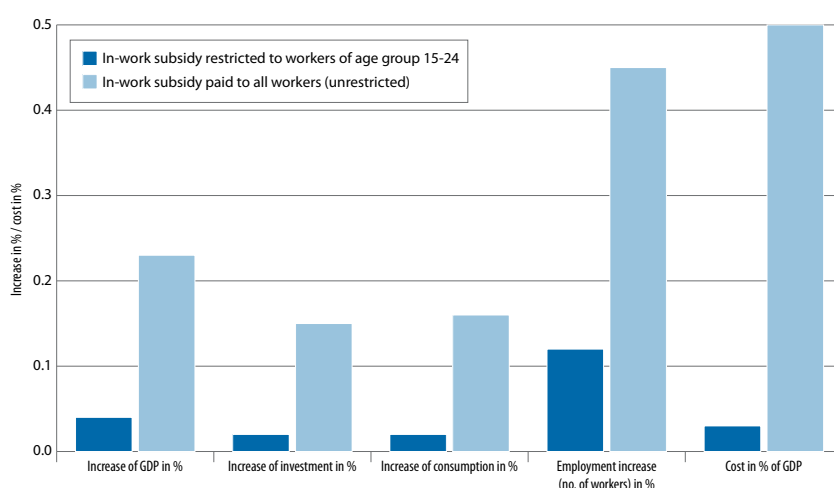
Moreover, even if only the subsidy's employment impact among young workers is considered, the employment gain for the young is more significant if the measure is restricted to them than without restriction (see Chart 10).

This result is achieved because workers of different age groups supply labour in a competitive environment, which means that there is a substitution effect across age groups. If employment of the young becomes relatively more attractive to firms because their wages are lower as a result of the subsidy, then demand for the young will increase relative to that for other age groups (in the restricted scenario the substitution would be expected to cause a slight decline in employment levels in other age groups).

6.2.4. Tentative conclusions from the micro-model simulation

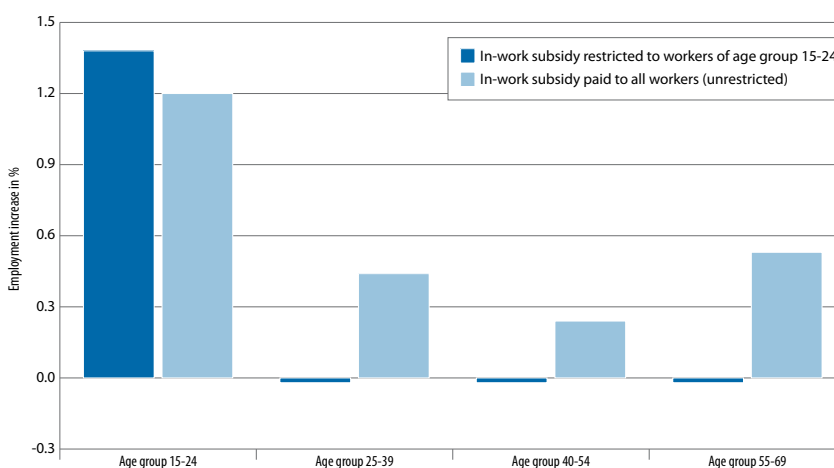
Overall, for the countries considered, wage subsidies would impact positively on employment levels. Over the period during which the measure is applied, it leads to downward pressure on wages paid by employers and increases demand for workers. On the supply side, the in-work subsidy improves workers' inside position which, in turn, triggers increased participation.

Chart 9: Budgetary cost, demand and employment effect of a temporary in-work subsidy of 1% of average labour cost paid directly to the worker - if paid to every worker or restricted to workers aged between 15 and 24 years, average over the period 2008 - 2011, Germany



Source: Own calculation on the basis of DG EMPL's Labour Market Model for the EU.

Chart 10: Employment gains after a temporary in-work subsidy of 1% of average labour cost paid directly to the worker - if paid to every worker or restricted to workers aged between 15 and 24 years, average over the period 2008 - 2011, Germany



Source: Own calculation on the basis of DG EMPL's Labour Market Model for the EU.

As a result, employment levels rise and unemployment is reduced. Given the boost to employment, investment is increased as capital intensity will temporarily drop below its steady-state equilibrium.

Temporarily supporting employment could therefore be seen as an appropriate means to respond to the crisis. However, it has to be recognised that it is a costly labour market policy instrument in budget terms. Over three years of an active policy, if support were granted on an unrestricted basis to every worker, the annual cost of the measure could amount to 0.5% to 0.6% of GDP per year⁽⁴⁶⁾ for the countries considered.

This leads to the conclusion that:

- In order to be cost efficient and to focus on specific target groups, the option of restricting in-work subsidy to such groups appears most attractive. This appears to be particularly true in the case of young people, given that their relatively low wages mean that the subsidy offers a significant incentive to take up work.
- Making anti-cyclical measures temporary is important in order to maintain the sustainability of public finances and avoid creating counter-productive incentives for companies. Employers might internalise the 'fixed' subsidy when bargaining with workers on wage levels, and may be tempted to seek unjustifiably high shares of the welfare surplus generated by the subsidy. The effect on workers is ambiguous. It can be assumed that workers acquire knowledge and skills when employed which would favour productivity gains.⁽⁴⁷⁾ However, if

workers become accustomed to independent in-work subsidisation they may reduce performance. In the long-run, productivity losses might be the consequence.

6.3. Policy considerations

The above analysis has presented detailed evidence concerning the policies implemented to mitigate the adverse effects on the labour market of the economic crisis, and assessed the effectiveness and equitability of the measures taken. It shows that, although a variety of measures have been implemented by the Member States, some measures, such as STWA, have been more prominent than others, such as public sector employment creation. Moreover, due to their specific nature, measures such as STWA have been more effective in the initial phase of the downturn while others, such as the use of temporary subsidies (particularly those targeted at encouraging hiring) appear to be more appropriate in the recovery phase since they help to speed up job creation when production rebounds.

If STWA avoid redundancies, they can save firing and (re)hiring costs for firms, prevent the loss of firm-specific human capital, and enhance workers' employability and security by providing them with a (temporary) guarantee of income security, even if the reduced number of hours worked leads to a relative pay cut. On the other hand, these arrangements also pose the risks that enterprises become over-staffed, necessary restructuring is delayed, workers lose the incentive to upgrade their skills, deadweight losses accumulate, and funds get diverted from productive purposes such as training. In order to limit such risks, the analysis suggests that arrangements should apply only to companies with strong business fundamentals, that the duration and eligibility criteria should be subject to regular review, and employees

should be given appropriate training to enhance their employability.

Temporary wage subsidies have a rather limited impact on aggregate employment levels but, if targeted at workers at the margin of the labour market, these measures may strengthen social cohesion. Similarly, reductions in social contributions targeted at disadvantaged workers may increase employment amongst this group. In all cases, however, the socio-economic gains of these measures have to be weighted against the fiscal burden they incur.

The creation of temporary jobs in the public sector has been less developed but has been targeted at specific vulnerable groups. The effectiveness of such measures is generally seen to be limited owing to high risks of adverse impacts on labour supply in the private sector, but they could be strengthened by providing the employees with adequate training opportunities and with incentives to search for work in the private sector.

Measures to upgrade skills and improve job matching have also been implemented. The public employment services have intensified the provision of information, placement and active support services, especially for young unemployed people. Member States where unemployment is expected to continue to rise are being encouraged to increase the capacities of their PES in order to match the provision of high-quality job-matching services with actions to promote intensification of job seeking.

As the prospects for economic recovery strengthen, most Member States have signalled that they will withdraw the crisis-related labour market measures by the end of 2010 or early 2011. In this situation, the evidence suggests that the gradual phasing out of the labour market recovery measures should be accompanied by a strengthening of activation, training and other flexicurity policies in order to facilitate job reallocation.

(46) I.e. change of net transfers to households, as we have assumed lump-sum levies put on households to be the source of finance.

(47) The effect of skill acquisition is captured by the model. Simulations of a permanent in-work wage subsidy across all age groups resulted in long-term overall productivity gains (productivity losses were only noted for the low-skilled workers).

As the economic downturn has also highlighted some structural labour market problems, this suggests that the focus of employment policies could be positively re-orientated in order to reduce structural unemployment, improve skill formation, strengthen social inclusion and reduce poverty.

7. EMPLOYMENT POLICY ACTIONS BEYOND 2010

The overall objective of EU labour market policies is not to return to the modest employment levels of the pre-crisis period, when the overall average employment rate peaked at a moderate 66%, with only 59% of women of working age, and 46% of older workers (55-64) in work. Rather the objective is to attain the high levels of employment and social cohesion that characterise a smart, sustainable and inclusive economy. In this perspective, it is clearly appropriate to envisage a gradual phasing out of most of the crisis-related employment measures and a progressive strengthening of labour market policies that reduce structural unemployment rates, increase labour participation, strengthen the re-allocation of labour towards a smart, sustainable and inclusive economy, and promote social cohesion by targeting specific groups of workers.

A coordinated approach across Europe, with the active involvement of social partners, is seen as essential for reaching these objectives.

7.1. Phasing out crisis-related labour market measures

Although the Member States differ from each other in terms of the constraints and initial conditions they face, and although labour market policies are only part of a more comprehensive policy package that bolsters potential growth

and employment, improves competitiveness and supports fiscal consolidation⁽⁴⁸⁾, some general principles can be formulated regarding the phasing out of the crisis-related labour market measures and the phasing in of structural labour market measures.

Firstly, a distinction can be made between labour market measures that have to be phased out gradually once the recovery is secured, such as short-time working arrangements, and measures that, due to their positive impact on the structural working of the labour market, should be maintained and reinforced, such as cuts in labour costs, increases in training, activation and other flexicurity policies that facilitate job reallocation and the re-skilling of workers⁽⁴⁹⁾.

Secondly, the risks associated with the timing of the phasing out of the labour market measures should not be under-estimated. Too early a withdrawal may undermine confidence and thus depress aggregate demand with consequent knock-on effects on companies. Too late a withdrawal on the other hand, may delay the necessary structural adjustments, cause significant hysteresis effects in the labour market, and contribute a significant additional burden to the public finances.

Thirdly, the phasing out should reflect the situation and constraints of the Member States, with the Member States that have advanced furthest in their recovery able to move faster than the Member States where the recovery is still to come and where unemployment is expected to continue to increase – provided, of course, the fiscal position allows it.

Fourthly, as the fiscal constraints intensified during the course of the crisis, it became ever more important to improve the cost-effectiveness of labour market measures by strengthening their targeting and timing.

(48) See European Commission (2009d).

(49) See Council of the European Union (2010).

Fifthly, due consideration also needs to be given to the social dimension of the exit strategy, including the central issue of gender equality as part of the foundation to strengthen growth, employment and social cohesion in the long term⁽⁵⁰⁾. In any case, particular attention needs to be paid to differences in employment patterns between women and men: sector and occupational segregation, the greater presence of women in part-time jobs and in the public sector, and the lower numbers of women in self-employment. In this respect it should be noted that, due to their high concentration in the public sector, women could be disproportionately affected by job losses when budgetary spending is cut as part of fiscal consolidation⁽⁵¹⁾.

7.2. Reduce structural unemployment and increase labour market participation

During the economic downturn, unemployment rates rose significantly in most Member States. Although these increases were primarily cyclical, the crisis carries significant risks for further increases in the structural unemployment rate due to hysteresis effects (see Box 10).

In order to avoid that unemployed people become long-term unemployed once the economy recovers, it is recommended that policy reforms develop along flexicurity lines by strengthening active labour market policies, promoting life-long learning, and modernising labour laws as well as social security systems.

Moreover, temporary measures such as the crisis-related increases in the level and duration of unemployment benefits need to be scaled-down once the recovery gathers momentum in order to strengthen the incentives to search for a job.

(50) See for instance Smith and Bettio (2008) and Löffström (2009).

(51) See European Commission (2010b).

This phasing out should be accompanied, however, by a strengthening of activation and training policies so that the adjustment costs can be tempered, and should be made conditional upon the developments in overall economic activity. In any case, activation and training policies should aim at reducing long-term welfare benefit dependency and equip the workforce with the skills required for new jobs so as to facilitate the transition to areas of growing activity.

Preventing such hysteresis effects will not be sufficient to promote strong employment growth when the economy recovers. Indeed, as a significant number of Member States have made extensive use of short time working arrangements during the downturn, it is to be expected that, when the economy recovers, a significant part of the increases in effective labour demand will be met by adjustments in the stock of hoarded labour. To temper the impact of this on employment opportunities for the unemployed, targeting employees at the margin of the labour market

with, for example, temporary wage subsidies and cuts in non-wage costs, might be considered.

Alongside the problem of containing rises in unemployment, is the challenge of increasing the supply of labour overall. So far, the effects of the crisis in reducing total labour supply have been rather modest. However there are important feedbacks between the levels of unemployment and employment -as high unemployment rates persist, some of the unemployed get discouraged and leave the labour force. Moreover, as unemployment increases, other people get discouraged and do not enter the labour market at all.

Policies to support increases in labour force participation include making work pay policies, promoting active ageing, gender equality and labour market integration of young people, disabled, migrants and other vulnerable groups.

Finally, it should also be noted that, as firms remain uncertain about the sustainability of the recovery and

liquidity constraints continue to prevail, the use of temporary work contracts is likely to remain significant, despite the weaknesses associated with them, as described in detail in Chapter 3. This may then limit the productivity growth potential during and after the recovery as temporary contracts are usually associated with limited training opportunities for workers.

All in all, setting the conditions that can limit any further increase in structural unemployment may strengthen the recovery as it will have a positive effect on aggregate demand through higher consumer confidence, thereby reinforcing the increase in employment.

7.3. Support specific groups of employees

Several groups of workers could be targeted in order to attract and maintain more people in employment and promote social inclusion.

7.3.1. Older workers

If employment levels of older workers are to be maintained or increased, there is a need to keep them close to the labour market, and avoid measures that may alleviate their unemployment in the short run, but which compromise their potential employment in the longer run, such as early retirement or easier access to long-term sickness or disability schemes which are difficult to reverse. This requires better employment opportunities for older workers, supporting their skills' upgrading and improving incentives to continue working through the reform of pension systems.

7.3.2. Women

In order to improve and increase the integration of women into the labour market, the balance between work and private life should be improved.

Box 10: Hysteresis effects in labour markets

A central thesis of classical economic theory⁽¹⁾ is that the structural unemployment rate (or 'natural rate of unemployment') is solely determined by supply factors, such as minimum wages, the tax wedge, the user cost of capital, employment protection laws, barriers to labour mobility, product market competition and frictions in matching the unemployed with job vacancies, and not by demand. When the unemployment rate is higher than the structural unemployment rate, wages will decrease so that labour demand increases and unemployment decreases. This wage adjustment will occur until unemployment has returned to its structural level (see Layard et al. 2005).

Ball (2009) is one of those who reject the hypothesis that the natural rate of unemployment is independent of the level of aggregate demand, and argues that hysteresis effects may be operating in times of economic downturn in ways that prevent unemployment returning to its initial structural rate. Indeed, when unemployment is above its initial structural level, wages will decrease but they will decrease by less than in the case of the neo-classical model. This is due to the fact that, when workers become unemployed their disconnection from work produces a diminution and degeneration of their skills, a reduction in their motivation to search for a job and a general social stigmatisation. As a result, there will be less downward pressure on wages than there would otherwise be (as above) causing the unemployment rate to settle at a new but higher rate than predicted by the model without hysteresis effects.

In this context, Furceri and Mourougane (2009) identify institutional factors such as Employment Protection Legislation, average replacement ratio and product market regulation as important determinants of the adjustment pattern in the aftermath of a downturn.

(1) See for instance Friedman (1968).

This can be achieved through a variety of measures, including better child care provision, more flexible working arrangements, tax credits for women returning to work, better parental leave regulation, better protection against dismissal for women on maternity leave, more employment friendly income taxation for second earners in a household, support services to encourage re-entry into the labour market for women who have taken career breaks to raise a family and better balancing of roles of partners in households⁽⁵²⁾.

Here it should also be noted that the different sectoral concentration of male and female employment has generated a more pronounced decline in male employees than in female employees.⁽⁵³⁾ Nevertheless, it is to be expected that, when the economy recovers, growth in the male dominated sectors, such as construction and manufacturing, will outstrip growth in female dominated sectors such as public sector, health, education and the social sector, as these sectors will be more affected by the upcoming fiscal tightening.

7.3.3. Youth

The employment prospects of young people, especially of those not in employment, education or training, could be enhanced by improving vocational education and training, apprenticeships, reducing early school leaving, promoting geographical mobility, improving job matching, targeting employment subsidies and supporting young entrepreneurs. Special attention could be given to school drop-outs by giving them access to appropriate active labour market policies, such as job-search assistance and training. In exchange for income support, young jobseekers could be required to search actively for jobs and be given opportunities to participate in

(52) See Morley (2010).

(53) See Section 3 of Chapter 1 in this report.

job-placement activities and in training programmes.

7.3.4. People on non-standard contracts

Labour market segmentation remains a structural challenge in several Member States⁽⁵⁴⁾. Such segmentation is harmful and inefficient as it carries the risk of making jobs more precarious, damaging sustainable integration into the labour market and limiting the accumulation of skills.

Policies based upon flexicurity principles, in which the role of the social partners is appropriately recognised, constitute an important part of the strategy to make labour markets more inclusive by better aligning working conditions for workers on temporary and permanent contracts by simultaneously enhancing the flexibility of standard contracts and the security of non-standard contracts.

7.3.5. Jobless people

Joblessness and in-work poverty⁽⁵⁵⁾ are some of the key drivers of social exclusion and poverty. It is important to continue to focus on the people at the margin of the labour market who, especially in times of crisis, experience significant difficulty in obtaining and retaining a good job.

Several employment policies contribute to the promotion of social cohesion and exclusion of poverty, provided they are well co-ordinated with other economic and social policies. Such employment policies include the strengthening of job search assistance, training and education, temporary public sector employment creation, temporary

(54) For a more detailed analysis of the labour market segmentation issues with a special emphasis on youth employment, see Chapter 3 of this report.

(55) Such as recurrent unemployment, involuntary part-time or seasonal work, and low wages.

hiring subsidies, supporting start-ups in self-employment by the unemployed, reducing employers' costs of hiring, reinforcing gender equality, and making work pay⁽⁵⁶⁾.

Nevertheless, the risks of deadweight costs and substitution effects for these measures are high, and they are only likely to be effective if they lead to an early decision by an employer to hire or maintain staff.

Despite the tight fiscal constraints in some Member States, it should also be recognised that the expenditure on ALMP could be increased as its potential return is still high, with the possibility to expand tax bases that can generate additional tax revenue which outweighs increases in fiscal outlays.

7.4. Invest in skills upgrading and strengthen labour market matching

Key drivers to develop a skilled workforce include the strengthening of training and education⁽⁵⁷⁾ targeted at future labour market needs so as to increase the learning mobility of young people and teachers while at the same time promoting

(56) More particularly, the Europe 2020 strategy foresees in its Flagship Initiative: "European Platform against Poverty" inter alia the design and implementation of programmes to promote social innovation for the most vulnerable, in particular by providing innovative education, training, and employment opportunities for deprived communities, to fight discrimination (e.g. against the disabled), and to develop a new agenda for migrants' integration to enable them to take full advantage of their potential, and has the Member States define and implement measures addressing the specific circumstances of groups at particular risk (such as one-parent families, elderly women, minorities, Roma, people with a disability and the homeless) . See <http://ec.europa.eu/eu2020/pdf/COM-PLT%20EN%20BARROSO%20%20%20007%20-%20Europe%202020-%20EN%20version.pdf> for more details on the Europe 2020 strategy.

(57) I.e. covering all sectors from early childhood education and schools through to higher education, vocational education and training, as well as adult training.

measures that increase incentives to participate in these schemes. Efforts to support those with low skills and increasing the employability of older workers should be at the core of such policies.

Given the uncertainty associated with future skill needs, it could also be appropriate to promote more general training and longer courses rather than very specific training until the economy fully recovers (OECD (2009)).

Better labour market matching requires the introduction of new training paths that meet the future demands posed by an ageing population, globalisation, economic greening, and technological progress, and the introduction of measures that improve the occupational, sectoral and geographic mobility of the workforce.

The certification of qualification levels could be promoted as a useful instrument for increasing the mobility of workers. If a worker is laid off, part of the value the previous employer put on their experience and skill levels is liable to be lost, while a new prospective employer may have difficulties assessing the value of the applicant's experience and skills. The same holds for (PES provided) training activities; their value will be clearer when a recognised completion certificate is provided.

8. CONCLUSIONS

Following the onset of the downturn, policy makers in the Member States of the European Union took a variety of decisions to introduce new labour market policies, or to modify or strengthen existing ones in order to maintain employment, create jobs, upgrade skills, increase access to employment, and support households.

A major concern of the EU and its Member States was to develop the policy responses in ways that did not compromise the long-term employment and growth potential. As such, labour market policies were designed to be implemented in a temporary, timely, targeted, fair and co-ordinated way, and in line with flexibility principles as well as with the country-specific recommendations for growth and jobs identified under the Lisbon Strategy. Taking these criteria into account, the main conclusions of the assessment of the crisis-related measures are as follows.

Most measures are expected to expire by the end of 2010 – or later if the recovery is slower than projected. However, measures such as hiring subsidies, job-search assistance and training are expected to continue during the early phase of the recovery which may well carry on until the end of 2011, as their effectiveness reaches its full potential in this phase. However, it should also be noted that maintaining the arrangements for too long poses the risk that necessary restructuring is delayed, enterprises become over-staffed, workers lose the incentive to upgrade their skills, deadweight losses accumulate, and funds are diverted from other useful purposes such as training.

When assessing the timeliness of the crisis-related measures, a distinction has to be made between, on the one

hand, measures that are more effective at the beginning of the crisis than at the end-phase, such as short-time working arrangements, and, on the other hand, measures that have greatest impact if they are implemented when the economy starts to recover, such as wage subsidies. Nevertheless, some measures maintain their effectiveness irrespective of the stage of the recovery, such as job search assistance and training.

By targeting people at the margins of the labour market, the effectiveness and fairness of the crisis-related labour market measures are often strengthened. For instance, in order to minimise the fiscal cost and maximise their fairness, hiring subsidies were targeted at specific groups at the margin of the labour market.

Nevertheless, although there are strong indications that the various crisis-related labour market measures had a positive impact on the variability of employment during the economic crisis, it is too early to determine whether employment saved by these measures will endure once the crisis recedes.

Given the socio-economic complexity of the issue, it should be clear that EU-wide mutual learning, the exchange of good practice and a constructive dialogue with social partners should form the main driving forces for strengthening the effectiveness and equitability of the recovery measures.

Finally, the phasing out of the crisis-related measures should take into due consideration the concrete situation and constraints of the Member States and be complemented by the phasing in of structural measures that are aimed at reducing structural unemployment, increasing labour market participation, developing a skilled workforce, promoting social inclusion and combating poverty.

REFERENCES

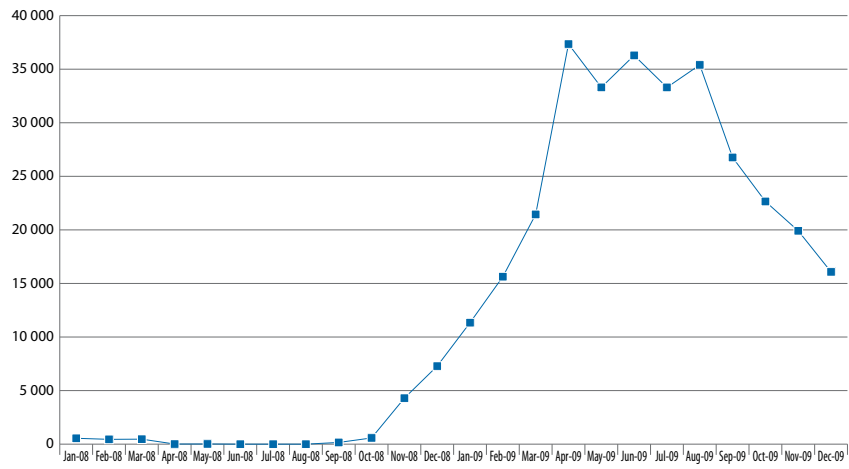
- Abraham, K. and S. Houseman (1994), 'Does Employment Protection Inhibit Labor Market Flexibility? Lessons from Germany, France, and Belgium.' Edited by R. Blank. *Social Protection Versus Economic Flexibility: Is There a Tradeoff?* Chicago: University of Chicago Press. <http://www.upjohninst.org/publications/wp/93-16.pdf>
- Algan, Y., P. Cahuc, and A. Zylberberg (2002), 'Public employment and labour market performance. Does it increase unemployment?', *Economic Policy*, No. 17, pp. 7-65.
- Arpaia, A., N. Curci, E. Meyermans, J. Peschner and F. Pierini (2010), 'Short Time Working Arrangements as Response to Cyclical Fluctuations', a joint paper, prepared in collaboration by Directorate-General for Employment, Social Affairs and Equal Opportunities and by Directorate-General for Economic and Financial Affairs, available at <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=843&furtherNews=yes>
- Arulampalam, W., P. Gregg and M. Gregory (2001), 'Is Unemployment Really Scarring? Effects of Unemployment on Wages', *Economic Journal*, 111, pp. 585-606.
- Bach, H.-U. and E. Spitznagel (2009), 'Kurzarbeit: Betriebe zahlen mit - und haben was davon', *Institut für Arbeitsmarkt- und Berufsforschung, IAB Kurzbericht 17/2009*, available at <http://doku.iab.de/kurzber/2009/kb1709.pdf>
- Ball, L (2009), 'Hysteresis in Unemployment: Old and New Evidence', *NBER Working Paper 14818*, available at <http://www.nber.org/papers/w14818>
- Bell, B., R. Blundell and J. Van Reenen (1999), 'Getting the Unemployed Back to Work: The Role of Targeted Wage Subsidies', *International Tax and Public Finance*, Vol. 6, No. 3.
- Berger, J., Keuschnigg, C., Keuschnigg, M., Miess, M., Strohner, L., Winter-
Ebmer, R., 'Modelling of Labour Markets in the European Union', *Final Report to the European Commission*, DG EMPL, Parts I - IV (2009)
- Bernhard, S., H. Gartner and S. Gesine (2008), 'Wage Subsidies for Needy Job-Seekers and Their Effect on Individual Labour Market Outcomes after the German Reforms', *IZA DP No. 3772*, available at <http://ftp.iza.org/dp3772.pdf>
- Brodsky, M. (2000), 'Public-service employment programs in selected OECD countries', *Monthly Labor Review*, October 2000 available at <http://www.bls.gov/opub/mlr/2000/10/art4full.pdf>
- Calavrezo, O., R. Duhautios, and E. Walkowiak (2009), 'The Short-Term Compensation Program in France: An Efficient Measure against Redundancies?', *Working paper No. 114*, http://www.cee-recherche.fr/fr/doctrav/114-chomage_partiel_licenciements_economiques.pdf
- Card, D., J. Kluve and A. Weber (2009), 'Active Labor Market Policy Evaluations: A Meta-Analysis', *IZA Discussion Paper*, No. 4002, available at <http://www.laborrn.at/wp/wp0902.pdf>
- Carley, M. and P. Marginson (2010), 'Negotiating the Crisis: Social Partner Responses', Chapter 3 in *Industrial Relations in Europe 2010 report*.
- Cedefop (2010), 'Skills supply and demand in Europe: medium-term forecast up to 2020', available at http://www.cedefop.europa.eu/EN/Files/3052_en.pdf
- Choulet, C. (2006), 'Public jobs creation and Unemployment dynamics', *Cahiers de la MSE*, 2006-26, Centre d'Economie de la Sorbonne, available at <ftp://mse.univ-paris1.fr/pub/mse/cahiers2006/V06026.pdf>
- Crimmann, A. and F. Wießner (2009), 'Wirtschafts- und Finanzkrise: Verschnapfpaufe dank Kurzarbeit', Institut für Arbeitsmarkt- und Berufsforschung, *IAB Kurzbericht 14/2009*, available at <http://doku.iab.de/kurzber/2009/kb1409.pdf>
- Council of the European Union (2010), 'Council conclusions on exit strategies for crisis-related measures in labour and product markets', 3003rd Economic and Financial Affairs Council meeting Brussels, Council meeting Brussels, 16 March 2010 available at http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ecofin/113391.pdf
- Council of the European Union (2009), 'Council Conclusions on Flexicurity in times of crisis', Employment, Social Policy, Health and Consumer Affairs, 8 June 2009, available at http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/lsa/108369.pdf
- Deeke, A. (2005), 'Kurzarbeit als Instrument betrieblicher Flexibilität', Institut für *Arbeitsmarkt- und Berufsforschung*, IAB Forschungsbericht 12/2005, Nürnberg, available at <http://doku.iab.de/forschungsbericht/2005/fb1205.pdf>
- Demekas, D. and Z. Kontolemis (2000), 'Government employment, wages and labour market performance', *Oxford Bulletin of Economics and Statistics*, Vol. 62, pp. 391-414.
- European Commission (2010a), 'Combating poverty and social exclusion. A statistical portrait of the European Union 2010', available at http://epp.eurostat.ec.europa.eu/cache/ItalyY_OFFPUB/KS-EP-09-001/EN/KS-EP-09-001-EN.PDF
- European Commission (2010b), 'Report on equality between women and men', available at <http://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=447&type=2&furtherPubs=no>
- European Commission (2009a), 'Economic Crisis in Europe: Causes, Consequences and Responses', *European Economy 7-2009*, available at http://ec.europa.eu/economy_finance/publications/publication15887_en.pdf

- European Commission (2009b), 'A Shared Commitment for Employment', Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of Regions, COM(2009) 257 final available at <http://ec.europa.eu/social/BlobServlet?docId=2798&langId=en>
- European Commission (2009c), 'Council Recommendation on the 2009 update of the broad guidelines for the economic policies of the Member States and the Community and on the implementation of Member States' employment policies. Volume I' COM(2009) 34/2, available at http://ec.europa.eu/growthandjobs/pdf/european-dimension-200812-annual-progress-report/annualass_en.pdf
- European Commission (2009d), 'Which way out? Developing crisis exit strategies', *European Economy News*, No. 15, available at http://ec.europa.eu/economy_finance/een/pdf/een_015_en.pdf
- European Commission (2009e), 'The EU's response to support the real economy during the economic crisis: an overview of Member States' recovery measure', *European Economy, Occasional paper* no; 51, available at http://ec.europa.eu/economy_finance/publications/publication15666_en.pdf
- European Commission (2009f), 'European SMEs under Pressure, Annual Report on Small- and Medium-Sized Enterprises' available at http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/performance-review/pdf/dgentr_annual_report2010_100511.pdf
- European Commission (2008a), 'A European Economic Recovery Plan', Communication from the Commission to the European Council, COM(2008) 800 final, available at http://ec.europa.eu/economy_finance/publications/publication13504_en.pdf
- European Foundation for the Improvement of Living and Working Conditions (2009), 'Social dialogue and the recession', available at <http://www.eurofound.europa.eu/publicdocs/2009/107/en/1/EF09107EN.pdf>
- Flechsenhar, H.-R. (1979), 'Kurzarbeit - Strukturen und Beschäftigungswirkung', *Institut für Arbeitsmarkt- und Berufsforschung*, Mitteilungen aus der Arbeitsmarkt- und Berufsforschung (Special Editon, 12), http://doku.iab.de/mittab/1979/1979_3_MittAB_Flechsenhar.pdf
- Friedman, M. (1968), 'The Role of Monetary Policy', *The American economic Review*, Vol. 58, No. 1, pp. 1-17.
- Furceri, D. and A. Mourougane (2009), 'How Do Institutions Affect Structural Unemployment In Times Of Crises?', *OECD, Economics Department Working Paper* No. 730.
- Gesine, S. (2009), 'Employer wage subsidies and wages in Germany: some evidence from individual data', *Institut für Arbeitsmarkt- und Berufsforschung*, IAB Discussion Paper 9/2009, available at <http://ideas.repec.org/p/iab/iabdpa/200909.html>
- Gianella, C., I. Koske, E. Rusticelli and O. Chatal (2009), 'What Drives the NAIRU? Evidence from a Panel of OECD Countries', *OECD Economics Department Working Paper*, No. 649, OECD Publications, Paris.
- Glassner V. and Keune M. (2010) 'Negotiating the crisis? Collective bargaining in Europe during the downturn' *Industrial and Employment Relations Department Working Paper No. 10*, International labour Organisation.
- Guichard, S. and E. Rusticelli (2010), 'Assessing the Impact of the Financial Crisis on Structural Unemployment in OECD Countries', *OECD Economics Department Working Papers*, forthcoming.
- Hamermesh, D. (1996), *Labor Demand*, Princeton University Press, Princeton.
- Hart, R. and J. Malley (1996), 'Excess Labour and the Business Cycle: A Comparative Study of Japan, Germany, the United Kingdom and the United States', *Economica*, pp. 325-342.
- Institut für Arbeitsmarkt- und Berufsforschung (IAB) (2009), "Die Krise wird deutliche Spuren hinterlassen", *IAB Kurzbericht*, 20/2009 available at <http://doku.iab.de/kurzber/2009/kb2009.pdf>
- International Labour Organisation (ILO) (2009), 'Public Employment Services Responses to the Global Economic Crisis' available at http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---ifp_skills/documents/publication/wcms_117382.pdf
- International Labour Organisation (ILO) (2009), 'Recovering from the Crisis: A Global Jobs Pact', available at http://www.ilo.org/public/libdoc/ilo/2009/109B09_101_engl.pdf
- Jaenichen, U. and S. Gesine (2007), 'The Effectiveness of Targeted Wage Subsidies for Hard-to-place Workers', *Institut für Arbeitsmarkt- und Berufsforschung, IAB Discussion Paper*, No. 16/2007 available at <http://doku.iab.de/discussionpapers/2007/dp1607.pdf>
- Layard, R, S. Nickell and R. Jackman (2005), *Unemployment*, Second Edition, Oxford University Press.
- Lee, J-K (2005), 'Evaluation of and lessons from wage subsidy programmes in OECD countries', Directorate of Employment, Labour and Social Affairs, OECD.
- Löfström, A. (2009), 'Gender equality, economic growth and employment', study financed by the Swedish Ministry of Integration and Gender Equality available at http://www.se2009.eu/polopoly_fs/1.17994!menu/standard/file/EUstudie_sidvis.pdf
- Marx, I (2005), 'Job Subsidies and Cuts in Employers' Social Security Contributions: The Verdict of Empirical Evaluation Studies', available at <http://www.npc.umich.edu/news/events/NPCEUconf/marx.pdf>

- Morley, J. (2010), 'Fourth European Working Conditions Survey: Contribution to policy Development', *Eurofound*, available at <http://www.eurofound.europa.eu/pubdocs/2010/04/en/1/EF1004EN.pdf>
- OECD (2009), *OECD*, Economic Outlook 85 (June).
- Oreopoulos, P., T. von Wachter and A. Heisz (2008), 'The Short and Long-Term Career Effects of Graduating in a Recession: Hysteresis and Heterogeneity in the Market for College Graduates', *Discussion paper*, No. 3578, IZA, Bonn, available at <http://www.chass.utoronto.ca/cepa/recession%20paper.pdf>
- Oskamp, F. and D.J. Snower (2008), 'The Effect of Low-Wage Subsidies on Skills and Employment', *Kiel Working Paper*, No. 1292 available at http://www.ifw-members.ifw-kiel.de/publications/the-effect-of-low-wage-subsidies-on-skills-and-employment/KAP_1292_June_2008.pdf
- RWI (2005), 'Study on the effectiveness of ALMPs' available at <http://www.ec.europa.eu/social/BlobServlet?docId=3190&langId=en>
- Scarpetta, S., Sonnet A. and Th. Manfredi (2010), 'Rising Youth Unemployment during the Crisis: How to Prevent Negative Long-Term Consequences on a Generation?', *OECD SOCIAL*, Employment and Migration Papers, No. 106
- Smith, M. (2009), 'Analysis Note: Gender Equality and Recession', available at www.ec.europa.eu/social/BlobServlet?docId=2839&langId=en
- Smith, M. and F. Bettio (2008), 'Analysis Note: the Economic Case for Gender Equality', available at www.ec.europa.eu/social/BlobServlet?docId=3971&langId=en
- Skans, O.N. (2004), 'Scarring effects of the first labour market experience: A sibling-based analysis', Working paper 2004:14, *Institute for Labour Market Policy Evaluation*, available at <http://www.ifau.se/upload/pdf/se/2004/wp04-14.pdf>
- Van Audenrode, M. A., (1994), 'Short-Time Compensation, Job Security, and Employment Contracts: Evidence from Selected OECD Countries', *The Journal of Political Economy*, Vol. 102, No. 1. (Feb.), pp. 76-102.

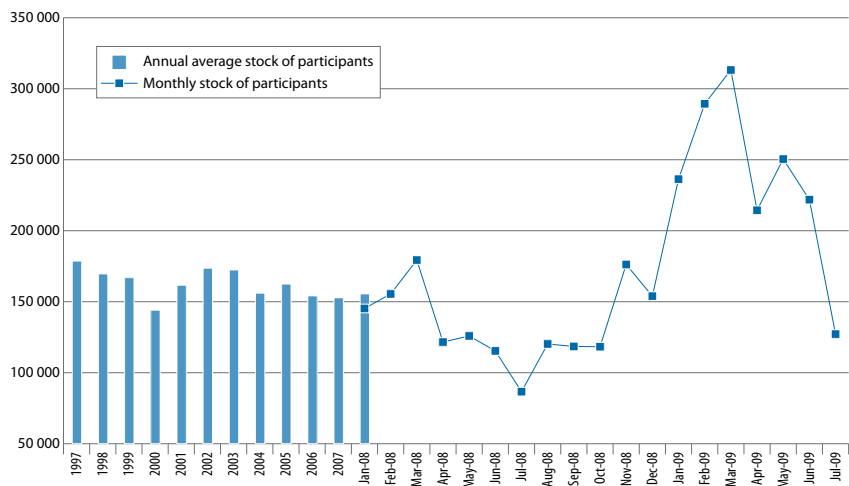
ANNEX 1 : RECIPIENTS OF SHORT-TIME WORKING ALLOWANCE: STOCKS OR FLOWS

Chart 11: Stock of recipients of short-time working allowance, Austria, Jan 08–Dec-09



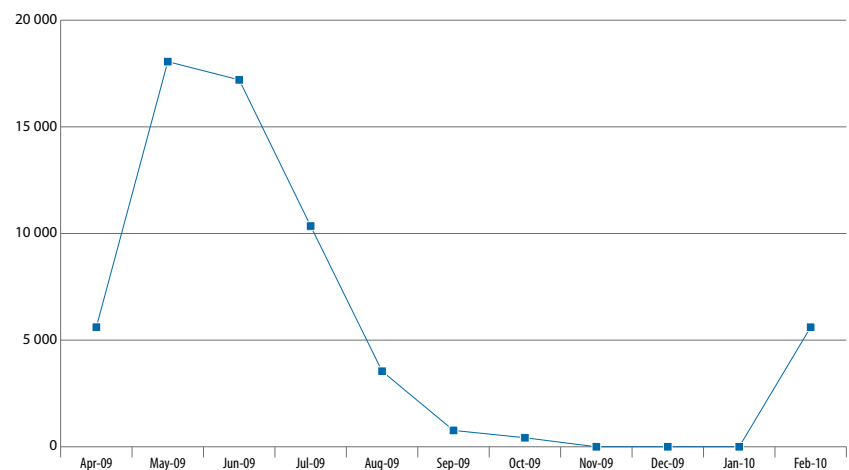
Source: Eurostat, LMP database; BMASK.

Chart 12: Stock of recipients of partial unemployment benefits, Belgium, 1997–Jul-09



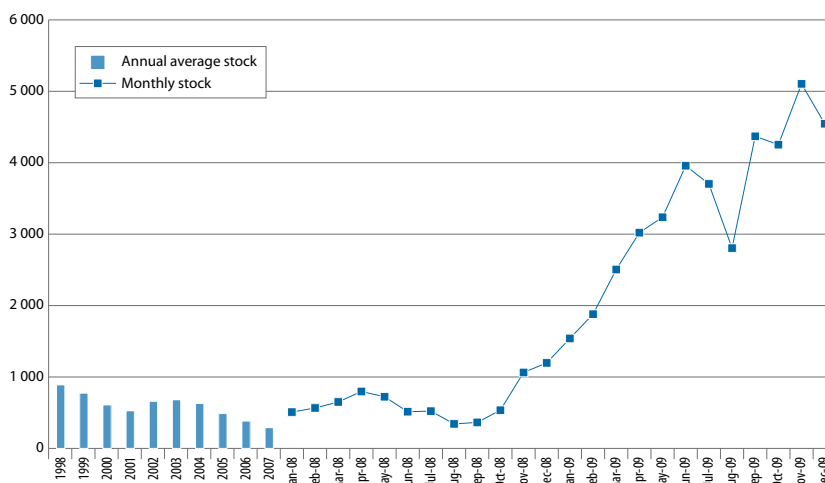
Source: Federal Public Service: Employment, Labour and Social Dialogue.

Chart 13: Stock of recipients of short-term working benefits, Bulgaria, Apr-09–Feb-10



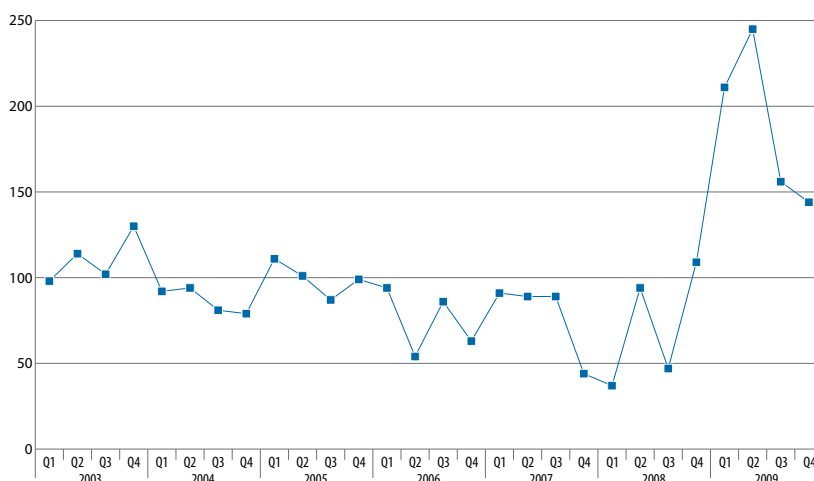
Source: State budget.

Chart 14: Stock of recipients of adjusted unemployment allowances as partial unemployment benefit, Finland, 1998–Jun-09



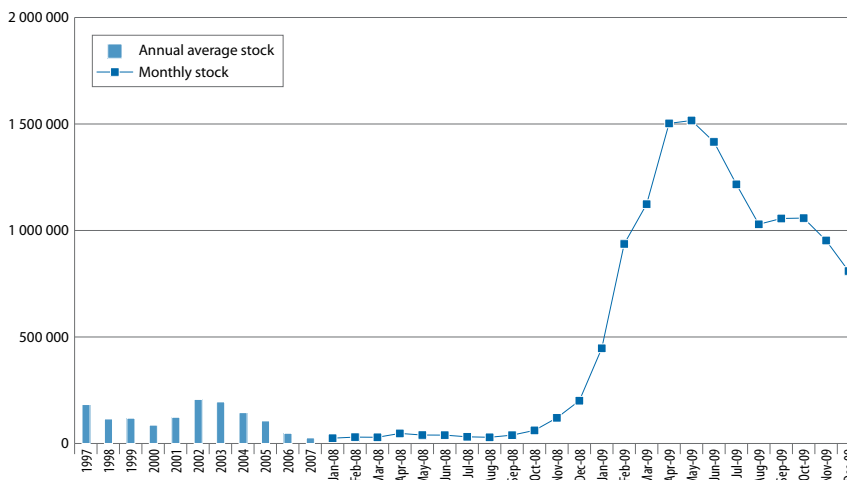
Source: Eurostat, LMP database; Financial Supervisory Authority (FIN-FSA); Social Insurance Institution (FIN-SII).

Chart 15: Stock of persons in short-time working arrangements: temporary lay-off or partial unemployment, France, 2003Q1-2009Q4



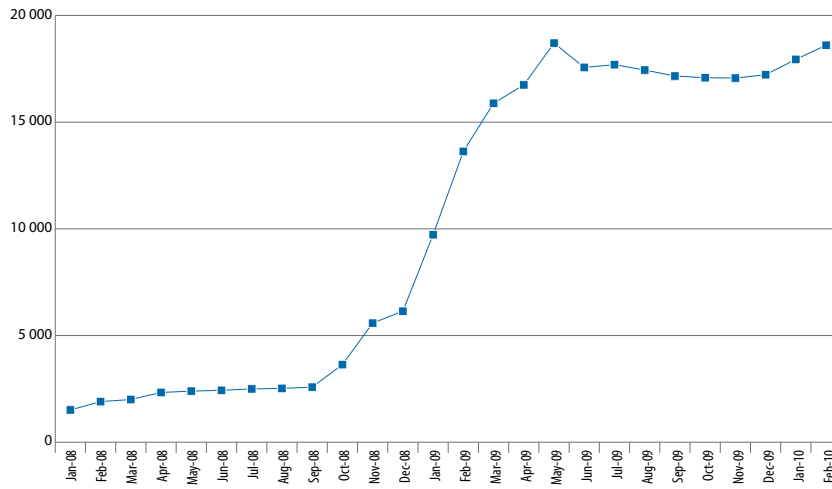
Source: Insee, enquête Emploi.

Chart 16: Stock of recipients of short-time working allowance caused by the conjuncture, Germany, 1997–Dec-09



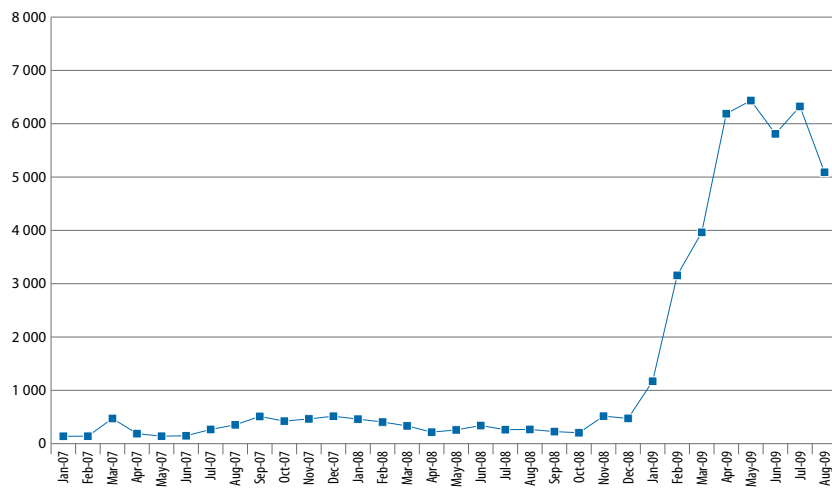
Source: Eurostat, LMP database; BA.

Chart 17: Stock of recipients of unemployment allowance under systematic short time working, Ireland, Jan-08–Feb-10



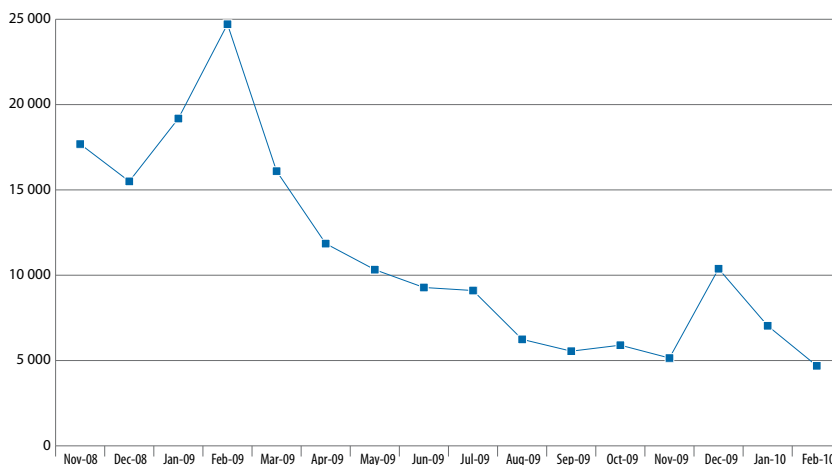
Source: Eurostat; LMP database; Irish Department of Enterprise, Trade and Innovation.

Chart 18: Stock of recipients of short-time working allowances, Portugal, Jan-07–Aug-09



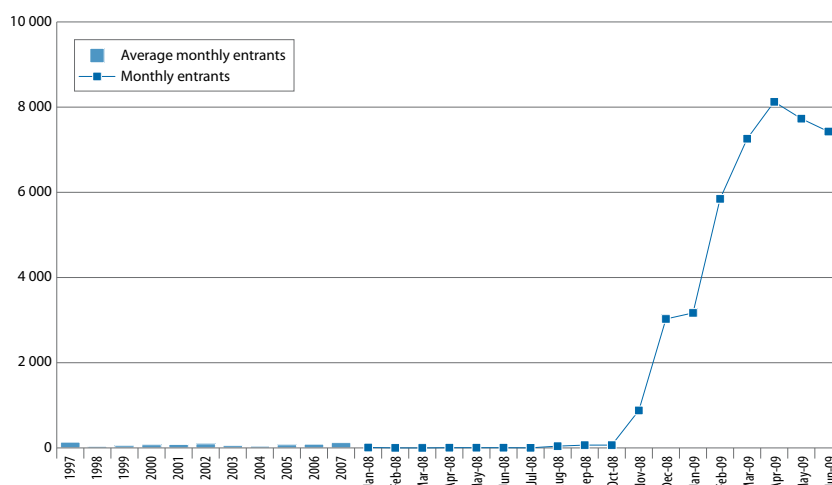
Source: Instituto de Informática, Eurostat, LMP database.

Chart 19: Number of entrants for the temporary provision of a wage supplement in the case of reduced working hours, The Czech Republic, Nov-08–Jan 10



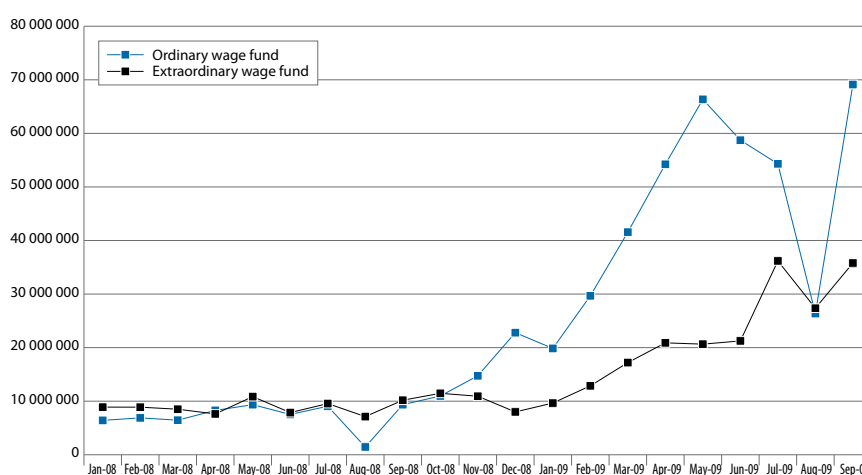
Source: Ministry of Labour and Social Affairs.

Chart 20: New recipients of (entrants) of partial unemployment benefits scheme (LMP: LU-1), Luxembourg, 1998–Jun-09



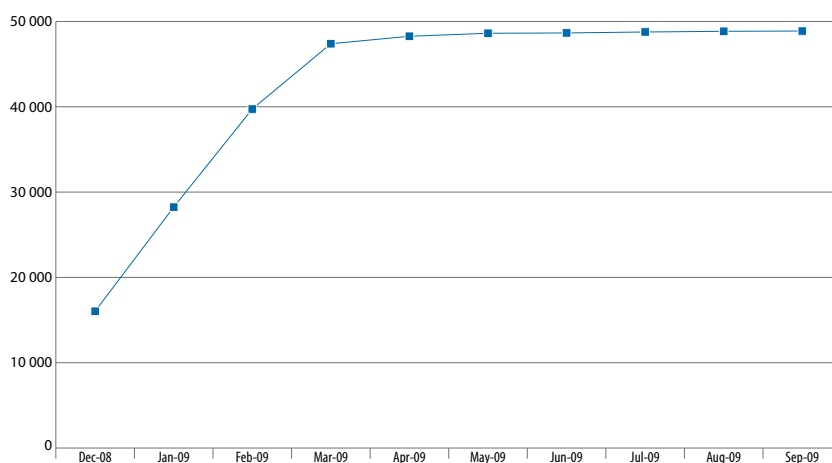
Source: LMP Database; ADEM Etudes et recherches.

Chart 21: Reduced working hours authorised and covered by partial unemployment schemes, Italy, Jan-08–Sep-09



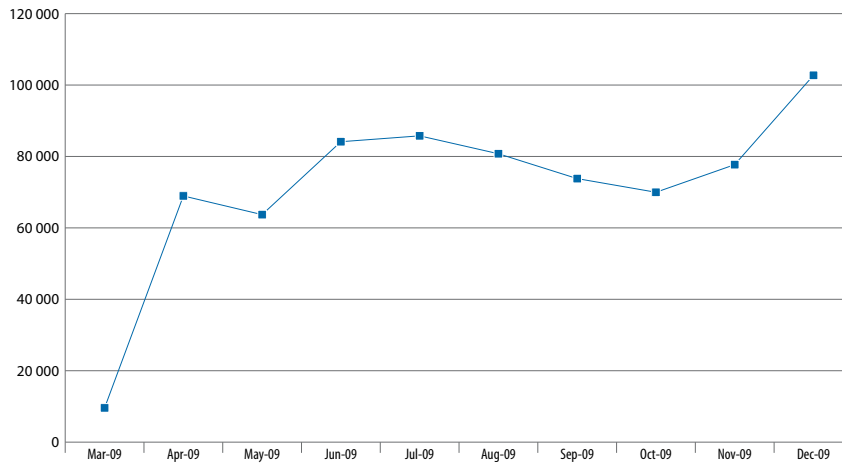
Source: Eurostat, LMP database; INPS - National Social Security Institute, Italy.

Chart 22: Cumulative number of recipients of temporarily reduced working time benefits (Werktijdverkorting), the Netherlands, Dec-08–Sep-09



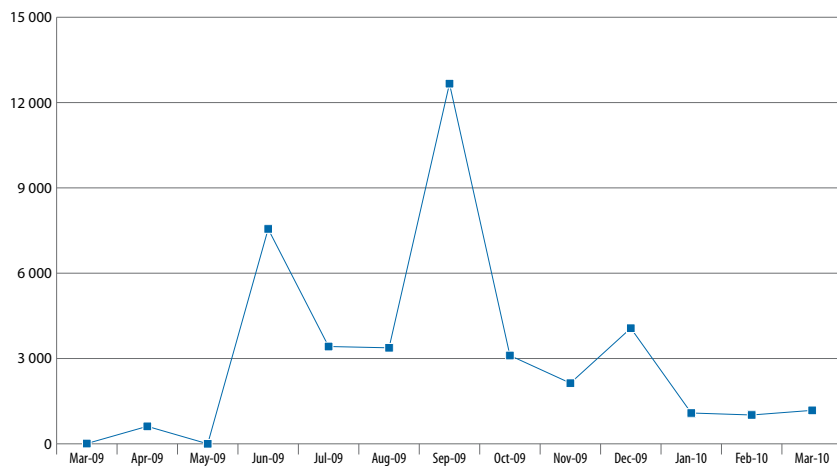
Source: Dutch Ministry of Social Affairs and Employment.

Chart 23: New recipients (entrants) of temporary suspension of employment, Romania, Mar 09–Dec 09



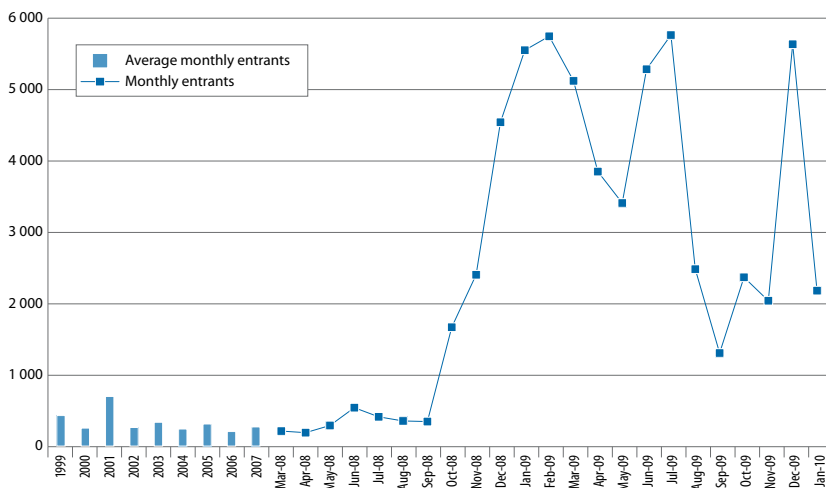
Source: NIS - collected from administrative data sources.

Chart 24: New recipients (entrants) of reduced working hours benefit, Slovakia, Mar-09–Mar-10



Source: The Centre of Labour, Social Affairs and Family, Slovakia.

Chart 25: New recipients of partial unemployment benefits, Spain, 1999–Jan 10



Source: Eurostat, LMP database; Ministerio de trabajo e inmigración.

ANNEX 2: THE EU COMMISSION'S LABOUR MARKET MODEL (LMM)⁽⁵⁸⁾

1. Background

LMM is a dynamic computable general equilibrium model providing an in-depth description of the labour market, i.e. it is an economic model that is developed from microeconomic fundamentals and uses actual economic data to assess how an economy might react to changes in labour market policies or other external factors. Those labour market policies may include changes in direct and indirect taxes, lump sum transfers, ALMP, training subsidies, employment protection legislation (including firing costs) and direct (financial) support to people on a low income.

Other Commission models have a different focus and are therefore largely complementary to LMM. The Quest III model of DG ECFIN covers the Euro Area as an open-economy (as a counterpart to the US) and is designed to demonstrate the impact of fiscal and monetary policy. Its particular focus is the production sector and foreign trade. In the context of the MODELS project, the GEM-E3 was further developed with particular focus on the energy sector and the environment, while WorldScan was developed to analyse long-term issues in the world economy such as globalisation, ageing, the depletion of energy sources and the emission of greenhouse gasses. It covers labour market policies only to a limited extent (e.g. unemployment rates are exogenous).

(58) More technical details about LMM are available at <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=653&furtherNews=yes>

2. An outline of LMM

2.1. General Microeconomic Framework

LMM explains optimal behaviour of the actors involved: workers, firms and the retired. Given their limited resources and within a detailed institutional setting, households decide upon how best to allocate consumption, whether to participate in the labour market, the intensity of job search in case of unemployment, the choice of education at the beginning of their career and training level during their active life, the extent to which labour is supplied, and retirement, when eligible. Company decisions include whether to deepen capital, to offer vacancies or to dismiss staff. Any decisions are made in order to optimise individual utility over the life-cycle or to maximise the firm's value. Section 4 below outlines in more detail the decisions made and the deliberations behind those decisions. It is important to understand the structure of the decisions as they largely determine the model's outcome in terms of the labour market variables (e.g. productivity and growth, employment levels, unemployment).

Household behaviour and labour market variables are modelled by age group. Four out of eight age groups are of working age, three are considered retired and one is a mixed age group including people of working age but eligible to retire. Hence, agents in this "mixed" group have to decide upon the optimal retirement age. Significantly, there are also three skills groups. At the beginning of their working lives, agents once and for all decide on their optimal skill levels. Higher skills promise higher earnings but reaching a higher skill group is associated with a higher educational cost and foregone earnings while in education. In production, higher skills mean higher productivity and a higher degree of complementarity to capital.

2.2. Distinctive features of LMM

A variety of labour market policy measures can be simulated as LMM incorporates many structural policy parameters and institutional settings which explicitly co-determine individual decision making as regards labour market behaviour. Those parameters and institutions include:

- The levels and structure of taxes (tax progression, indirect vs. direct taxation) and social contributions as a determinant of labour cost;
- Special subsidies and taxes designed to provide incentives to both companies and workers. Among these are: employment subsidies, firing taxes, taxes on severance payments, support for training and school education, childcare support, profit taxes and taxes on capital stock;
- The benefit schemes cover:
 - * lump sum and income dependent unemployment benefits constituting workers' fallback position in the wage bargaining process;
 - * lump sum and income-dependent PAYG pension benefits including both disability and old-age pensions. Pension discounts/surpluses are applied depending on when one decides to retire in relation to the statutory retirement age;
 - * social assistance payments to workers, unemployed and inactive individuals.
- The model allows for human capital to depreciate over time, or for employees to improve their on-the-job productivity. However, worker productivity can be updated by individual or firm-sponsored training. Firms decide endogenously on the optimal amount of firm-sponsored training - depending on the implied increase of labour productivity and

the costs associated with training. Training of the employed increases their productivity, training of the unemployed increases their probability of finding a job. However, as educational skills levels are determined at the beginning of workers' career, training may not alter this;

- The cost and the effect of school education which determines the skills level on the basis of a decision made at the very beginning of an individual's career. The incentive system also includes scholarships for students. As labour markets do not clear immediately, expectations about future employment opportunities are an important factor affecting decisions on education;
- The strictness of employment protection legislation covering firing costs includes severance payments (i.e. payments from firms to workers), firing taxes (i.e. payments from firms to the government) and administrative costs (such as law suits, etc.);
- The wage bargaining process reflecting the relative power of workers and firms in that process when sharing efficiency gains;
- A restriction concerning the matching of labour supply and demand. The matching restriction makes employment partly a stochastic process. From the demand side, only part of the vacancies offered by firms can be filled. From the supply side, not everyone actively searching for a new job will find a match. Matching success depends on the labour market situation, i.e., on the number of vacancies per search unit.

3. Scope and limitations of LMM

The model is designed for comparative analysis. After the introduction of a policy measure as an "exogenous

shock", it is possible to observe how various labour market variables develop against the baseline scenario, i.e., the situation before the measure was introduced. Variables that can be modelled include the employment levels and unemployment rates across different age and skill groups, real wages, labour productivity, etc. It is also possible to plot the new long-term equilibrium against the initial steady state (comparative statics) or to observe how the relevant variables develop over time in temporary (short-term) equilibria against the baseline scenario (comparative dynamics).

The model allows for the calculation of medium-term deviations from the long-term steady state due to a number of imperfections captured by the model. For example:

- For physical investment, there is an installation cost which means that the capital stock does not adapt immediately but adjusts gradually to its optimum level after external policy measures influencing the capital costs. The same principle holds true for human capital accumulation which is also associated to costs.
- Wage bargaining is a stochastic process from an individual perspective. That is, though wages are flexible, wage adjustments may not clear markets (as assumed in neoclassical models) and there is scope for equilibrium unemployment. That is, if offered by companies, not all vacancies will be filled and only some of those who search for a job will actually find a match - both depending on how many vacancies are available in relation to people searching for a job (matching restrictions). If there is a match then workers and firms agree upon the wage. The resulting wage depends on the respective fall-back positions (from worker's perspective, this is the unemployment benefit than can be expected when not working).

The model cannot be considered a forecasting tool in the sense of estimating/predicting the values of certain variables at certain specific future times under unknown situations. Moreover, the model is less suited to capture short-term dynamics of the business cycle. In contrast to QUEST, for example, LMM works with annual rather than quarterly data. It describes the transmission process from one initial long-term steady state equilibrium to another in response to an impulse from a given policy measure.

4. Main behavioural patterns (optimisation)

The model's labour market outcome depends on the behaviour of the main actors involved. Those are workers (including those eligible to retire) as suppliers of labour, the firms from the demand side, and retired people. It is assumed that actors maximise their individual utility so as to decide, for example, whether to consume now or tomorrow (i.e., to save assets today), whether to supply or demand units of labour, or whether to invest in training and education. All these activities potentially augment individual welfare from different perspectives but are associated with costs and/or disutility. Therefore, for all their activities, actors weigh the associated costs against potential gain. A permanent optimisation problem is the model's main driving force when producing its outcome in terms of labour market performance. The issue is: what are the decisions to be made by the different actors?

4.1. Workers and mixed group

Optimally choose

1. What skill level to acquire at the beginning of their career,
2. Hours to be worked,

3. Job search effort, + increases pension entitlement,
4. Labour participation, + leads to entitlement to further severance payments, but:
5. Time investment into training, – induces effort costs,
6. Inter-temporal allocation of consumption (and savings) given time preference and wealth in the current period, – foregoes home production, – foregoes drawing on unemployment benefits and lump-sum transfers.
- so as to maximise their welfare.
5. Spending more time on training:
- + potentially increases future income through higher productivity,
- induces an effort cost.
6. Consumption today:
- + will produce additional utility today,
- will come at the expense of tomorrow's consumption given asset stocks.
1. Acquiring the incremental education in order to obtain the next skill level (youngest agents' skill choice):
- + increases lifetime utility of skills because of higher earnings,
- induces an incremental educational cost,
- leads to foregone earnings while in education.
4. Going for higher participation:
- + provides additional (net) labour income if employed,
- + leads to entitlement to unemployment benefits if unemployed,
- + leads to entitlement to severance payment if fired again,
- + increases possible future income over higher productivity,
- induces effort costs:
- search for work,
- go to work,
- go to training,
- foregoes (net) social benefits otherwise received,
- forgoes income from possible home production.
- 4.2. Pensioners
- Optimally choose their inter-temporal allocation of consumption on the basis of time preference and wealth given in the current period (see 5. above).
2. Supplying another hour of work (if job matched):
- + increases income over (net) wages,
- + effective tax rate is reduced by:
- + higher unemployment compensation,
- + higher pension entitlements,
- + extra severance payment in case of separation,
- but implies disutility of 'going to work'.
- 4.3. Firms
- Firms optimally chose labour demand and the level of investment (into physical capital). They decide on:
1. Vacancies,
2. Retention (whether to keep a person once recruited),
3. Investment in firm-sponsored training,
4. Physical investment.
3. Supplying another search unit to find a job (if matching is successful):
- + increases income over higher employment,
- + increases future income over higher productivity (only the employed do job train),
- Postponing retirement, in addition to (3) above:
- + will lead to (actuarial) surcharges or lower discount on pensions [-> Gruber/Wise],
- will cause actors to forgo (net) pension benefits otherwise received.
1. Posting another vacancy:
- + directly adds to the firm's value by generating labour productivity;
- + qualifies the firm for employment subsidies- induces labour costs (wages, employer's social contributions),
- induces costs for firm-sponsored training (if any) net of subsidies,

- induces firing costs if worker is fired again,
- induces managerial costs associated to employment.

2. Keeping a worker:

- + directly adds to the firm's value by generating labour productivity,
- + avoids application of firing costs,
- + qualifies the firm for employment subsidies,

- induces labour costs (wages, employer's social contributions),
- induces cost for firm-sponsored training (if any) net of subsidies.

3. Offering firm-sponsored training:

- + supplements higher productivity (generating additional value over increased output),
- + qualifies the firm for training subsidies,
- will generate training costs,

- leads to higher wage costs (higher productivity, higher output -> higher employment),
- leads to higher potential firing costs.

4. Investing in physical capital:

- + leads to dividends (yield from the investment net of profit taxes),
- + qualifies the firm for subsidies (net of taxes),
- leads to adjustment costs (beyond steady state).

Youth and segmentation in EU labour markets

1. INTRODUCTION

Over past decades, a number of Member States have registered a large rise in temporary or fixed-term employment. This was mainly the result of reforms of employment protection legislation introducing flexibility 'at the margin' i.e. substantially deregulating the use of temporary contracts while maintaining stringent firing rules on permanent contracts. As regards the size or magnitude of reforms, marginal as opposed to discrete⁽¹⁾ ones prevailed. Although being relatively small in size, they were paramount in increasing labour market flexibility.

High and persistent unemployment rates during the 1980s and 1990s in several (continental) EU Member States were often blamed on excessively stringent firing legislation, leading to widespread calls from both academics and international organisations for greater labour market flexibility. However, as open-ended contracts represented the normal form of employment, political economy considerations prevented governments from loosening regulations, leaving them with the alternative option of largely liberalising the use of temporary contracts, which had been previously confined largely to seasonal jobs or other genuinely temporary tasks.

(1) I.e. representing large changes in regulations.

Following such reforms, temporary contracts were increasingly used by firms as a hiring tool, often resulting in an initial rise in overall employment levels. However, concerns over a number of 'perverse' effects of large-scale use of temporary contracts have rapidly emerged, essentially associated to the emergence of dual (or segmented) labour markets: one for permanent employees (or 'insiders'), who can look forward to a life of continuous employment and careers offering promotion and rising incomes, and another for temporary employees (or 'outsiders'), living in a precarious situation and at risk of frequent spells of unemployment with poor prospects of career advancement.

Labour market segmentation affects predominately young and low-skilled workers, particularly during economic downturns. The high incidence of temporary work for these two groups can put them in a relatively precarious situation, not only in terms of employment security, but also in terms of income security, because of the limited access of temporary workers to social security benefits in general, and unemployment insurance in particular.

Whereas the liberalisation of temporary contracts had boosted hiring and job creation, most of those contracts were not transformed, at the contracts' expiry, into open-ended ones, leading to reduced transition rates from

temporary to permanent employment. Hence, many observers highlight that in segmented labour markets, temporary work is often used by firms as a cheaper means of production, taking advantage of the large regulatory gap to permanent contracts, rather than as a tool for 'screening' the productivity/adequacy of new recruits.

This is reflected in lower wages and training provision for temporary workers than for permanent workers regardless of similarities in their characteristics and job tasks. Moreover, the use of temporary contracts affects a disproportionate amount of young workers, as temporary jobs are increasingly used as a 'port of entry' into the labour market for young people who have finished their initial education. Labour market duality can be a particularly serious problem for young people, as a precarious start in the world of work is likely to have a long-lasting negative impact on future employment and earnings prospects.

The recent recession has highlighted other major shortcomings of labour market duality as temporary workers in general, and the young in particular, have been particularly hard hit in a number of Member States (e.g. Spain, France). They have borne the brunt of the reduction in employment, essentially as a counter-part to the expansion of temporary work in those countries during previous years as a result of 'partial' or 'two-tier' reforms

of EPL. Overall, large-scale use of temporary contracts within segmented labour markets seems to increase the cyclical volatility of employment, while the initial rise in employment levels as a result of two-tier EPL reforms gradually withers away, particularly during economic downturns.

Concerns over adverse effects of labour market segmentation are not new. The EU has already responded in 2006-2007 by putting forward the flexicurity approach as the right policy "recipe", inter alia, to counteract segmentation⁽²⁾. A flexicurity reform strategy aims to correct situations characterised by unbalanced distribution of flexibility needs across different groups of workers leading to an undesirable reduction in the labour market security of some of them.

However, the disproportionate impact of the "great recession" on temporary (and young) workers makes it more urgent to take a fresh look at the type and size of 'perverse' effects related to labour market segmentation, with a specific focus on the young. This can be done firstly, by looking at the existing literature, both theoretical and empirical, on the implications of labour market duality for a number of key labour market variables, such as employment, wages, labour market transitions and human capital accumulation (with a particular emphasis on recent academic research related to two-tier reforms of employment protection legislation, EPL), and secondly, by gathering new descriptive and econometric evidence on such implications using several EU statistical sources, including micro data. This is what this chapter attempts to do.

This chapter is divided into eight further sections, as follows:

1. The second provides some basic stylised facts on young workers, mainly covering flows and unemployment duration.
2. The third is based on recent academic literature on the macroeconomic effects of two-tier or partial EPL reforms and the associated expansion in temporary work.
3. The fourth presents evidence on the incidence of temporary contracts among young workers, covering aspects such as the age profile of temporary contracts and their use as a hiring tool.
4. Moving away from segmentation *stricto sensu* and towards broader youth issues, the fifth section covers school-to-work transitions, looking at evidence on youth employment rates after leaving initial education and the wider measure of NEET⁽³⁾, while also referencing the vast literature on the presence of lasting 'scarring' effects due to unemployment spells early in life.
5. The sixth section covers a widely-mentioned implication of labour market segmentation, i.e. the wage penalty and the reduced access to training for temporary workers, and also includes an analysis of the determinants of individual participation in further 'formal' education. The related impact of temporary work on productivity developments is also discussed.
6. The seventh section looks at dynamic effects of segmentation, covering its impact on transition rates from temporary to permanent employment while also investigating the wider issue of the determinants of labour market transitions (from non-employment to employment, from temporary to permanent jobs and from low pay to higher pay) using micro data.
7. The eighth section looks at the link between segmentation and employment volatility and presents evidence regarding the sensitivity of youth unemployment to the business cycle and an econometric assessment of the role of temporary employment as an adjustment mechanism to business cycle fluctuations.
8. The ninth section concludes by summarising the main findings of the chapter. Given the established EU policy of seeking to reduce segmentation/dualism through the implementation of comprehensive flexicurity policy packages⁽⁴⁾, it also refers to a specific policy proposal to eliminate the EPL gap between permanent and temporary contracts as an example of an 'exit strategy' from dual labour markets: the so-called "single contract" developed and advocated by a number of prominent European labour market economists, inter alia, Boeri and Garibaldi (2008), Bentolila (2010) and Cahuc (2010).

2. YOUNG PEOPLE IN THE LABOUR MARKET: SOME STYLISED FACTS

In industrialised countries, including EU Member States, employment creation and destruction flows relative to the stock of jobs are large⁽⁵⁾ (Cahuc and Zylberberg, 2005; Davis and Haltiwanger, 1999).

(4) As identified in the Commission Communication "Towards Common Principles of Flexicurity: More and better jobs through flexibility and security", COM(2007) 359 of 27.6.2007.

(5) A number of indicators have been used in order to measure job and labour market turnover (see EIE 2009, Chapter 2). Job turnover (JT) comprises all changes in the level and spatial distribution of employment deriving from firms' labour input decisions. Labour turnover (LT) measures flows from the perspective of workers, thereby including both workers' flows which are initiated by firms and those resulting from workers' decisions to move to different jobs, or in and out of employment. Hence by definition, JT is smaller than LT, because to each job created (destroyed) there corresponds one hire (separation), whereas the opposite does not necessarily hold, as there are many separations and hires which are not associated with changes in the existing stock of jobs.

(2) As identified in the Commission's Communication "Towards Common Principles of Flexicurity: More and better jobs through flexibility and security", COM(2007) 359 of 27.6.2007.

(3) Not in Employment, Education or Training.

In a recent OECD study (2009) covering eleven countries for job turnover and twenty-two for labour turnover and using harmonised data, job turnover rates were estimated at 22% (of total employment) over the period 1997-2004, and annual average labour turnover rates at 33% (of total employment) between 2000 and 2005.

Using EU Labour Force Survey (LFS) data, labour turnover rates can be calculated for EU Member States.⁽⁶⁾ They exhibit a pronounced age profile (Chart 1). On average, young people tend to undergo considerably more transitions both in and out of the labour force and between jobs than an average worker, reflecting the transition process between education and the world of work, but possibly also the extensive use of (short-duration) temporary contracts.

According to EU LFS data, young people spend on average shorter periods in unemployment between jobs than people from older age groups (Chart 2).

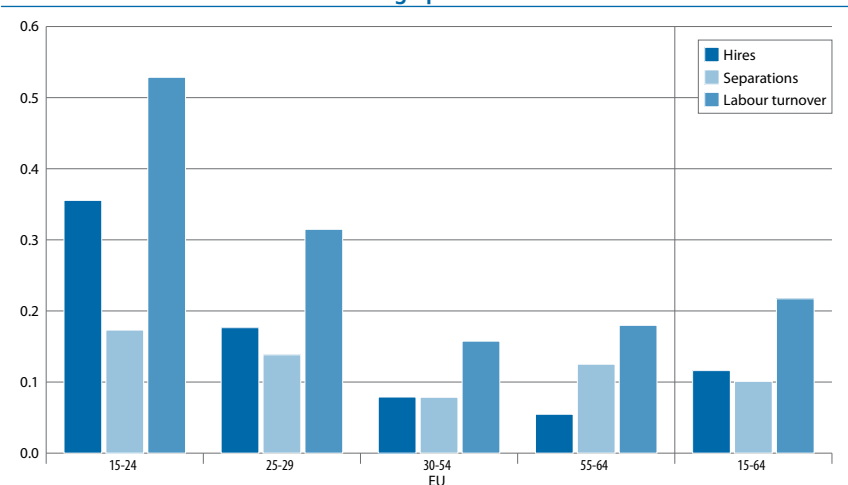
The large number of labour transitions amongst the young more than offsets the short duration of the intervening unemployment spells, resulting in a decreasing age profile for the unemployment rate (Chart 3).

It should be acknowledged however that factors other than age, such as gender or education, can be associated with different labour market outcomes.⁽⁷⁾ For example it is well-known that, all else being equal, women tend to have longer unemployment spells (Chart 2a) while tertiary educated workers tend to have shorter spells (Chart 2b).

(6) For details on the methodology see EIE 2009, Chapter 2.

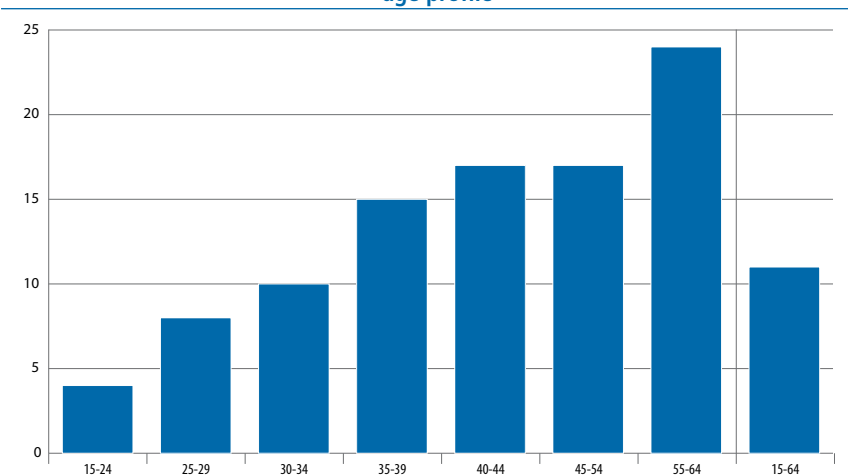
(7) An assessment of labour market determinants requires a complete econometrics analysis, as bivariate analysis may be subject to the omitted-variable bias, i.e. the bias that appears in estimates of parameters in a regression analysis when the assumed specification is incorrect, in that it omits an independent variable that should be in the model.

Chart 1: Hirings, separations and labour turnover (% of total employment in 2008) – age profile



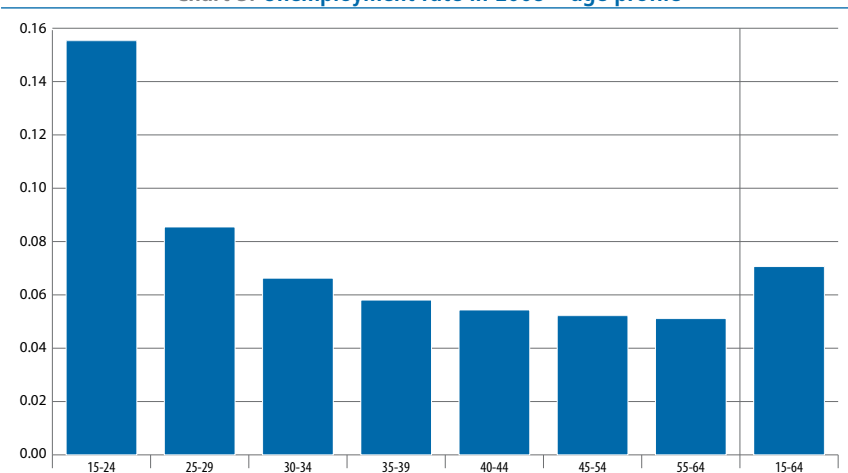
Source: EU LFS, DG EMPL calculations.

Chart 2: Median time (in months) since an unemployed person last worked in 2008 – age profile



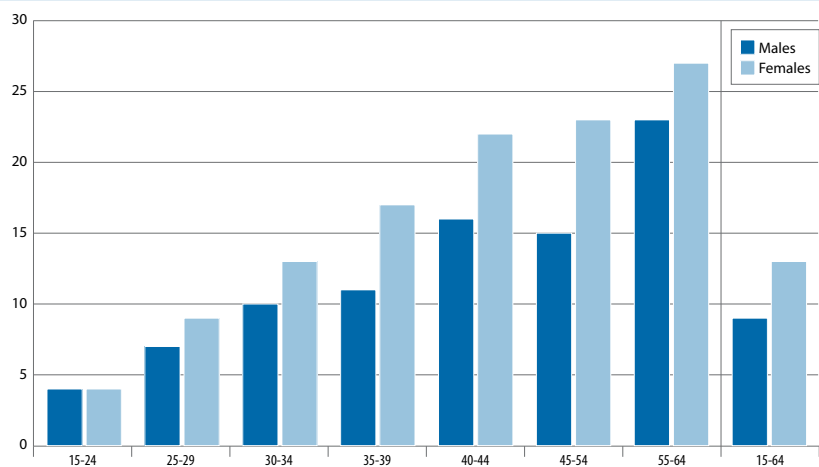
Source: EU LFS.

Chart 3: Unemployment rate in 2008 – age profile



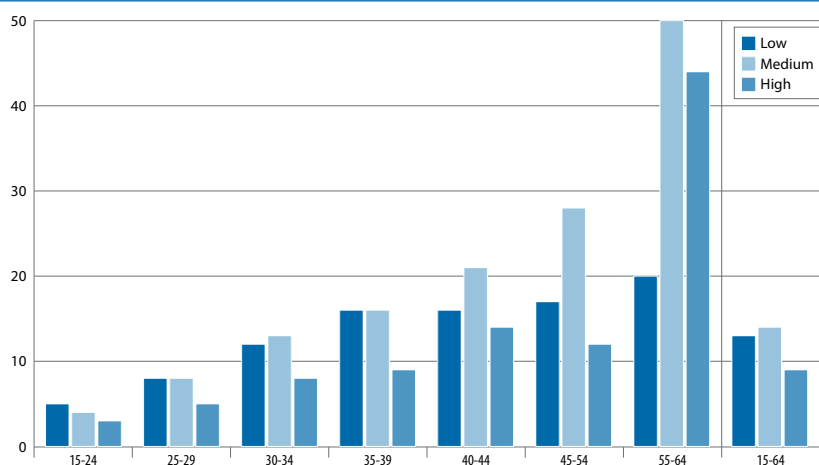
Source: EU LFS, DG EMPL calculations.

Chart 2a: Median time (in months) since an unemployed person last worked
breakdown by gender in 2008 – age profile



Source: EU LFS.

Chart 2b: Median time (in months) since an unemployed person last worked
breakdown by education level in 2008 – age profile



Source: EU LFS.

The perceived insecurity of workers can be an important determinant of their behaviour. Using survey data, insecurity can be assessed in terms of the perceived probability of being unemployed (or losing their current job). The fear of unemployment is found to increase with age, with a history of previous unemployment, with having a temporary or part-time contract, as well as with the level of regional unemployment (Green et al., 2001).

Using survey data, Böckermans (2004) and Clark and Postel-Vinay (2009) reveal large differences across countries in terms of perceived insecurity, but find them to be higher (i.e. insecurity increases) the stricter EPL is, and lower (i.e. insecurity decreases)

the more generous unemployment benefits are.

There are huge disparities between countries in the co-residence rates of young people with their parents. For example, in 2002 co-residence rates for men aged 25 to 29 years old ranged from a low of 20-22% in France, the Netherlands, and the UK to very high levels in Southern Member States like Italy (73%), Greece (70%), Spain (67%), and Portugal (58%), but also the Nordic Member State of Finland (73%) (Becker et al., 2005). Moreover, since the mid-1980s, co-residence rates have shown a marked upward trend in Southern Member States, in contrast to more stable rates in the rest of the EU.

The economic analysis of ‘emancipation’ has mainly focused on the impact of parental and youth income, housing prices, and the degree of job insecurity as perceived by both the young and their parents. Data for France also suggests that the incidence of co-residence is much higher for young people holding temporary rather than permanent contracts (Cahuc and Kramarz, 2004), partly reflecting their reduced access to renting or mortgage borrowing.⁽⁸⁾

Becker et al. (2005) find that after examining many other factors, higher youth insecurity is associated with higher co-residence rates with parents (or a later emancipation age).

It is important to monitor the emancipation age because it is negatively correlated with interregional migration/mobility and fertility. Blanchard and Katz (1992) argue that high rates of migration serve to reduce unemployment rates between states in the US, while such disparities tend to persist in low internal migration/mobility countries like Italy and Spain (Decressin and Fatás, 1995; Bentolila and Jimeno, 1998, respectively). Lower mobility is also seen as resulting in higher equilibrium unemployment (Layard et al., 1991).

With all else being equal, delaying emancipation tends to reduce fertility rates which, in turn, impacts on the old age dependency ratio, with its consequence for the sustainability of the social security system. Giuliano (2004) argues that in Southern European countries, young people often leave their parents’ home only when they get married, and that the incidence of out-of-wedlock births is low. Therefore, high or rising (labour market) insecurity is likely to delay household formation and childbearing decisions and, indeed, total fertility rates⁽⁹⁾ declined significantly in Southern Europe between 1980 and 2000 (Table 1).

(8) The percentage of young people aged 23 living with their parents is 12 percentage points higher for those having a temporary rather than a permanent contract. This gap extends to all ages below 35.

(9) Births per woman of reproductive age.

Table 1: Total fertility rate

Countries	1960	1970	1980	1990	2000	2008
Austria	2.69	2.29	1.65	1.46	1.36	1.41
Belgium	2.54	2.25	1.68	1.62		
Bulgaria	2.31	2.17	2.05	1.82	1.26	1.48
Cyprus				2.41	1.64	1.46
Czech Republic	2.09	1.92	2.08	1.90	1.14	1.50
Denmark	2.57	1.95	1.55	1.67	1.77	1.89
Estonia				2.05	1.38	1.65
Finland	2.72	1.83	1.63	1.78	1.73	1.85
France métropolitaine	2.73	2.47	1.95	1.78	1.87	1.99
Germany (including ex-GDR from 1991)					1.38	1.38
Greece	2.23	2.40	2.23	1.40	1.26	1.51
Hungary	2.02	1.98	1.91	1.87	1.32	1.35
Ireland	3.78	3.85	3.21	2.11	1.89	2.10
Italy	2.37	2.38	1.64	1.33	1.26	
Latvia						1.44
Lithuania		2.40	1.99	2.03	1.39	1.47
Luxembourg	2.29	1.97	1.50	1.60	1.76	1.61
Malta			1.99	2.04	1.70	1.44
Netherlands	3.12	2.57	1.60	1.62	1.72	1.77
Poland				2.06	1.35	1.39
Portugal	3.16	3.01	2.25	1.56	1.55	1.37
Romania			2.43	1.83	1.31	1.35
Slovakia	3.04	2.41	2.32	2.09	1.30	1.32
Slovenia				1.46	1.26	1.53
Spain			2.20	1.36	1.23	1.46
Sweden		1.92	1.68	2.13	1.54	1.91
United Kingdom			1.90	1.83	1.64	

Source: Eurostat.

3. TEMPORARY CONTRACTS AND DUAL LABOUR MARKETS

3.1. Two-tier reforms of employment protection legislation

Temporary contracts can play an important role in the transition process between education and the world of work, i.e. by facilitating entry into the labour market, particularly in those countries where apprenticeship/traineeship systems are underdeveloped. Temporary contracts can facilitate worker selection and a better matching of job requirements to workers' needs/aspirations, particularly when they also provide training opportunities that serve as bridges or stepping stones into more permanent and/or better paid jobs. However, in recent decades, labour markets in several EU Member States have been characterised by increas-

ing dualism or segmentation. These terms refer, essentially, to the coexistence of workers with stable (i.e. long-term) employment relationships and other workers with temporary employment contracts, including agency work as well as seasonal or casual jobs. The latter group may become 'trapped' in temporary and/or precarious jobs with long-lasting adverse consequences on their labour market attachment, earnings, career prospects, job satisfaction and overall happiness (Layard, 2005).

Some authors (e.g. Boeri, 2010b) argue that labour market dualism is related to a particular reform strategy with respect to Employment Protection Legislation (EPL). EU Member States⁽¹⁰⁾ have enacted numerous reforms in this area since the 1980s aimed at improving the functioning of labour markets in general and reducing high and persistent structural unemployment rates. The EPL reform strategies that have been primarily responsible for the increase

(10) Particularly in Continental Europe.

in dualism appear to be those that focused on promoting flexibility 'at the margin' – through the deregulation of temporary contracts and/or the introduction or development of agency work and other contracts of limited duration⁽¹¹⁾ – while keeping existing rules on permanent contracts largely unchanged.

These strategies are generally considered to have been largely determined by political considerations, in other words by what it was possible to achieve through the political process, rather than by considerations of how best to design the EPL institution in order to improve the workings of the labour market and allocative efficiency in general. In effect, where permanent contracts represent the most common type of employment, governments were often unable to obtain support for reforms that weaken dismissal rules for permanent employees, and focused instead on easing the regulations on temporary contracts (Saint-Paul, 1999).

Boeri (2010b) labels this type of reform as 'two-tier' since it widens asymmetries in the employment protection afforded to permanent and temporary workers. More generally, Boeri proposes a typology of reforms of labour market institutions (including EPL) based on the following three criteria:

- The *orientation* of the reform, i.e. whether it is intended to increase or reduce the 'wedge' between labour supply and demand (compared to a no policy scenario).
- The *size* of the reform, i.e. whether it changes the intensity of the policy significantly or only marginally. In other words, is it a discrete⁽¹²⁾ or an incremental reform?

(11) E.g. contracts of *collaborazione coordinata e continuativa* and later, *collaborazione a progetto* in Italy, corresponding to 'quasi-self-employment'.

(12) Discrete reforms are defined as those that change the intensity of policies, measured using indicators such as OECD's EPL, by a minimum threshold (e.g. at least one tenth of the cross-country standard deviation of the indicator).

- The scope of the reform i.e. whether it involves all of the potentially eligible population (in the case of EPL, all workers) or just a subset, such as temporary employees. In other words, is it a 'complete' or 'two-tier' reform⁽¹³⁾?

Boeri (2010b) uses this typology to classify reforms carried out in a number of European and non-European countries between 1980 and 2007 in four labour market policy areas, namely:

- Employment Protection Legislation (EPL),
- Unemployment Insurance (UI),
- Activation Programmes (AP),
- Employment Conditional Incentives (ECI).

A simple count of measures indicates that EPL reforms represent about one in every four reforms, of which approximately 60% have reduced the wedge between labour supply and demand (i.e. eased regulations).

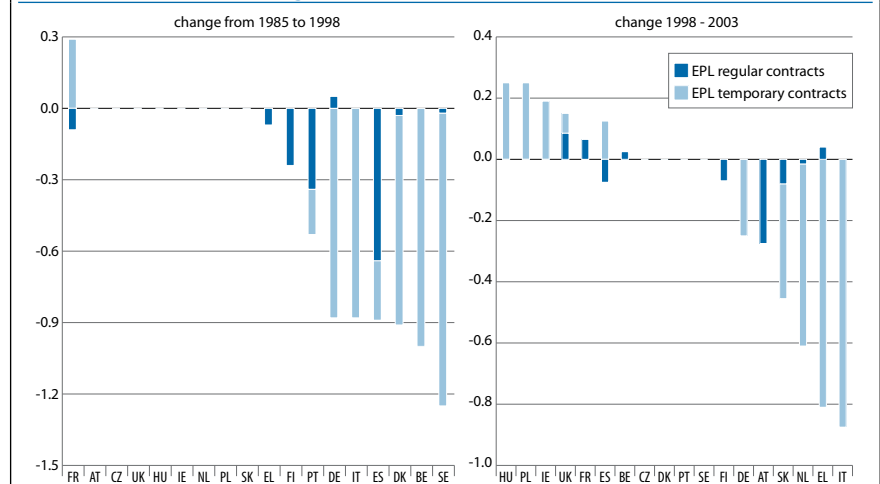
As regards the scope of measures, in the four labour market policy areas reviewed, the number of two-tier reforms is similar to the number of complete ones. As regards size, discrete reforms (i.e. representing large changes in regulations) account for about 40% of total reforms and, particularly in the EPL policy area, discrete reforms are mostly two-tier (as opposed to complete). There seems to be a trade-off between the size and scope of reforms, with larger reforms more likely to be two-tier. Boeri's taxonomy highlights the fact that a large number of changes in EPL have had the effect of widening regulatory asymmetries between permanent and temporary workers rather than easing EPL for all employees, thereby contributing to the creation of dual systems.

(13) More specifically, two-tier reforms are defined as those which affect less than 50% of the population potentially eligible or which involve all of it but only gradually and in the long-term, i.e. after a transition period of at least 30 years.

Spain is widely seen as clear-cut example of labour market dualism. In 1984, a two-tier EPL reform liberalised the use of temporary contracts, while maintaining EPL unchanged for permanent contracts. The incidence of temporary contracts in total paid employment rose

from about 15% in the mid-1980s to close to 30% in 1990, because temporary contracts involve much lower firing costs, both in terms of severance payment and the possibility to appeal to labour courts in the event of dismissal (Bentolila and Dolado, 1994).

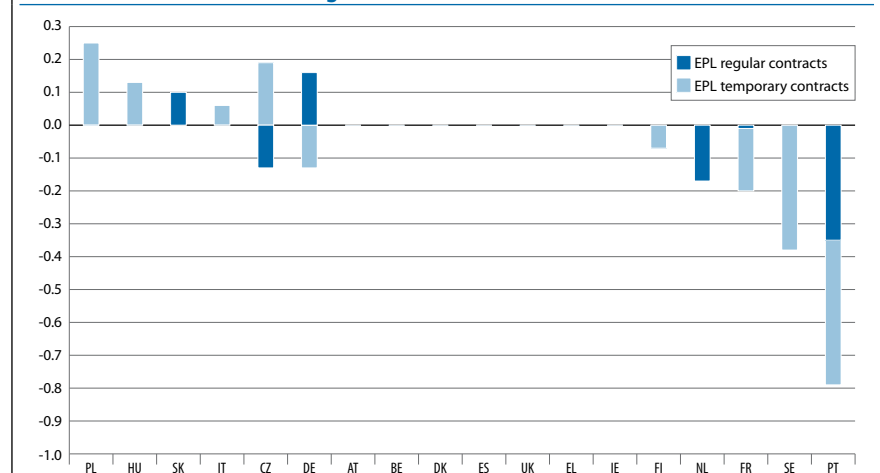
Chart 4: Reforms of Employment Protection Legislation in the EU: change of EPL index from 1985 to 2003



Source: DG EMPL calculations on EPL data available at www.oecd.org/employment/protection.

Notes: the chart shows the change in the overall indicator of EPL strictness calculated by the OECD (OECD, 2004, Venn, 2009), excluding rules on collective dismissals. The indicator is the arithmetic average of two sub-components, namely regulations on dismissals of permanent employees (encompassing severance pay, advance notice periods, procedural requirements for dismissals, role of courts) and regulations on the use of contracts of limited duration (type of jobs, maximum legal duration, possibility for renewals, etc.). Both indicators vary from 0 to 6 with a higher score indicating stricter regulations. Only countries with available EPL data are shown in the chart, hence those without a bar in the chart did not introduce EPL reforms or made changes in EPL which cancel out in the time period considered.

Chart 5: Reforms of Employment Protection Legislation: change in EPL from 2003 to 2008



Source: DG EMPL calculations on EPL data available at www.oecd.org/employment/protection.

See also notes in chart 4 above.

However Spain is far from being a unique case and other EU Member States have also introduced two-tier reforms as shown in Chart 4 and Chart 5, which break down changes in the overall EPL indicator from the mid-1980s to 2008 between permanent contracts (dark blue) and temporary contracts (bright blue).

These charts indicate that changes in the overall EPL indicator mainly reflect developments with regard to temporary contracts, particularly in Belgium, Denmark, Germany, Greece, Italy, Netherlands, Portugal and Sweden⁽¹⁴⁾. The situation in France has changed over time in ways that are not captured in the charts. Temporary contracts were introduced in 1979 but their use was then restricted during the 1980s, prior to being relaxed during the 1990s with the possibility of using short-term contracts (CDD)⁽¹⁵⁾ for targeted groups of workers (Blanchard and Landier, 2002).

The prevalence and scale of two-tier reforms highlight the limitations of some of the literature on the impact of EPL on labour market performance, which tends to focus largely on complete reforms⁽¹⁶⁾, and to overlook the impact of two-tier reforms. A specific theoretical framework is required for the latter in order to identify policy effects.

Boeri and Garibaldi (2007) and Boeri (2010b) have attempted to fill this gap with an extension of the widely used Mortensen and Pissarides search and matching model, in which it is possible to distinguish *existing* jobs that are affected by EPL⁽¹⁷⁾ from *newly created* jobs which can be terminated

(14) The large deregulation carried out in Spain predates the periods covered by EPL figures and so it is not identified in the Charts.

(15) 'Contrat à Durée Déterminée'.

(16) Looking either at cross-country differences in the level of EPL or at within-country changes in EPL intensity over time.

(17) In this framework, EPL is represented for simplicity as a sum of money firms need to pay when dismissing a worker. Such money is 'pure waste', i.e. is not used for any purpose (such as redistribution, financing public goods etc.).

at no cost to the firm during a limited period, thereafter being transformed into permanent jobs and subject to firing 'taxes'. Hence, entry jobs are equivalent to temporary jobs with no employment protection. Results obtained using this framework suggest that the effects of two-tier EPL reforms on aggregate variables can differ substantially from those of complete reforms.

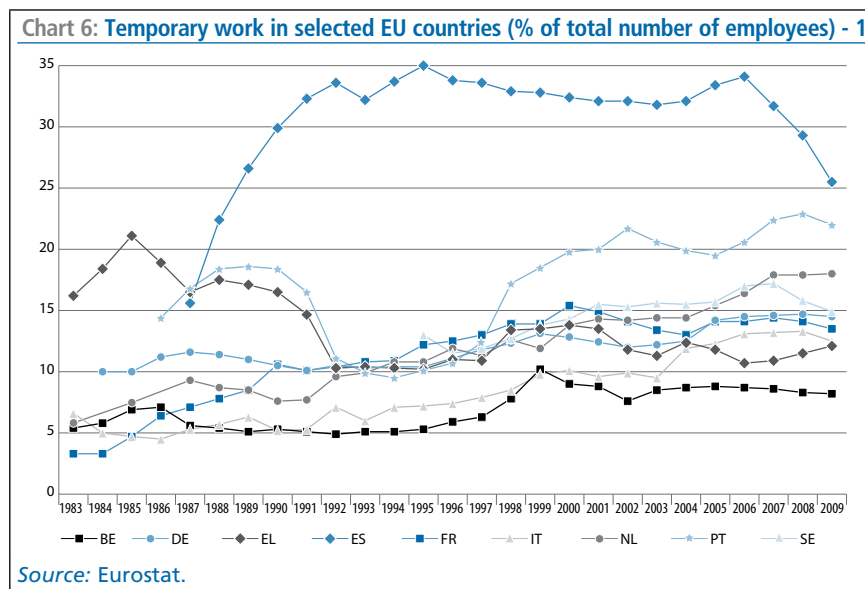
On the one hand, applying uniform firing 'taxes' lowers both job loss and finding rates (as firing 'taxes' discourage hiring)⁽¹⁸⁾ with ambiguous effects on aggregate unemployment and wages⁽¹⁹⁾. On the other hand, if firing taxes only apply to continuing jobs, firms have an incentive to use entry jobs (instead of continuing ones) as a mechanism to adjust total labour demand. Regulatory asymmetry between the two types of jobs will increase both hiring rates (as entry jobs are exempted from firing taxes) and job loss rates for entry jobs as firms circumvent increasing firing taxes through a reduction in conversion rates

of entry jobs into continuing ones⁽²⁰⁾. Overall, while introducing uniform EPL on all types of jobs unambiguously reduces total labour turnover, a two-tier EPL system may increase it as long as a larger turnover on entry jobs more than offsets the reduced turnover on continuing ones.

3.2. Two-tier EPL and the growth of temporary work

There is a rich literature, largely based on the Spanish experience (e.g. Dolado et al., 2002; Bentolila et al., 2008), which looks at the effects of the extensive use of temporary work on labour market outcomes, such as employment, unemployment, wages and labour flows.

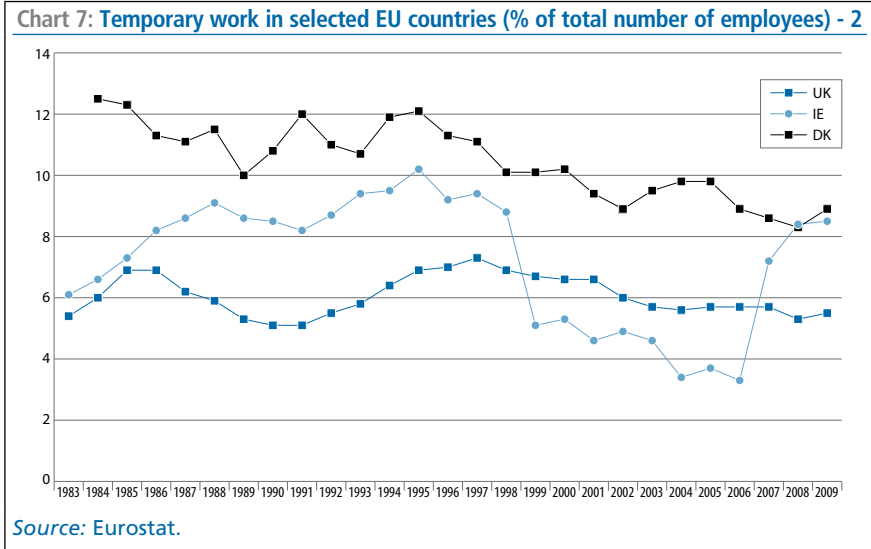
This literature suggests that two-tier EPL reforms lead to a more frequent use of temporary contracts as an entry mode into employment. As a result, a number of EU Member



(18) The latter reflects the reduced number of open vacancies.

(19) The ambiguous effect on wages results from two opposite effects: the rising bargaining strength of workers and the presence of more low-productivity and low paid jobs in equilibrium.

(20) Firms also aim to avoid greater labour costs associated with continuing jobs. The latter category enjoys greater bargaining strength vis-à-vis employees in entry jobs thanks to higher firing costs, resulting in higher wages compared to the entry/fixed-term wages.



The positive correlation between two-tier EPL reforms and the share of employees in temporary work is illustrated in Chart 8 and Chart 9. Following the OECD (2004), Chart 8 identifies the magnitude of segmentation in EPL regimes, calculating the relative gap between the EPL indicators for permanent vs. temporary contracts. Changes in the EPL gap are correlated with changes in the share of employees in temporary employment. Estimates cover a large number of EU Member States for two age groups: young workers (15-39) and all workers (15-64).

States have registered a sharp increase in the share of employees in temporary work in past decades (Bentolila et al., 2008; Boeri, 2010a). Chart 6 shows that Member States that introduced large two-tier EPL reforms have seen a trend increase in temporary employment as a share of total number of employees since the mid-1980s. Spain registered the most rapid growth in the incidence

of temporary jobs, rising from 11% of total employment in 1983 to approximately 35% in 1995 (Guell and Petrongolo, 2003). Conversely, Chart 7 indicates that, in Member States characterised by relatively less stringent regulations for permanent contracts, i.e. UK, Denmark and Ireland, there has been no trend increase in the incidence of temporary employment.

Following Boeri (2010b), Chart 9 shows that in 2008, strict EPL for permanent contracts tended to be associated with a higher share of temporary employment across EU Member States. This suggests that firms are effectively being encouraged to use temporary contracts as a way to circumvent rigid dismissal rules on permanent contracts, with a stronger effect on workers in the 15-39 age group.

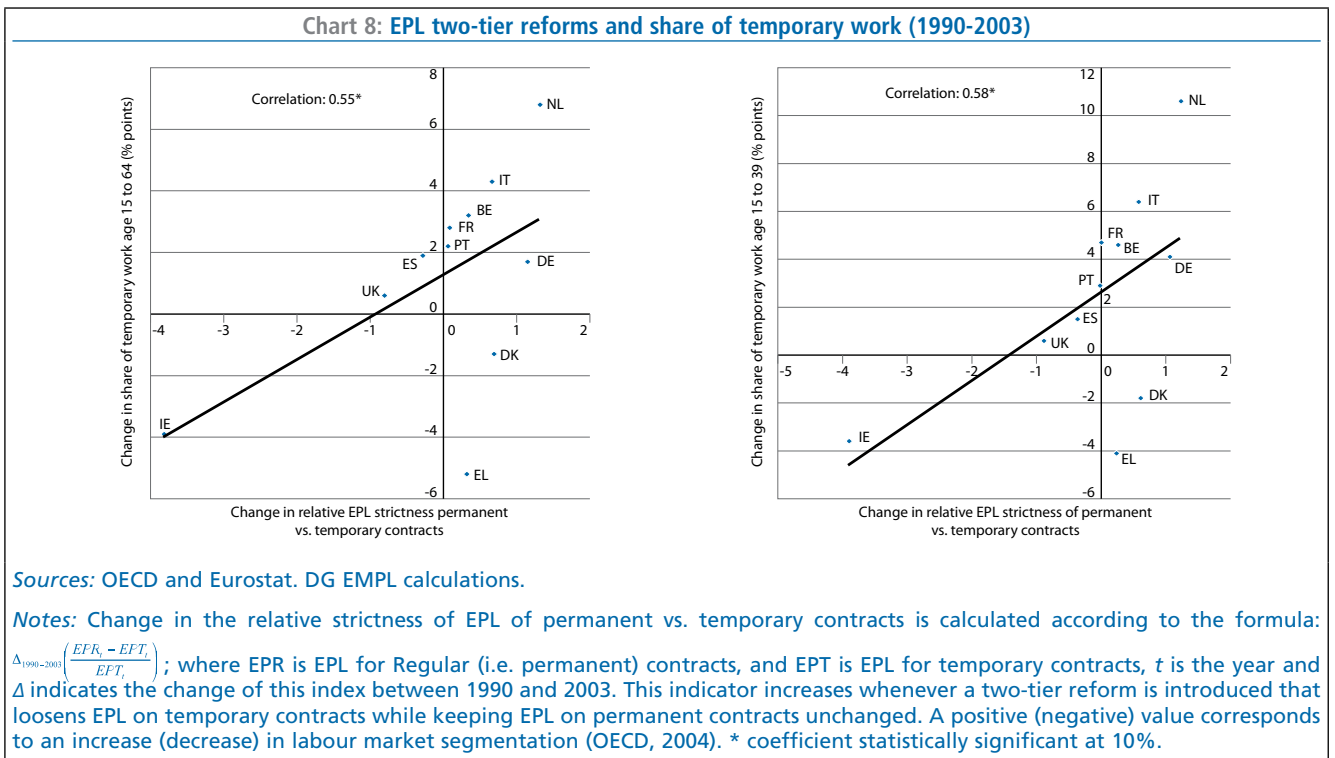
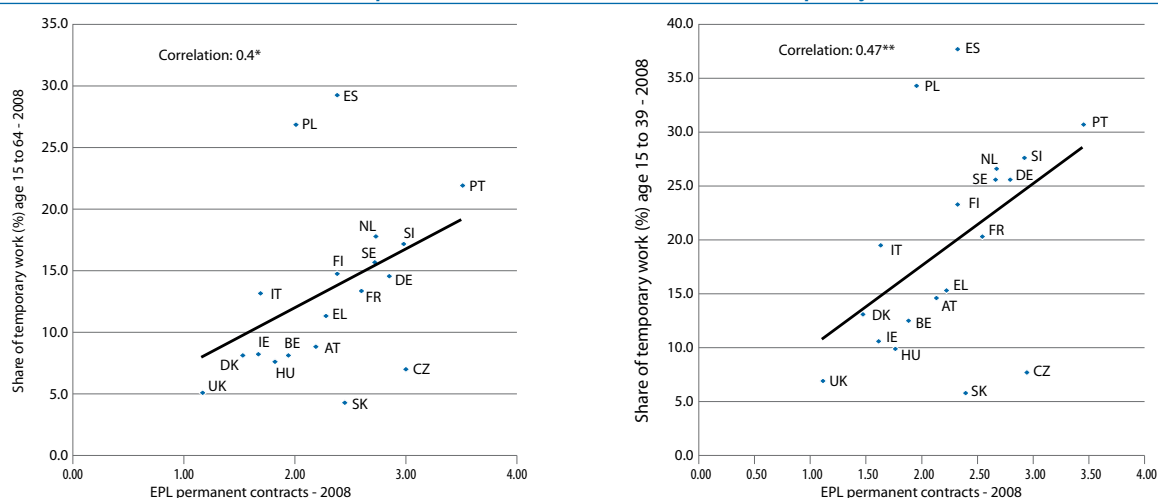


Chart 9: EPL on permanent contracts and incidence of temporary work



Sources: Eurostat and OECD. DG EMPL calculations.

Notes: *, **: correlation coefficients statistically significant at the 10% and 5%, respectively.

4. SEGMENTATION AND YOUTH

4.1. Incidence of temporary work for young workers

In most EU Member States, the proportion of young people in employment who are working in temporary jobs is very high, especially among those under 25 years of age, where 40% are in this position (Table 2). However, this overall figure for the EU masks a large cross-country heterogeneity as the share of temporary employment among workers in the 15 to 24 age group ranges from more than 50% in Germany, Spain, France, Poland, Portugal, Sweden and Slovenia to less than 20% in Bulgaria, Czech Republic, Cyprus, Latvia, Lithuania, Malta, Romania, Slovakia and United Kingdom. According to an OECD (2008) report these shares have increased in the past decade.

Chart 10 and Chart 11 plot the time trend of the incidence of temporary work for young workers (i.e. 15 to 39 years of age). Figures are higher than for the total working age population, showing that temporary contracts are more frequently used among young workers (i.e. age 15 to 24) and prime-age

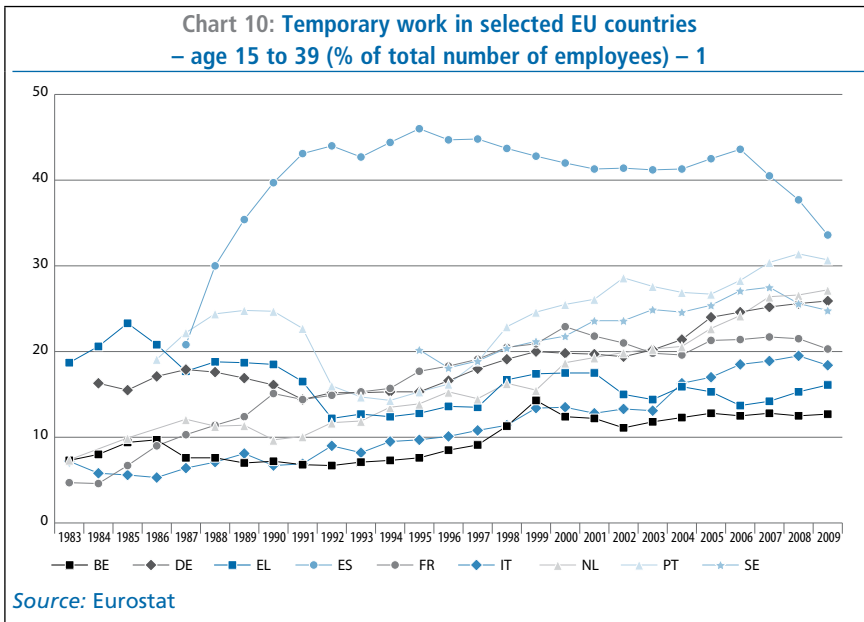
workers in the 25-39 age bracket than for the total working age population (15-64). Compared to Chart 8, Chart 10 suggests that, in countries which have introduced two-tier EPL reforms, the trend increase in the share

of temporary work has been more pronounced for younger workers than for total employment. Conversely, no trend increase in the use of temporary contracts was detected in Denmark, Ireland and United Kingdom (see Chart 11).

Table 2: Share of temporary contracts in percentage of total employees

Countries	Between 15 and 24 years		Between 25 and 49 years		Between 50 and 64 years		Between 15 and 64 years	
	2007	2009	2007	2009	2007	2009	2007	2009
Austria	34.9	35.6	4.7	4.9	2.5	3.0	8.9	9.1
Belgium	31.6	33.2	6.9	6.8	4.3	3.3	8.6	8.2
Bulgaria	10.3	9.3	4.5	3.9	5.0	5.0	5.1	4.6
Cyprus	23.3	18.4	14.0	15.0	5.2	6.1	13.3	13.5
Czech Republic	17.4	18.7	5.8	5.5	9.5	9.2	7.8	7.5
Denmark	22.2	23.6	7.0	7.2	4.1	3.2	8.6	8.9
Estonia	na	na	na	2.2	na	na	2.2	2.5
Finland	42.4	39.0	14.1	13.4	7.6	7.1	15.9	14.5
France	52.5	51.2	11.4	10.4	5.9	6.4	14.4	13.5
Germany	57.5	57.2	9.9	10.2	4.7	4.7	14.6	14.5
Greece	27.0	28.4	10.5	11.9	6.1	6.7	10.9	12.1
Hungary	19.1	21.4	6.8	8.2	4.8	5.6	7.3	8.4
Ireland	19.2	25.0	4.8	6.4	4.2	5.1	7.2	8.5
Italy	42.3	44.4	12.2	11.6	6.3	5.7	13.2	12.5
Latvia	9.3	9.3	3.5	3.8	3.2	3.7	4.2	4.4
Lithuania	9.8	5.0	2.9	2.1	2.9	na	3.5	2.3
Luxembourg	34.1	39.3	5.6	5.3	na	na	6.8	7.2
Malta	11.0	11.0	3.8	3.8	na	na	5.1	4.7
Netherlands	45.1	46.5	14.1	14.1	6.8	6.9	17.9	18.0
Poland	65.7	62.0	25.1	23.6	18.2	18.4	28.2	26.4
Portugal	52.6	53.5	21.1	21.3	10.6	10.1	22.4	22.0
Romania	4.6	3.7	1.4	0.8	0.9	0.7	1.6	1.0
Slovakia	13.7	12.5	3.9	3.5	4.0	3.6	5.0	4.3
Slovenia	68.3	66.6	14.0	12.5	6.7	6.0	18.4	16.2
Spain	62.8	55.9	31.0	25.7	15.3	12.0	31.7	25.5
Sweden	57.1	53.4	14.0	12.0	7.3	5.8	17.2	14.9
United Kingdom	13.3	11.9	4.3	4.5	4.3	4.2	5.7	5.5
EU 27	41.1	40.2	12.3	11.5	6.8	6.5	14.5	13.4

Sources: Eurostat.



4.2. Temporary contracts and hiring

The evidence shows that two-tier EPL reforms have dramatically raised the proportion of new recruitments made on temporary contracts (Cahuc and Postel-Vinay, 2001). Based on micro data from the Spanish Labour Force Survey covering the period 1987 to 1994, Bovez and Gomez (2004) found that exit rates from unemployment into temporary contracts are ten times larger than exit rates into permanent ones. Thus temporary contracts play a particularly important role as a mode of entry into the labour market, particularly for young workers (Chart 12).

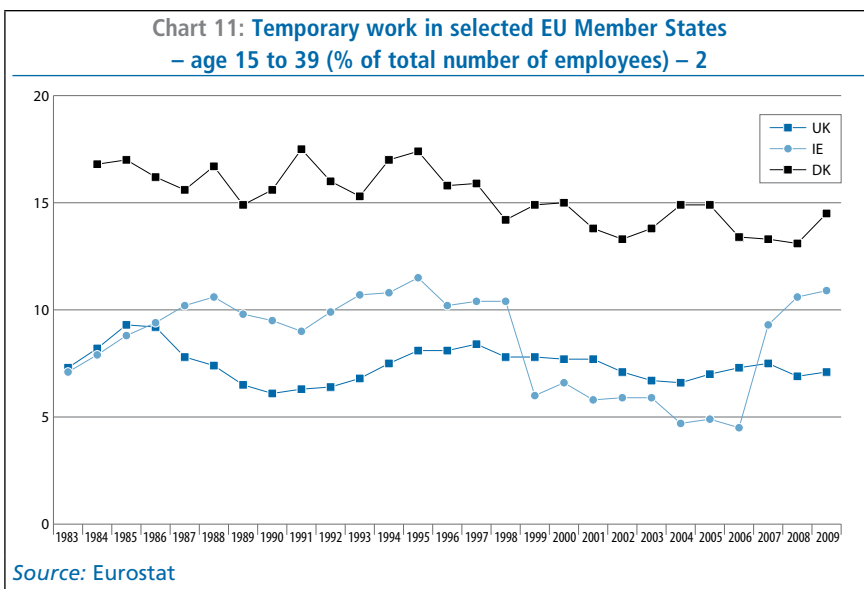


Chart 12 presents figures for the share of temporary workers among employees with short tenure in their current job (i.e. less than one year). Using short tenure employees as a proxy for new recruitments, this measure provides an indication of the extent to which firms use temporary contracts, which should, in principle, be greater in countries that have pursued more vigorous two-tier EPL reform strategies.

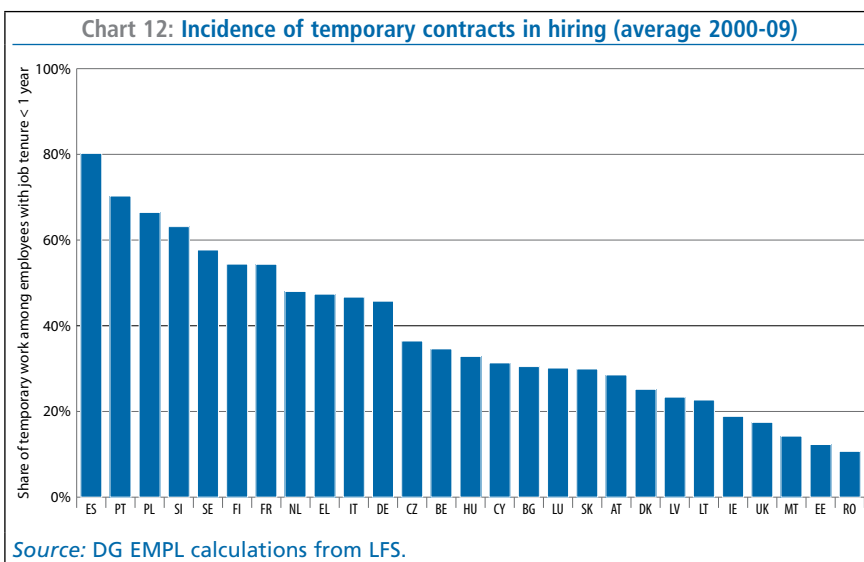


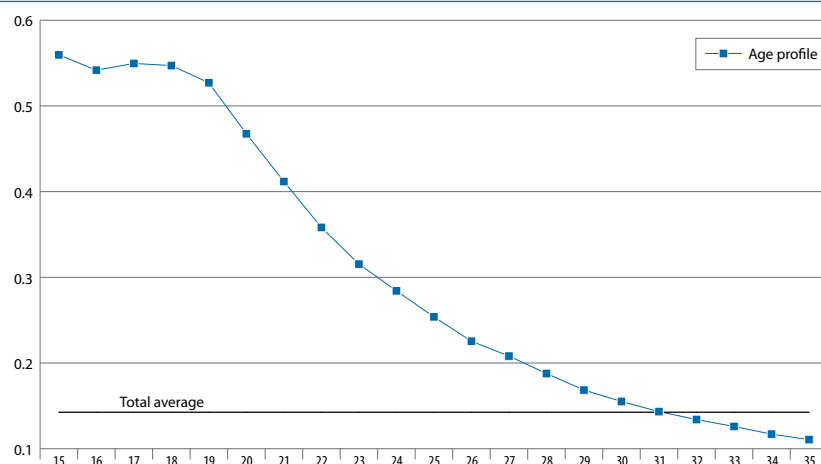
Chart 12 shows a considerable cross-country variability in the incidence of temporary contracts for short-tenured employees, with higher rates in countries that have implemented two-tier EPL reforms through the liberalisation of temporary contracts, i.e. Germany, Greece, Spain, France, Italy, Portugal and Sweden, all of which have figures greater than 45%, with peaks of 80% in Spain and 70% in Portugal. Conversely, temporary contracts account for a relatively low share of new recruitment in Romania (about 10%), in the Baltic countries, in the UK (about 17%), Ireland (about 19%) and Denmark (about 25%).

The incidence of temporary work in the EU has a marked age profile (Chart 13), which also provides evidence of the large-scale use of temporary contracts as a hiring tool, especially concentrated among the youngest segment of the labour force. On average, in the period 2005-2008, slightly more than one in every two youths aged 20 or less in work in the EU had a temporary contract. The incidence of temporary contracts gradually declines with age, but still remains above the average of all employees until about 30 years of age.

The age profile of temporary contracts takes around ten years to converge towards the overall average, suggesting that, in some Member States, young people have considerably more difficulty moving into permanent jobs than they do in others. Chart 14 plots those Member States that have an age profile 20% or more above the EU average (Spain, Poland, Portugal, Slovenia, Finland and Sweden).

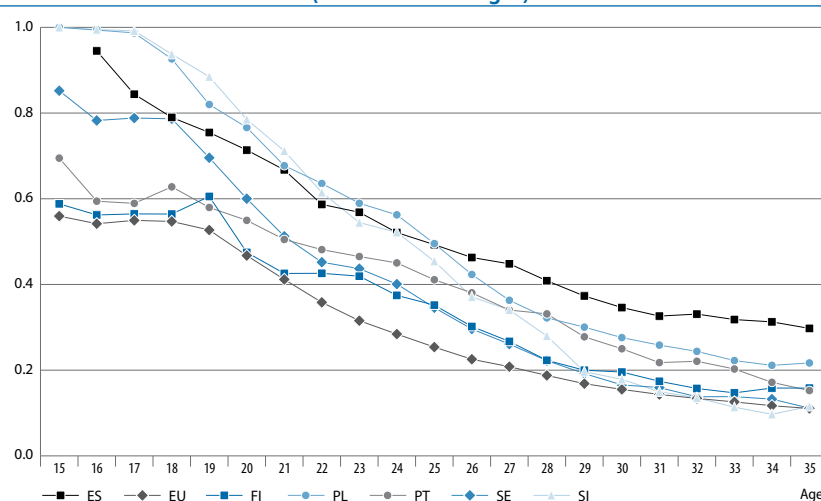
The evidence also shows that, although the share of temporary contracts in Germany and France converge to the EU average rather rapidly (at around age 25, Chart 15), only at around 30 years of age does it converge towards the respective national averages (Table 3).

Chart 13: Share of temporary employees in all contracts
(2005-2008 average in the EU)



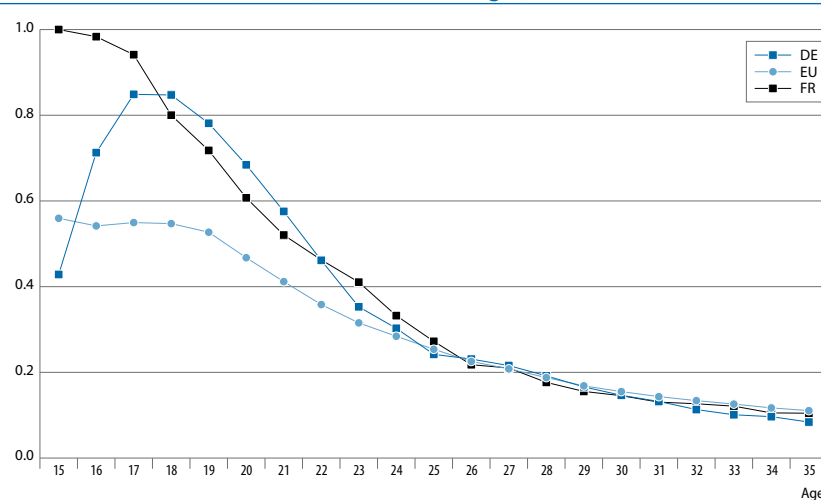
Source: EU LFS, DG EMPL calculations.

Chart 14: Share of temporary contracts in all contracts
(2005-2008 averages)



Source: EU LFS.

Chart 15: Share of temporary contracts in all contracts
(2005-2008 averages)



Source: EU LFS.

Table 3: Share of temporary contracts in all contracts (2005-2008 averages) and total incidence of temporary work

Country	20 years	25 years	30 years	35 years	Total (15-64)
AT	0.23	0.10	0.06	0.05	0.09
BE	0.37	0.18	0.09	0.06	0.09
BG	0.12	0.07	0.06	0.05	0.06
CY	0.19	0.21	0.17	0.14	0.14
CZ	0.25	0.10	0.06	0.06	0.08
DE	0.68	0.24	0.15	0.08	0.15
DK	0.35	0.19	0.10	0.07	0.09
EE	0.11	0.04	0.04	0.03	0.03
ES	0.71	0.49	0.35	0.30	0.32
FI	0.47	0.35	0.20	0.16	0.16
FR	0.61	0.27	0.15	0.10	0.14
EL	0.33	0.20	0.13	0.10	0.11
HU	0.23	0.11	0.07	0.06	0.07
IE	0.19	0.07	0.05	0.04	0.06
IT	0.51	0.27	0.15	0.11	0.13
LT	0.17	0.06	0.04	0.04	0.04
LU	0.54	0.15	0.07	0.05	0.06
LV	0.17	0.06	0.05	0.07	0.07
MT	0.12	0.07	0.04	0.06	0.04
NL	0.43	0.26	0.16	0.11	0.17
PL	0.77	0.50	0.28	0.22	0.28
PT	0.55	0.41	0.25	0.15	0.21
RO	0.06	0.03	0.02	0.02	0.02
SE	0.60	0.35	0.17	0.11	0.17
SI	0.79	0.45	0.18	0.12	0.18
SK	0.19	0.08	0.04	0.04	0.05
UK	0.12	0.08	0.05	0.05	0.06
EU	0.47	0.25	0.16	0.11	0.14

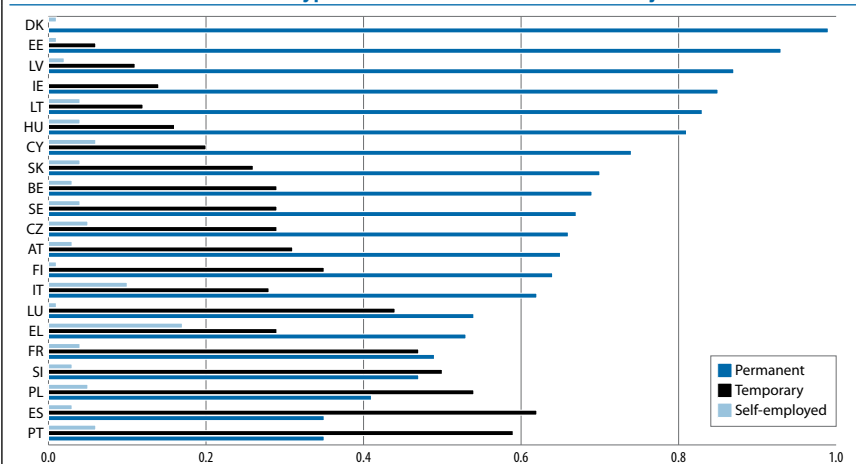
Source: EU LFS, DG EMPL calculations.
In bold values higher than the EU average by 20% or more.

to 2007, the use of permanent labour contracts is the more common type of labour contract for the first regular job. However, the incidence of temporary work is relatively important in many Member States. In four Member States (Spain, Poland, Portugal and Slovenia) temporary contracts are more common than permanent ones, and in two Member States (France and Luxembourg) figures are quite similar between the two⁽²³⁾.

LFS data from the anonymised micro-data set for 2007 was used to calculate the share of workers in temporary and permanent jobs by gender, qualification and years since leaving school. Although there are large national differences, the following patterns emerge:

1. Recent school leavers tend to pass through temporary contracts;
2. Low-qualified youth have more difficulty and take more time to find a permanent job;
3. Overall no significant gender gaps seem to be present in the data.

Chart 16: Type of labour contract of the first job



Source: EU SILC longitudinal component.
Ranking countries by descending order of the share of permanent contracts.

These patterns are broadly consistent with OECD's (2008) results in that temporary work serves as a major entry mode into permanent jobs for many young people, since the share of recent school leavers in temporary jobs declines rapidly during the first five years after initial education, particularly in the countries where this share is initially very high. However, in some countries a considerable proportion of working young are still in temporary jobs five years after leaving school, suggesting that they become trapped.

The large sample size of the LFS anonymised microdata set for 2007 makes it possible to analyse the

The longitudinal component of EU SILC⁽²¹⁾ can be used to specifically identify the distribution of the type of labour contract used in the first regular

job (Chart 16).⁽²²⁾ In a large majority of the 21 Member States for which data are available for the period 2004/2005

(21) EU Statistics on Income and Living Conditions (EU SILC).

(22) Using the variables PL190 (When began first regular job); PL140 (Type of contract); and PX020 (Age at the end of the income reference period).

(23) The reader should be aware that Chart 16 captures something different from Chart 12, as the latter considers all recruitments, i.e. not only those in first jobs. Moreover, the reference population is the total number of employees in Chart 12, whereas it is total employment (i.e. also including self-employment) in Chart 16.

5. SCHOOL-TO-WORK TRANSITIONS AND YOUTH NOT IN EMPLOYMENT, EDUCATION OR TRAINING (NEET)

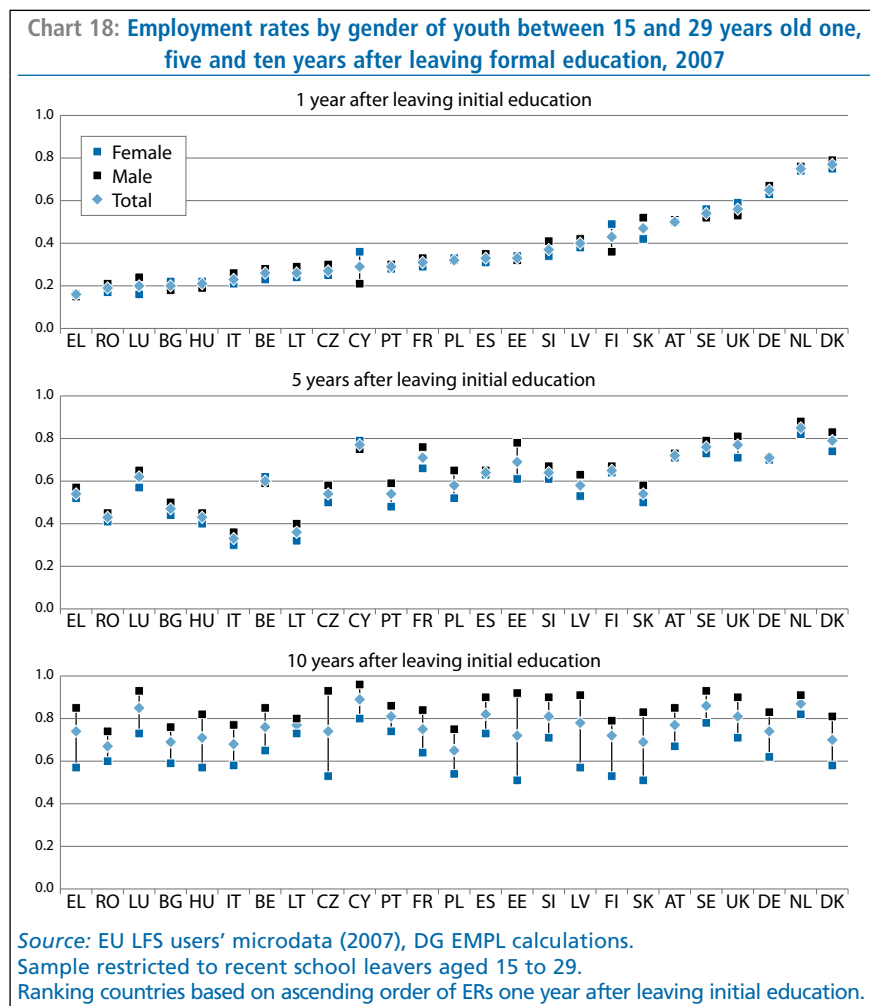
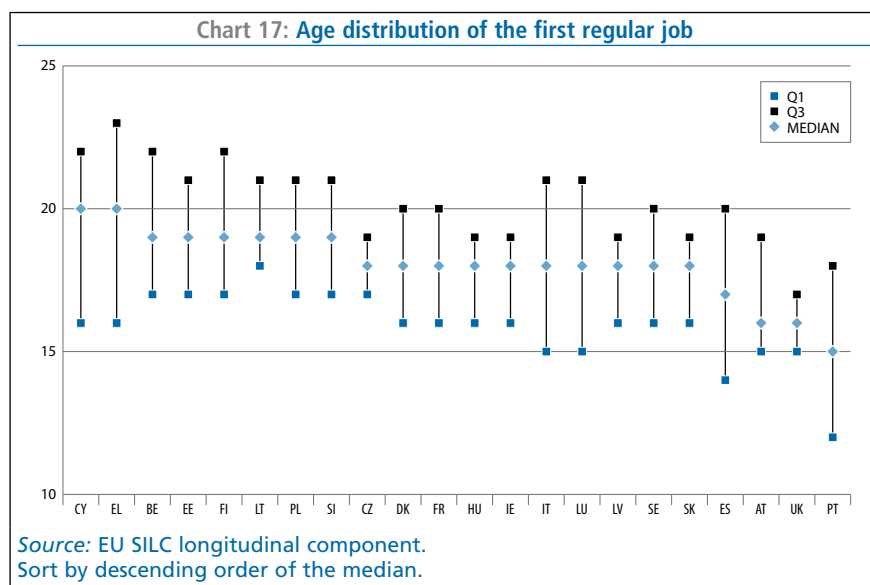
5.1. Youth employment rates after leaving initial education

Young people moving from education into work are at a particularly vulnerable point in their lives, and this is especially the case for the least qualified, who will generally experience the greatest difficulties in establishing a foothold in the labour market. Although this chapter does not include a comprehensive examination of the school-to-work transition literature and data⁽²⁴⁾, given the challenges faced by many young people at the start of their working lives, compounded in some circumstances by excessive labour market segmentation, it is important to note some of the stylised facts concerning school-to-work transitions.

Chart 17 presents the age distribution for the first 'regular' job⁽²⁵⁾, noting that the median age varies from 20 in Greece and Cyprus to 15 years in Portugal.

(24) OECD (2008) provides a comparative analysis of school-to-work transition, making use of both cross-sectional and longitudinal data. The OECD has also recently conducted a country-by-country thematic review, *Jobs for Youth*, intended to provide the basis for a comprehensive re-assessment of youth labour market outcomes and policies facilitating their integration in the labour market.

(25) It explores the information content of the variable 'When began the first regular job' (PL190), which is part of the EU SILC longitudinal component. 'Regular job' is a self-reported variable. Normally, the job considered should be the first one involving 15 hours or more per week which lasted for at least 6 months, unless it was terminated by a period of unemployment or by another job. If the person starts working in a formal regular work, during his/her studies, this work should be considered as the first regular job. Therefore, some respondents reported a first job age below the legal minimum.



impact of gender and education levels. The data suggests that early school leavers are particularly at risk of becoming trapped in temporary jobs because, five years after finish-

ing initial education, more than 40% of low qualified young workers are in temporary contracts in Germany, Spain, France, Italy, Poland, Portugal, Slovenia and Sweden.

Table 4: Share of youth not in education, employment or training (NEET) in 2007

COUNTRY	Gender		Education			Work status		
	Women	Men	Low	Medium	High	Inactivity	Unemployment	Total
AT	0.076	0.100	0.079	0.098	0.060	0.055	0.033	0.088
BE	0.122	0.102	0.116	0.111	0.098	0.061	0.051	0.112
BG	0.206	0.187	0.181	0.218	0.162	0.156	0.040	0.196
CY	0.096	0.227	0.060	0.252	0.177	0.134	0.029	0.163
CZ	0.091	0.049	0.051	0.087	0.055	0.038	0.031	0.069
DE	0.097	0.095	0.092	0.102	0.101	0.053	0.043	0.096
DK	0.039	0.053	0.047	0.046	0.021	0.029	0.017	0.046
EE	0.101	0.100	0.098	0.104	0.100	0.072	0.029	0.100
ES	0.138	0.105	0.157	0.077	0.083	0.068	0.053	0.121
FI	0.086	0.105	0.070	0.123	0.201	0.065	0.030	0.096
FR	0.106	0.098	0.116	0.100	0.064	0.044	0.058	0.102
EL	0.148	0.083	0.077	0.129	0.309	0.054	0.061	0.115
HU	0.126	0.099	0.112	0.111	0.141	0.071	0.042	0.113
IE	0.104	0.089	0.122	0.083	0.063	0.058	0.038	0.096
IT	0.172	0.151	0.157	0.171	0.112	0.109	0.053	0.162
LT	0.078	0.062	0.049	0.093	0.066	0.053	0.017	0.070
LU	0.066	0.048	0.065	0.047	0.158	0.021	0.036	0.057
LV	0.136	0.106	0.116	0.127	0.133	0.089	0.032	0.121
NL	0.046	0.034	0.050	0.030	0.018	0.026	0.014	0.040
PL	0.119	0.093	0.051	0.152	0.136	0.057	0.049	0.106
PT	0.128	0.097	0.123	0.076	0.215	0.051	0.061	0.112
RO	0.158	0.125	0.141	0.140	0.198	0.080	0.062	0.142
SE	0.083	0.091	0.075	0.104	0.043	0.043	0.044	0.087
SI	0.066	0.068	0.054	0.075	0.129	0.040	0.027	0.067
SK	0.141	0.110	0.101	0.144	0.188	0.058	0.068	0.125
UK	0.147	0.110	0.243	0.113	0.076	0.073	0.055	0.128

Source: LFS anonymised microdata set. DG EMPL calculations.
Sample restricted to youth aged 15 to 24 years.

Chart 18 presents employment rates for people between 15 to 29 years of age, one, five and ten years after having completed initial education. One year after completion of initial education, a significant proportion of young people are not in employment, although the situation varies considerably across EU Member States - with employment rates varying from 16% in Greece to 77% in Denmark.⁽²⁶⁾ Gradually youth employment rates converge to those of the 25-49 prime-age section of the population. Although employment rates for men and women are very similar one year after completing school, a gender gap progressively emerges as marriage and motherhood begin to reduce the participation rates of young women. However, the employment rate gender gap ten years after school completion varies considerably across Member States - from 6% in Lithuania to 41% in Estonia in 2007.

Although there are considerable differences between Member States, the important general finding is that youth with low qualifications have significantly lower employment rates one, five and ten years after leaving initial education (OECD, 2008). These results confirm that low educational attainment presents an enduring barrier to employment (i.e. better educated young people experience a quicker transition to employment) while showing that it also appears to impede initial insertion in the labour market.⁽²⁷⁾ However, despite a large cross-country variation, most Member States with high overall employment rates for recent school leavers achieve relatively high employment rates for youth of all levels of education.

5.2. Youth Not in Education, Employment or Training (NEET)

The proportion of NEET out of the total population in the 15 to 24 age group gives an overall measure of the share of youth that are left behind (see Table 4). Quintini et al. (2006) show that a majority of youth in NEET only stay transitorily in that situation (as the turnover of youth in NEET tends to be considerably higher than for adults), although there is evidence that, in several EU Member States, a small share of young people may remain in that situation for too long, suggesting the existence of a group of disadvantaged young people who are difficult to mobilise into work. The authors also find evidence that early school leavers are disproportionately likely to be recorded as unemployed or NEET.

Evidence from the LFS anonymised microdata set for 2007 suggests that NEET rates vary considerably across

(26) Given the illustrative purposes of this exercise, indicators were calculated only for the year 2007, because of the very large dimension of the users' LFS micro dataset.

(27) OECD (2008) argues that an age effect also probably depresses initial employment rates for low skilled youth still living with their parents and delaying entry to the labour market.

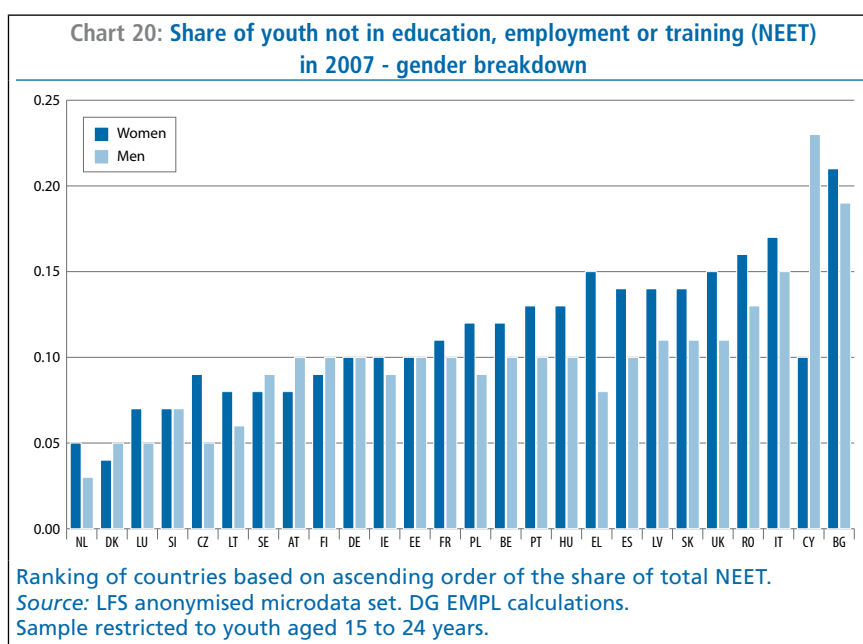
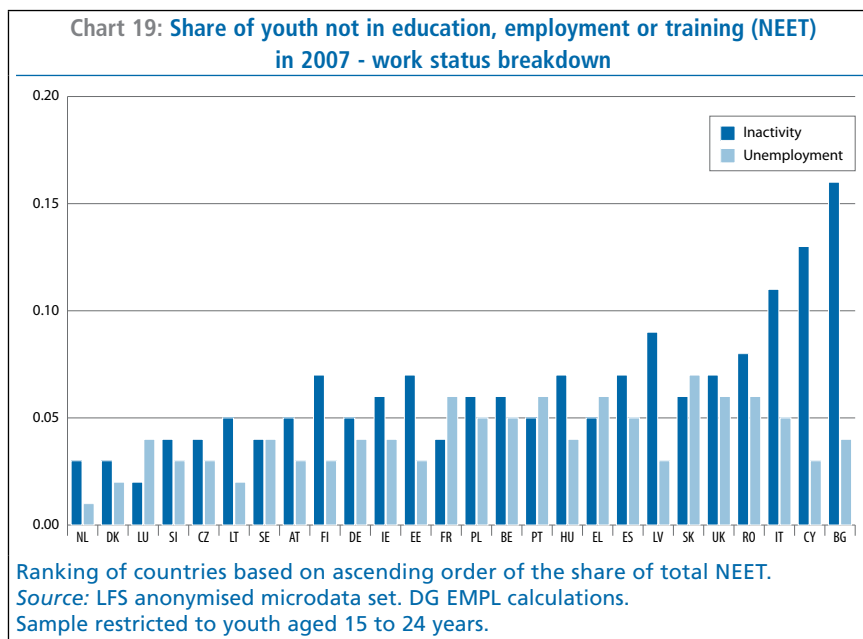
Member States (see Table 4 and Chart 19 to Chart 21). In most Member States, a higher proportion of youth in NEET status are reported as inactive rather than unemployed (Chart 19).

In most Member States, the proportion of young women in NEET status is slightly higher than that of men (Chart 20). The breakdown of NEET by education level shows considerable variation across countries. In some MS (Denmark, Ireland, Spain, France, Italy, Netherlands, Austria, Sweden and UK), young people with higher education levels have lower NEET rates, while in others (Greece, Luxembourg, Portugal, Romania, Slovakia, Slovenia, and Finland) there is a higher NEET incidence for youth with tertiary education (Chart 21). The latter might be related to the problem of under-utilisation of skills, which arises when young people are called upon to perform tasks which require fewer or lower skills that they had acquired in initial education. There is evidence suggesting that the incidence of under-utilisation of skills has increased in a majority of countries for which estimates are available (Quintini et al., 2006).

LFS micro data was used to create a synthetic cohort of people aged between 18 and 24 in 2004, which was then followed up during the period 2005 to 2007 in order to monitor the incidence of NEET. NEET status tends to be highly persistent (Table 5, upper panel), but the decline observed between 2004 and 2007 is statistically significant (Table 5, lower panel).⁽²⁸⁾

Given the increasing role played by temporary and part-time jobs as entry modes into employment, there are policy concerns about the possibility for young people to progressively move into more stable and well paid jobs, using temporary or low-paid jobs as stepping stones.

(28) The number of observations refers to the number of group averages considered. Three breakdown variables were used: for country, gender and education.



As far as pay is concerned, young people who have limited previous work experience, or none at all, are more likely to receive low wages. Low pay⁽²⁹⁾ is a rather common feature of jobs performed by young people. Using ECHP⁽³⁰⁾ data between 1995 and 2001, Quintini and Martin (2006) found that the incidence of low pay among young workers tends to decrease over time and exit rates from low pay are relatively high, and higher than exit rates from non-employment, supporting the

(29) Defined as an hourly wage lower than 2/3 of the median wage.

(30) European Community Household Panel.

argument that it is better (for career progression) to be working in a low-paid job than to have no job at all.⁽³¹⁾

Even in the absence of labour market segmentation, school-to-work transitions can involve significant challenges, mainly reflecting the way fluctuations in economic activity have an amplified impact on youth labour market outcomes (see 8.2),

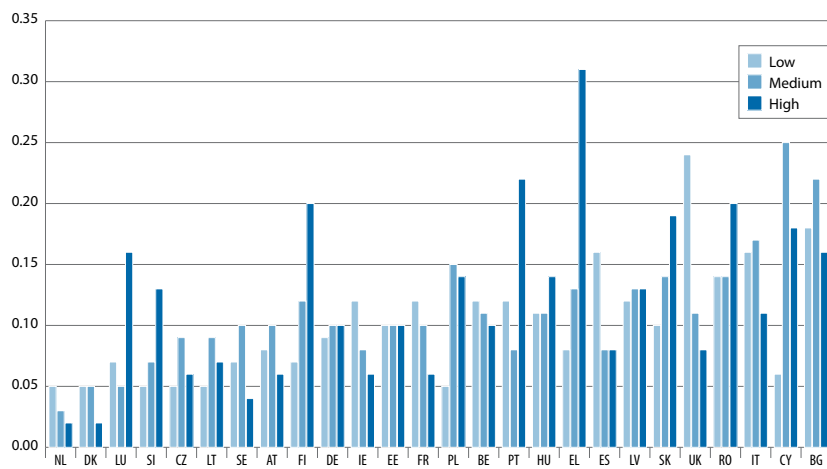
(31) Quintini and Martin (2006) present evidence suggesting that low-pay traps for youth (i.e. persons spending 2 to 3 years in low-paid jobs while working for 5 years) are less likely than NEET (Not in Employment, Education or Training) traps.

Table 5: Synthetic cohort followed between 2004 and 2007

		Panel A: Correlations							
		2005	2006	2007					
2004	Pearson Correlation	.938	.914	.881					
	Sig. (2-tailed)	.000	.000	.000					
	N	194	202	203					
		Panel B: Paired Differences				t	df	Sig. (2-tailed)	
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference					
				Lower	Upper				
NEET in 2004 - NEET in 2007		.01927	.06780	.00476	.00988	.02865	4.049	202	.000

Source: LFS anonymised microdata set. DG EMPL calculations. Sample restricted to youth aged 15 to 24 years.

Chart 21: Share of youth not in education, employment or training (NEET) in 2007 - education breakdown



Ranking of countries based on ascending order of the share of total NEET. Source: LFS anonymised microdata set. DG EMPL calculations. Sample restricted to youth aged 15 to 24 years.

and the negative and lasting effects that spells of unemployment at early ages have on future employment and wage prospects (see 5.3).

5.3. Does youth unemployment produce blemishes or lasting scars?

There is ample evidence that a spell in unemployment early in adult life (i.e. in the early 20s) has long lasting negative effects in terms of both future employment and wage prospects, well beyond the duration of the initial episode, although researchers seems to be somewhat divided as regards the scale of the impact.

In a very influential paper, Ellwood (1979) examined the persistence and long-term impacts of early labour market experiences, focusing on the long-term consequences of early spells out of work for male teenagers. In this work, the author addressed the major technical problem of separating differences in employment and wages that are causally related to early unemployment spells from differences that are due to unobserved personal characteristics correlated with early unemployment.

After controlling for individual differences, Ellwood (1979) found that adverse employment effects decline very quickly, while wage penalties are persistent. He suggests that early non-employment spells impose a heavy cost on those affected by preventing them from accumulat-

Box 1: The YOUNEX⁽¹⁾ project

DG Research is carrying out a research project on youth at risk of exclusion, namely the YOUNEX ("Youth, Unemployment and Exclusion in Europe") project. It aims to investigate the effects of youth unemployment and precariousness on social and political integration/exclusion, covering 6 European cities in 5 Member States (France, Germany, Italy, Poland and Sweden) plus Switzerland. This project looks at policy, institutional and societal factors which may affect integration/exclusion. Among the tentative conclusions reached so far, it is worth mentioning the following:

1. Risks of exclusion for unemployed and precarious youth vary greatly by country, depending on the labour market policy-mix. Whereas access to unemployment benefits is important, labour market regulations have also an impact, in particular dismissal rules and ease of use of temporary contracts.
2. Integration of the youth can best be achieved through a multi-layer governance, encompassing not only the national and EU levels, but also local institutional actors such as municipalities which often have a better knowledge of the situation and of the risks involved.
3. Besides institutional bodies, civil society organisations often provide important support to youth in unemployment or in precarious situations by, on the one hand, providing opportunities for political participation and awareness and, on the other hand, by offering support services, complementing or filling the gaps of existing welfare systems. For these reasons, the study calls for a closer involvement of such organisations on both the design and implementation of youth policies.

(1) For details see the project's website (<http://www.younex.unige.ch>). It was launched on 1/05/2008 and is due to be completed on 30/04/2011.

ing work experience, which reduces their entire human and social capital, and which is reflected in lower future wages.

Using UK data from the National Child Development Survey (NCDS), Gregg and Tominey (2005) found that unemployment at the age of 23 leaves a sizeable 'wage scar', lasting for the following 20 years. After controlling for a number of individual characteristics, the authors suggest the existence of a causal relation between early unemployment spells and a significant and lasting wage penalty at the age of 42: of 12% to 15% (for multiple spells) or limited to 8% to 10% (for a single spell).

Mroz and Savage (2006), while acknowledging that young people do not fully recover from the adverse impact of unemployment, refute the notion that young men in the United States who experience unemployment necessarily become trapped in a cycle of low-pay (temporary) jobs punctuated by spells of unemployment. Using a US sample from the National Longitudinal Survey of Youth (NLSY), and after controlling for the endogeneity of decisions on the accumulation of human capital, they find that young people react to an unemployment spell by seeking out training in order to mitigate the impact of unemployment on their initial planned profile of human capital.

Using UK data from the NCDS, Bell and Blanchflower (2009) also find that youth unemployment (in a person's early twenties) continues to have a negative effect in terms of unemployment, health status, wages and job satisfaction up to two decades later (compared with the effect of a spell of unemployment in a person's early thirties). In other words, these authors argue that youth unemployment produces permanent scars rather than temporary blemishes.

6. SEGMENTATION, WAGES AND HUMAN CAPITAL FORMATION

6.1. Segmentation and wages

A possible important adverse effect of duality on labour market outcomes may come through *wage pressure*. Boeri (2010b) argues that higher numbers of temporary workers increase the bargaining position of permanent ones, leading to higher wage pressure if trade unions over represent the interests of the latter. Using a large panel data of Spanish firms covering the period 1984 to 1988, Bentolila and Dolado (1994) found that a 1% increase in the share of temporary employment in total employment raised the growth rate of permanent workers' wages by 0.3%. Jimeno and Toharia (1993) also found evidence of higher wage growth in industrial sectors characterised by a higher share of temporary workers. They argue that such effects may arise from the fact that the probability of remaining employed for permanent workers (and so their bargaining power)

increases with the presence of temporary workers (who have a higher probability of being dismissed). A further indication of such effects is provided by Bentolila (2010) who reports for Spain a real wage increase of 2.9% on average during 2009, whereas the employment level fell by 6.8% in the same year, following the economic downturn. Figures for the Spanish construction sector are even more striking indicating a fall of employment by 23% coupled with a 3.9% increase of real wages.

Equally, and conversely, the research literature suggests that temporary contracts often involve a substantial wage penalty for those involved (Jimeno and Toharia, 1993; De la Rica, 2004). The literature on labour market segmentation (e.g. see sections 7 and 8 below) is largely centred on the Spanish experience, reflecting as already mentioned, the seriousness of the problem in that country. Hence, findings and policy recommendations should not be generalised as they do not necessarily apply to other Member States. After controlling for personal and job characteristics, Jimeno and Toharia (1993) found that Spanish permanent workers earned on average around 10% more than temporary

Box 2: Wage penalty estimates for temporary jobs using SES data

This Box reports some econometric estimates using group averages from the Structure of Earnings Survey (SES) conducted in 2006. Similar results were obtained using as dependent variable either the logarithm of the mean or the logarithm of the median of hourly wages.⁽¹⁾ The control variables are: country, gender, age groups, occupation, education levels and type of labour contract (i.e. either permanent or temporary). No additional control variables could be used due to having too few observations in smaller cells, raising issues of data confidentiality. Ordinary least square regressions were estimated weighted by the number of observations in each observation/group average. The regressions involve a total of 9396 observations/group averages.

$$\log(y_j) = b_0 + b_1 X_j^1 + b_2 X_j^2 + b_3 X_j^3 + b_4 X_j^4 + b_5 X_j^5 + b_6 X_j^6 + \varepsilon_j \quad (\text{Eq. 1})$$

Where

j : group average

y_j : logarithm of the mean or median of hourly wages in euros

X^1 : country (26 EU Member States, EU27 excluding Sweden)

X^2 : gender

X^3 : age groups (30-; 30-39; 40-49; 50+)

X^4 : occupation (ISCO1 to ISCO 9)

X^5 : education levels (low; medium; high)

X^6 : type of work contract (temporary; permanent)

(1) Only results obtained using median hourly wages are reported.

Table 6: Analysis of variance table

Dependent Variable: logarithm of the median of hourly wages						
Source	Sum of Squares	Variables	DF	Mean Square	F	Sig.
Corrected Model	57062952		40	1426574	86206979	0,000
Intercept	17809246		1	17809246	1076201833	0,000
Country	43611750	x1	25	1744470	105417252	0,000
Gender	598529	x2	1	598529	36168749	0,000
Age classes	678205	x3	3	226068	13661162	0,000
Occupation	2988498	x4	8	373562	22574137	0,000
Education	407397	x5	2	203698	12309361	0,000
Type of contract	135979	x6	1	135979	8217131	0,000
Error	1375402		83114677	0		
Total	461811618		83114718			
Corrected Total	58438353		83114717			

Adjusted R Squared = 0.976.
All variables are significant at 1%.

ones. Similarly, De la Rica (2004) found evidence of a 5-10% wage penalty for temporary work. It has also been argued that, even if wage discrimination by contract type is illegal, firms may under-classify temporary workers with respect to their occupational category and thereby reduce labour costs (Bentolila et al., 2008). Using EU data, estimates carried out for this chapter suggest that a temporary job involves a substantial 14% wage penalty relative to a permanent one, after controlling for a number of variables (see Box 2, Table 7).

As widely documented in the literature (Blau and Kahn, 1997), men earn significantly higher wages than women even after controlling for measurable characteristics related to their productivity. Using SES data for 2006, when all else is equal, the hourly wages of women are about 19% lower than those of men (see Box 2, Table 7).

6.2. Segmentation, on-the-job training and further education

Temporary work tends to be associated with low participation in vocational training and thereby a reduced accumulation of human capital. Using Spanish 2001 data, Albert et al. (2005) found that workers with only temporary contracts were less likely to receive firm-provided and/or financed training than those with

Table 7: Contrast results					
Dependent Variable: logarithm of the median of hourly wages					
Parameter	Difference	Std. Error	Sig.	95% confidence	
				Lower bound	Upper bound
Type of contract a) Temporary	-0.142	0.000	0.000	-0.142	-0.142
Gender b) Women	-0.191	0.000	0.000	-0.191	-0.190

Reference category: a) permanent; b) men.

permanent ones. Using data from the European Community Household Panel (ECHP), the OECD (2002) also found that having a temporary job had a negative impact on the probability of participating in training.

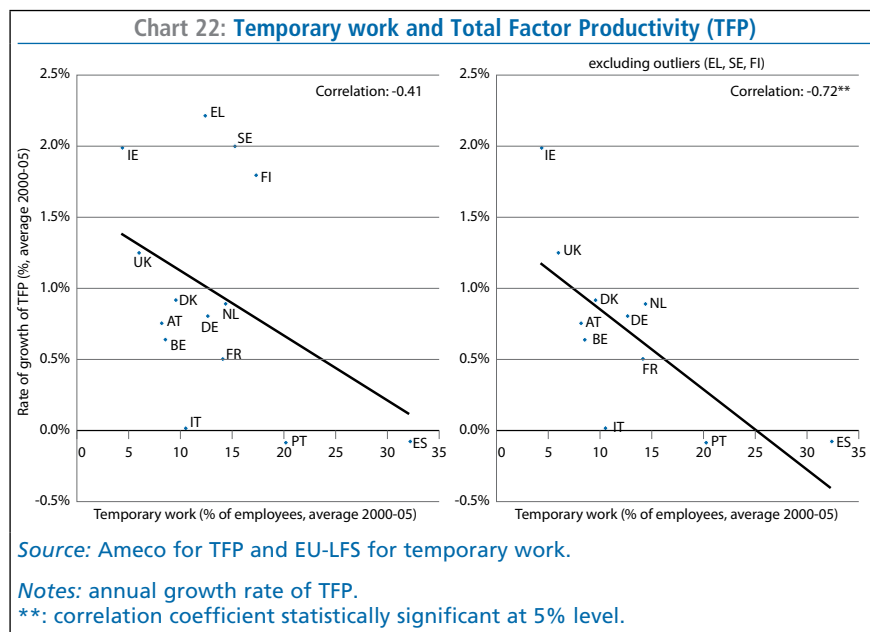
The greater turnover of temporary workers, coupled with low conversion rates into permanent contracts, reduces incentives to invest in (job-specific) human capital (Dolado et al., 2002; Bentolila et al., 2008). Guell and Petrongolo (2003) argue that the negative impact of temporary work on vocational training also depends on whether temporary contracts are mainly used to lower wage costs or as a screening device for entry-level jobs, with the effect being greater in the former case.

Dolado et al. (2002) and Dolado and Stucchi (2008) report evidence of a negative impact of a large use of temporary work on labour productivity growth, mainly via low participation rates in vocational training. Since the mid-1990s, Spain has been registering, together with a very high share of temporary work, a significant slowdown in labour

productivity growth⁽³²⁾ which cannot simply be explained by the rapid growth in unskilled/low productivity labour. In fact, in the same period a sharp decline in the growth rate of Total Factor Productivity (TFP) has also occurred⁽³³⁾. Using Spanish data for the period 1991 to 2005, Dolado and Stucchi (2008) found that firms with a higher share of temporary workers are less productive, while those with high conversion rates of temporary contracts into permanent ones are more productive (for a given share of temporary work). The former effect can be explained by the lower investment in training of temporary workers, whereas the latter should be attributed to the lower in-work effort of workers, reflecting their perceived low probability of becoming permanent workers. The OECD (2010) report also found no evidence of, or a negative, cross-country correlation between the share of temporary work and total factor productivity (TFP).

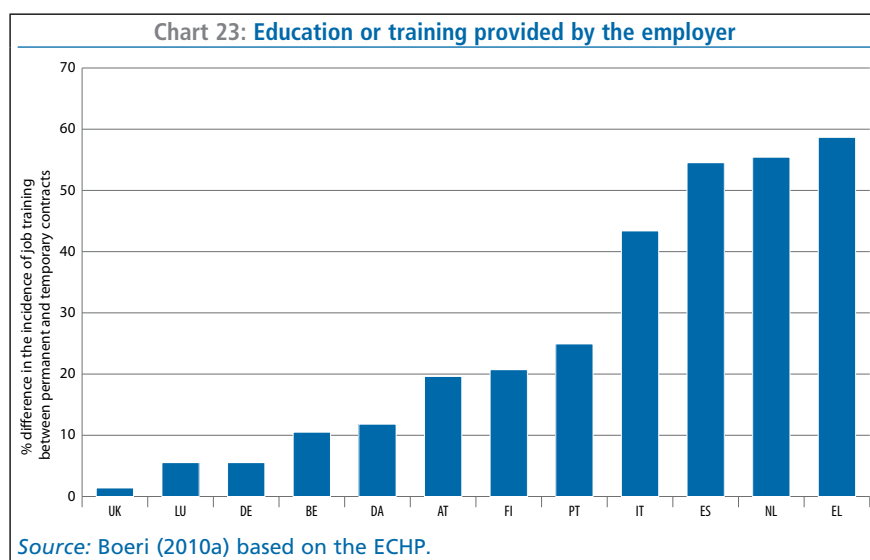
(32) The average annual growth rate of GDP per hour worked fell from 2.9% in the 1970-1994 period to 0.3% in 1995-2005 period.

(33) The average annual growth rate of TFP has decreased from 0.6% in the 1980-1994 period to -0.8% in 1995-2005 period.



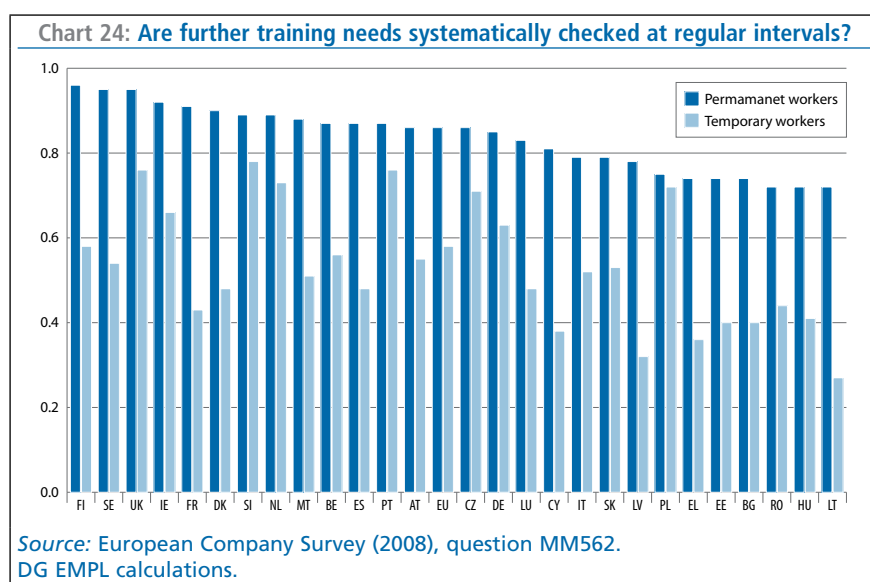
Using a sample of Italian firms, Boeri and Garibaldi (2007) found that the share of temporary workers has a large negative impact on firm-level productivity growth, after controlling for a number of firm and worker characteristics. These authors argue that rising employment levels, in the aftermath of two-tier EPL reforms that facilitate the use of temporary work, led to falling labour productivity via decreasing marginal returns for labour. They also found that countries introducing flexibility at the margin have subsequently experienced a rise in the employment intensity of growth – the counter-part of declining productivity.

Chart 22 shows the cross-country correlation between the use of temporary contracts and the growth rate of TFP in the EU.



The information, based on ECHP data, suggests that firms provide considerably less education or training opportunities to temporary workers than they do to permanent workers (Chart 23).

Data from the European Company Survey (2008) also suggest that firms regularly pay less attention to the training needs of temporary workers compared to those of their permanent counterparts – a gap of about 30% in the EU - which is likely to be reflected in fewer training opportunities financed by enterprises (Chart 24).



Likewise, the Adult Education Survey⁽³⁴⁾ (AES) carried out in 2007 also suggests that participation rates in Continuous Vocational Training (CVT) - using non-formal education as a proxy indicator - are higher for permanent workers than for temporary workers in a majority of EU Member States (Chart 25).

(34) The Adult Education Surveys (AES) are part of the EU Statistics on lifelong learning. The surveys cover participation in education and lifelong learning activities (formal, non-formal and informal learning). All definitions apply to all persons aged 25-64. The AES are planned to be conducted every five years. The total sample size for the first 24 countries participating in the 2007 wave is about 170 000.

On the other hand, figures for participation rates in formal (as opposed to non-formal) education suggest the presence of a 'catching-up' response, because take-up rates are higher for temporary than permanent workers (Chart 26). Mroz and Savage (2006) argue that after a spell in unemployment, young people will seek to increase their investment in human capital as a 'catch-up' response to the unemployment spell.⁽³⁵⁾ This result is corroborated by the analysis of the determinants of formal education in box 3 using LFS micro data, which suggests that temporary workers, being in a disadvantaged position in terms of pay, career prospects and job stability, do try to improve their lot by taking part in further formal education.

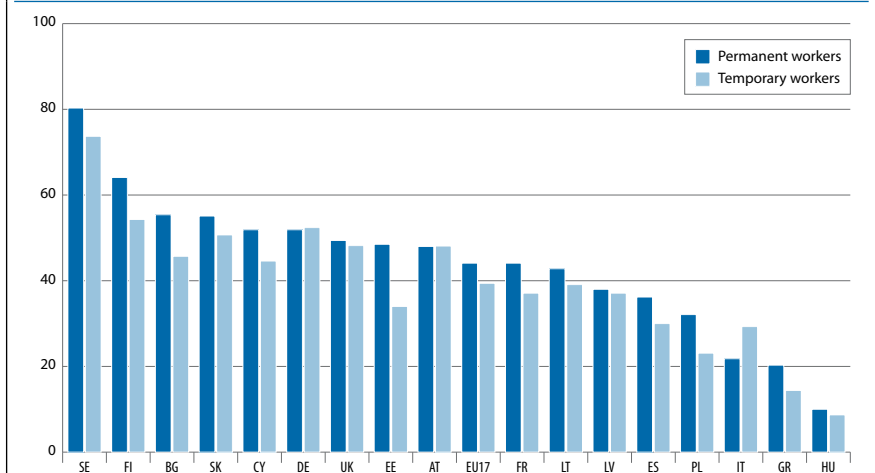
The remaining part of this section uses LFS anonymised microdata for the years 2006 and 2007 to evaluate the determinants of participation in 'formal'⁽³⁶⁾ education. It should be highlighted that 'formal' education is not necessarily provided (i.e. free or subsidised) by firms, therefore there is no ex-ante presumption that participation rates for temporary workers will be lower than for permanent ones. Furthermore, the analysis of its determinants is carried out from the perspective of employees.

An econometric model is used to identify individual and firm characteristics that influence the likelihood/ odds of employed people participating in further 'formal' education (see box 3). Overall, results suggest the existence of a 'catching-up' effect: a temporary worker with a lower or median level of education is more likely to take part in further

(35) Mroz and Savage (2006) find that recent unemployment has a significant positive effect on whether young people take part in training today. However, despite this catch-up response and an absence of persistent unemployment effects, they find evidence of long-lived 'blemishes' from unemployment.

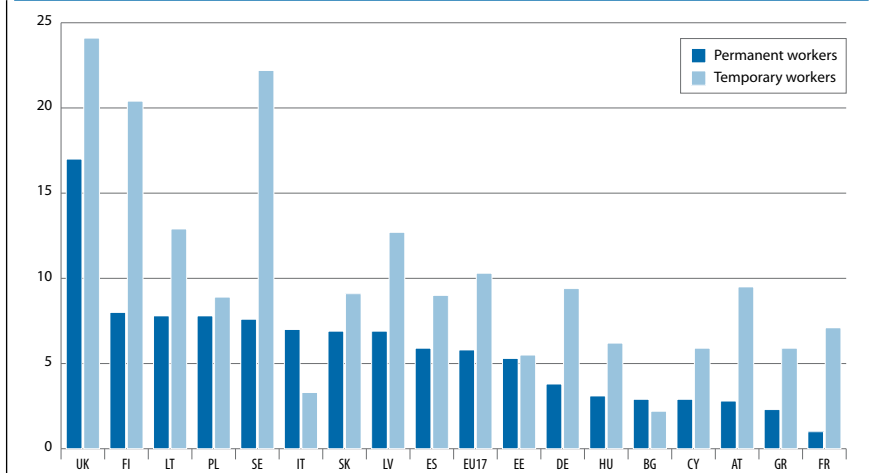
(36) Student or apprentice in regular education during the last 4 weeks (LFS's EDUCSTAT variable). The same exercise was carried out for 'informal' education (COURATT), but results were not found to be sufficiently conclusive to be worth reporting.

Chart 25: Participation rate in non-formal education (broadly equivalent to CVT) of individuals aged 25-64 in 2007



Source: Adult Education Survey (2007). Ranking of countries based on descending order of participation of permanent workers EU17 is a non-weighted average.

Chart 26: Participation rate in formal education of individuals aged 25-64 in 2007



Source: Adult Education Survey (2007). Ranking of countries based on descending order of participation of permanent workers EU17 is a non-weighted average.

education than a permanent worker and/or one with tertiary education. Work-life reconciliation aspects also seem to play a role, as single workers and part-time workers are more likely to participate in further education than full-time or married ones.

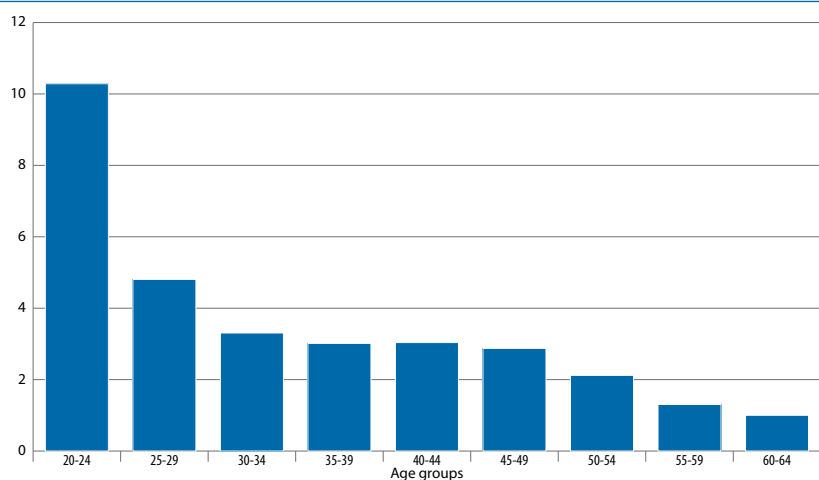
According to the estimated odds-ratio⁽³⁷⁾, male workers have a 23%

(37) The odds ratio is the ratio of odds of an event occurring in one group (e.g. men) to the odds of it occurring in another group (e.g. women). An odds ratio greater than 1 indicates that the event is more likely to occur in the first group. An odds ratio less than 1 indicates that the event is less likely to occur in the first group.

greater likelihood than female workers of participating in further 'formal' education. Taking part in further 'formal' education shows a very marked age profile (Chart 27), reflecting the well-established fact that returns to education decrease strongly with age (Cahuc and Zylberberg, 2005). The evidence shows that young adults (aged 20-24) are ten times more likely to participate in further 'formal' education than workers aged 60-64⁽³⁸⁾, but that participation in further education declines rapidly with age as workers aged 35-44 and 50-54 are only respectively three and

(38) The reference category.

Chart 27: Odds-ratio for taking part in further 'formal' education
- reference category 60-64 -



Source: LFS microdata; DG EMPL calculations.

two times more likely to do so than those aged 60-64. Firm size also plays a significant role in that workers in small or medium sized firms are less likely to take part in further education than workers in larger firms.⁽³⁹⁾

Overall, the main conclusion of this section is that, on the one hand, temporary workers tend to have reduced access to on-the-job training than permanent ones while, on the other hand, they are more likely to participate in further 'formal' education (i.e. distinct from firm-provided training) than permanent workers, suggesting the existence of a catching-up effect, i.e. temporary workers attempting to overcome their disadvantaged economic situation.

Box 3: Determinants of participation in further 'formal' education using LFS micro data

A logistic regression is estimated to identify the determinants of participation in 'formal' education from the perspective of employed people. Explanatory variables include both individual and firm characteristics. The number of observations totals close to 2.3 million, covering the years 2006 and 2007. Twenty five EU Member States are covered (EU27 minus MT and IE). Regressions are estimated weighting observations by the weighting variable provided in the dataset (COEFF). The odds ratio of participating in 'formal' education is modelled as:

$$\ln \left[\frac{P(y_{ijt} = 1)}{P(y_{ijt} = 0)} \right] = b_0 + b_1 X_t^1 + b_2 X_j^2 + \sum_{p=3}^{13} b_p X_{ijt}^p$$

where

i : individual

j : country

t : year

P : probability

y_{ijt} : {0: non-participation; 1: participation}

X^1 : Year

X^2 : Country

X^3 : Experience (0-1, 2-3, 4-5, 6-10, 11-15, 16-20, 21-25, 26+) proxied by the number of years since highest education level was completed

X^4 : Gender

X^5 : Age groups (20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64)

X^6 : Marital status (1: widowed, divorced or separated; 2: single; 3: married)

X^7 : Work status (1: self-employment; 2: permanent work; 3: temporary work)

X^8 : Full/part-time

X^9 : Education level (1: primary; 2: secondary; 3: tertiary)

X^{10} : Size of the firm (number of people working in the local unit): (1-10; 11-19; 20-49; 50+)

X^{11} : Supervisory role (1: Yes; 2: No)

X^{12} : Economic activities (NACE at 1 digit)

X^{13} : Occupations (ISCO at 1 digit)

(39) With more than 50 workers.

Table 8: Determinants of 'formal' education (EDUCSTAT)

		Var.	Odds Ratio	S.E.	Wald	DF	Sig.	
Men	a)	x4	1.228	0.022	88	1	.000	***
Work status	b)	x7						***
Self-employment			0.398	0.077	145	1	.000	***
Permanent work			0.395	0.024	1559	1	.000	***
Full-time	c)	x8	0.364	0.024	1785	1	.000	***
Age group	d)	x5						
20-24			10.286	0.141	271	1	.000	***
25-29			4.806	0.140	125	1	.000	***
30-34			3.306	0.140	73	1	.000	***
35-39			3.014	0.140	62	1	.000	***
40-44			3.038	0.139	63	1	.000	***
45-49			2.874	0.139	58	1	.000	***
50-54			2.118	0.142	28	1	.000	***
55-59			1.304	0.153	3	1	.083	*
Marital status	e)	x6						
Widowed, divorced or separated			1.390	0.045	55	1	.000	***
Single			1.608	0.026	324	1	.000	***
Education	f)	x9						
Primary			1.464	0.043	79	1	.000	***
Secondary			1.429	0.027	179	1	.000	***
Years since highest education level was completed	g)	x3						
0-1			5.862	0.060	867	1	.000	***
2-3			6.077	0.058	952	1	.000	***
4-5			4.821	0.059	711	1	.000	***
6-10			3.255	0.056	440	1	.000	***
11-15			2.373	0.059	215	1	.000	***
16-20			1.814	0.061	94	1	.000	***
21-25			1.499	0.061	43	1	.000	***
Size of the firm (number of people working at the local unit)	h)	x10						
1-10			0.809	0.027	60	1	.000	***
11-19			0.894	0.032	12	1	.000	***
20-49			0.934	0.027	6	1	.011	**
Supervisory role	i)	x11						
Yes			1.131	0.027	20	1	.000	***
Economic activities (NACE at 1 digit)	j)	x12						
A - agriculture, hunting and forestry			0.296	0.334	13	1	.000	***
B - fishing			0.244	0.750	4	1	.060	*
C - mining and quarrying			0.452	0.358	5	1	.027	**
D - manufacturing			0.374	0.315	10	1	.002	***
E - electricity, gas and water supply			0.520	0.331	4	1	.048	**
F - construction			0.337	0.318	12	1	.001	***
G - wholesale and retail trade			0.410	0.315	8	1	.005	***
H - hotels and restaurants			0.548	0.317	4	1	.057	*
I - transport, storage and communication			0.405	0.317	8	1	.004	***
J - financial intermediation			0.489	0.317	5	1	.024	**
K - real estate, renting and business activities			0.495	0.315	5	1	.026	**
L - public administration and defence			0.598	0.316	3	1	.103	
M - education			0.744	0.315	1	1	.348	
N - health and social work			0.562	0.315	3	1	.067	*
O - other community, social and personal service activities			0.497	0.317	5	1	.027	**
P - private households with employed persons			0.535	0.335	3	1	.062	*
Occupations (ISCO at 1 digit)	k)	x13						
ISCO1 - legislators, senior officials and managers			2.515	0.061	231	1	.000	***
ISCO2 - professionals			2.926	0.052	427	1	.000	***
ISCO3 - technicians and associate professionals			2.800	0.048	465	1	.000	***
ISCO4 - clerks			2.376	0.049	314	1	.000	***
ISCO5 - service workers and shop and market sales workers			1.958	0.048	199	1	.000	***
ISCO6 - skilled agricultural and fishery workers			1.717	0.131	17	1	.000	***
ISCO7 - craft and related trades workers			1.320	0.056	25	1	.000	***
ISCO8 - plant and machine operators and assemblers			0.920	0.067	2	1	.209	
Nagelkerke R Square	.305							

Reference category: a) Women; b) Temporary work; c) Part-time; d) Age group 60-64; e) Married; f) Tertiary education; g) 26+; h) 50+; i) No; j) Q - extra-territorial organisations and bodies; k) ISCO9: elementary occupations.

*, **, ***: significant at 10%, 5% and 1% respectively.

7. SEGMENTATION AND LABOUR MARKET TRANSITIONS

7.1. Segmentation increases job separations

Two-tier EPL reforms that facilitate the use of temporary contracts tend to increase both the number of recruitments and the number of separations or dismissals, since firms have limited incentives to convert temporary contracts into permanent ones given the much higher firing costs of the latter.

Guell and Petrongolo (2003) found that, between 1987 and 2002, the conversion rate of temporary into permanent jobs for Spanish workers in the manufacturing sector was on average only around 10%, implying that a large proportion of temporary workers undergo recurrent unemployment spells between temporary contracts.

Blanchard and Landier (2002) argue that two-tier EPL reforms that ease regulations on the use of temporary contracts can actually end up increasing aggregate unemployment and reducing workers' welfare. Although the greater use of temporary contracts may foster hiring, particularly for young and/or inexperienced workers, it can also reduce conversion rates of temporary into permanent jobs, even when workers and jobs seem well matched, as firms may prefer to 'churn' (or rotate) temporary workers instead of bearing the potential costs of having to fire permanent ones. Thus the easing of temporary contracts in France since the early 1980s, which affected in particular young workers, is seen to have increased the rate of job turnover with no substantial reduction in unemployment duration, leading to an overall negative impact on welfare.

Using an extension of Mortensen and Pissarides' matching model that considers both temporary and permanent contracts, Cahuc and Postel-Vinay (2001) find that temporary contracts foster both job creation and destruction, but the latter effect dominates when firing costs of permanent contracts are high. In equilibrium, such segmentation increases the aggregate unemployment rate and lowers welfare. As in Blanchard and Landier (2002), the key point is that the regulatory asymmetry in EPL creates a strong disincentive for firms to transform temporary contracts into permanent ones.

In an efficiency wage setting⁽⁴⁰⁾, Guell (2000) argued that the liberalisation of temporary contracts may trigger a substitution of temporary workers for permanent ones, because wages can be set lower for the former as firms can use the option of converting a temporary contract into a permanent one as an incentive mechanism to elicit workers' effort on the job. Using micro data for nine European countries, Kahn (2010) found evidence of substitution of temporary for permanent workers in countries that have eased regulations on the use of temporary contracts, with no effect on aggregate employment levels. In fact, the introduction of temporary contracts does not seem to have changed aggregate employment, only its composition. It has to be underlined, however, that such substitution occurs gradually over time and as a result of the natural attrition of permanent workers, e.g. through retirement or voluntary quits.

Saint-Paul (2000) compared labour market flows in Spain, France and the US, finding that Spain had a slightly higher job finding rate and a substantially higher job loss rate than France (and similar to that in the US). The latter accounts for the higher unemployment rate in Spain, suggesting that the liberalisation of temporary contracts has pushed Spain towards

(40) Namely one where wage rates are deliberately set or maintained above labour marginal productivity in order to deter the employees concerned from 'shirking' on the job i.e. not giving of their best.

the 'worst of both worlds', namely a job creation rate close to a rigid labour market, and a job destruction rate typical of a flexible one.

7.2. Segmentation, labour flows and long-term unemployment

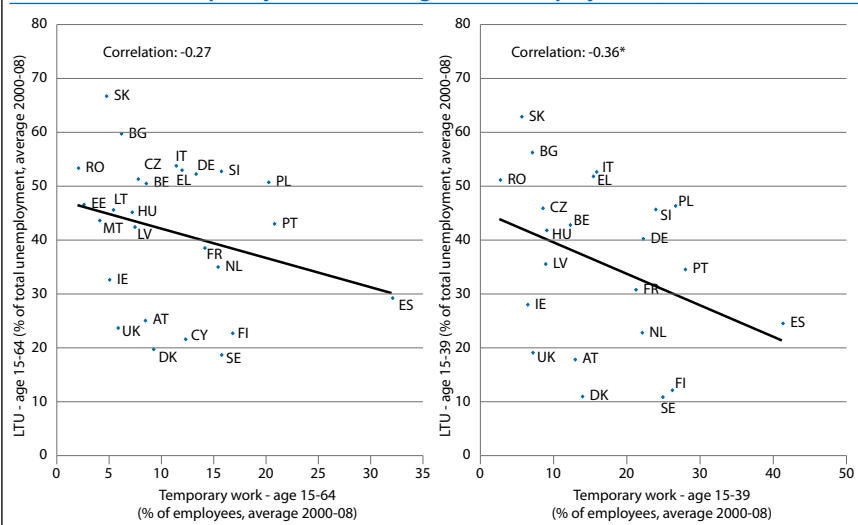
As regards labour market flows, a high incidence of temporary contracts has a large positive impact on the magnitude of labour market dynamics. Using a sample of large Spanish firms in the period 1993-1994, Garcia-Serrano (1998) found that the size of both job⁽⁴¹⁾ and labour turnover rates varied strongly by type of employment contract, being much higher for temporary work. The analysis suggests that a rise of 1% in the share of temporary employment increases flows from employment to unemployment by 0.26, flows from unemployment to employment by 0.16, and flows between jobs by 0.34. Another interesting difference emerges, namely that temporary contracts are much more likely than permanent ones to be associated with job-to-job flows (employment rotation) than with the creation or destruction of jobs.

As regards the impact of temporary contracts on the incidence of long-term unemployment (LTU) and the duration of unemployment, Bentolila et al. (2008) found that during an economic expansion phase, LTU tended to decrease in Spain, while in slow-down/recession periods there were episodes of LTU increases, despite a persistently high share of temporary employment. Following the labour market reforms introduced in Spain in the late 1990s-early 2000s aimed at reducing the EPL gap, LTU decreased (Dolado et al., 2002).

Guell (2006) found that the 1984 liberalisation of temporary contracts in Spain increased the duration dependence of unemployment – in other words, the probability of

(41) See footnote 5.

Chart 28: Temporary work and Long-Term Unemployment (LTU) in the EU



Source: Eurostat. DG EMPL calculations.

Notes: Long-term unemployed covers 12 months and more in unemployment.
 *: correlation coefficient statistically significant at 10%.

exiting unemployment declines with the duration of unemployment. The intuitive explanation is that temporary workers go through recurrent short unemployment spells given the low conversion rates of temporary contracts into permanent ones and so systematically push the long-term unemployed further back along the hiring 'queue', decreasing their probability of exiting unemployment.

Chart 28 suggests the existence of a negative correlation between the incidence of temporary work and the share of long-term unemployed in EU Member States. However, such evidence is quite weak as the correlation is statistically significant only for workers in the age bracket 15 to 39.

7.3. Segmentation and transitions from temporary to permanent employment

The low conversion rates of temporary into permanent contracts found in the empirical literature have led some authors (e.g. Guell and Petrongolo, 2007) to investigate other possible roles for temporary contracts as:

1. a device for firms to screen workers' ability/productivity,
2. a buffer to allow firms to adjust their actual employment to their optimal demand levels.

The screening role of temporary contracts results from the existence of asymmetric or incomplete information in the sense that firms and workers need time to assess the productivity/suitability of a particular job match before committing themselves to a more lasting association.

Alternatively, for firms facing adverse (and temporary) shocks, temporary workers may provide a buffer to adjust employment levels, while permitting them to keep stable levels of permanent workers, thereby cutting adjustment costs both in terms of severance payments and losses in firm-specific human capital.

A prevalence of the latter type of behaviour over the former would be an indication of a truly segmented labour market, i.e. one in which temporary jobs are just a cheaper and more flexible alternative to permanent work.

Using Spanish data for the period 1987-2002, Guell and Petrongolo

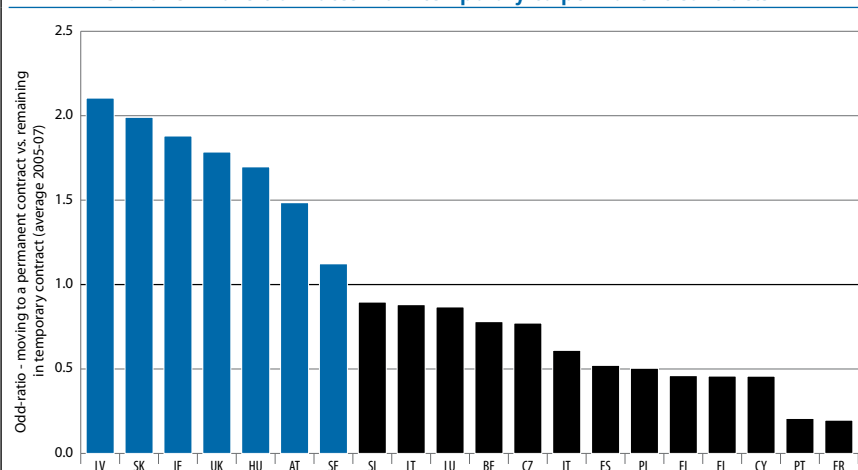
(2003) assessed the use of temporary contracts, their determinants and conversion rates into permanent contracts. They found 'spikes' in conversion rates after one year, and after three years, of job tenure, where the latter coincides with the maximum legal duration of temporary contracts in Spain. Findings suggest a double use for temporary contracts: as a screening device that leads to conversions into permanent jobs after one year, but also as a 'forced' conversion mechanism at the maximum legal duration of temporary contracts, with the latter being used more frequently for low-skilled workers.

Booth et al. (2002) have looked at the use of temporary contracts in the UK between 1991 and 1997, i.e. a labour market that, unlike the Spanish one, is less strictly regulated with regard to permanent contracts. They found evidence that temporary contracts represent effective stepping stones to permanent jobs and that the wage penalty associated with their use at the start of a career tends to be transitory, i.e. temporary workers tend to catch up with permanent workers in terms of lifelong earnings. Evidence for Sweden (Larsson et al., 2005) is also positive overall, suggesting that having a (long-duration) temporary contract reduces the risk of future unemployment, and raises the probability of being offered a permanent one at the same establishment 2 to 2½ years after the start of the temporary one.

An indication of the ease with which it is possible to move from temporary to permanent work can be obtained by calculating transition rates⁽⁴²⁾. Chart 29 plots the (odds)-ratio between the share of temporary workers moving to a permanent job in one year relative to the share of those remaining in a temporary job. A value higher than one indicates a greater chance of moving to a more stable job in one year than remaining in a temporary job, suggesting a stepping stone role for temporary work.

(42) I.e. the percentage of workers in a temporary job in year *t* moving to a permanent job in year *t+1*.

Chart 29: Transition rates from temporary to permanent contracts

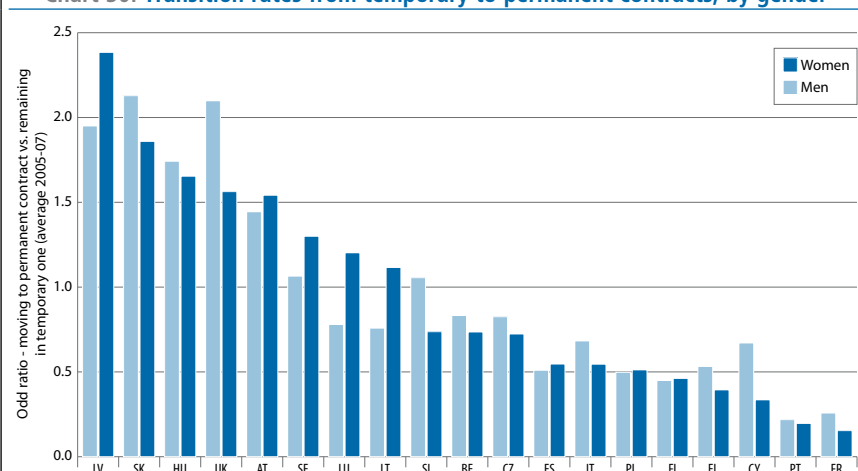


Source: EU SILC, using the longitudinal component of the anonymised microdata set. DG EMPL calculations.

Notes: 2006-2007 averages for CY, CZ, HU, LT, LV, PL, SE, SI, SK and UK; 2004-2007 average for LU; 2005-2006 average for IE.

Odd-ratio are calculated as the ratio of temporary-to-permanent to temporary-to-temporary transitions.

Chart 30: Transition rates from temporary to permanent contracts, by gender



Source: DG EMPL calculations based on the EU SILC anonymised microdata set.

Notes: 2006-2007 averages for CY, CZ, HU, LT, LV, PL, SE, SI, SK and UK; 2005-2006 average for IE.

to a permanent contract than women, with the gap being larger in Greece, Italy, Cyprus, Slovakia, Slovenia and the UK. The opposite is found in Latvia, Lithuania, Luxembourg, Austria and Sweden.

- As regards age groups (Chart 31), in a majority of Member States⁽⁴⁴⁾ younger workers (in the 15-24 and/or 25-34 age brackets) have better chances of moving to a permanent contract, with such gaps being particularly marked in Ireland, Latvia, Lithuania, Hungary and the UK. However, the opposite occurs in Spain, Italy, Slovenia and Finland, where the ratio is highest for older workers (55 to 64), and Luxembourg, Portugal, Slovakia and Sweden, where it is highest for workers in the 35-54 age group.

- As regards education (Chart 32), workers with primary-level education have the lowest chance of moving rapidly to a permanent contract in a majority of Member States⁽⁴⁵⁾. However, the relationship between education and the odds-ratio does not seem to be monotonic⁽⁴⁶⁾, as in about half of the Member States considered the odds are higher for workers with secondary education than they are for those with a college degree (particularly in Belgium, Latvia, Lithuania, Hungary and Austria). However, people with tertiary education have the best transition chances in seven countries (Ireland, France, Poland, Portugal, Slovakia, Slovenia and Finland).

The results suggest that those Member States which have pursued two-tier EPL reforms tend to have odd-ratios lower than one (Belgium, Greece, Spain, France, Italy and Portugal, together with some new Member States such as the Czech Republic, Cyprus, Poland and Slovenia), suggesting that temporary workers may be 'trapped'. Conversely, in Ireland, Latvia, Slovakia and the UK, temporary workers are 1.5 to 2 times more likely to move to a permanent contract in one year than they are to remain in a temporary one.

Charts 30 to 32 break down the temporary-to-permanent transitions by gender, age groups, and education level. The cross-country patterns are not as clear cut as in the overall indicator, suggesting a degree of heterogeneity with respect to different variables.

- As regards gender (Chart 30), in a majority of Member States⁽⁴³⁾ men stand a better chance of moving

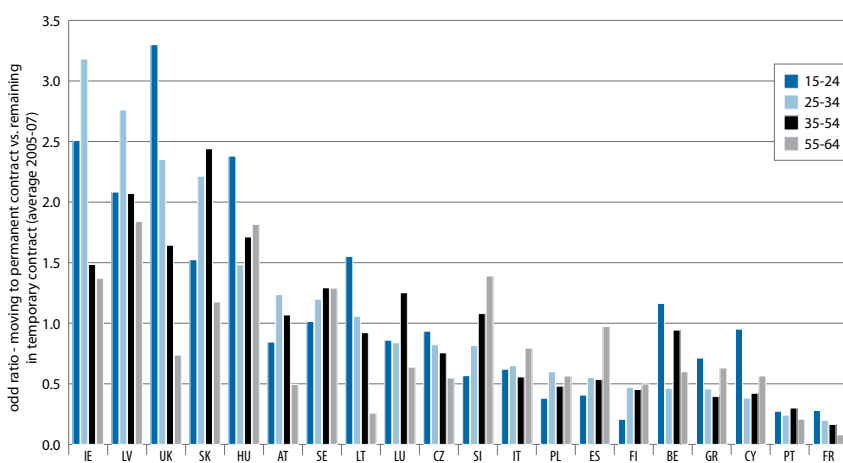
(43) I.e. 11 out of 19 for which data are available.

(44) 12 out of 20.

(45) 11 out of 19.

(46) I.e. the odd-ratio increasing/decreasing with the level of education.

Chart 31: Transition rates from temporary to permanent contracts, by age group



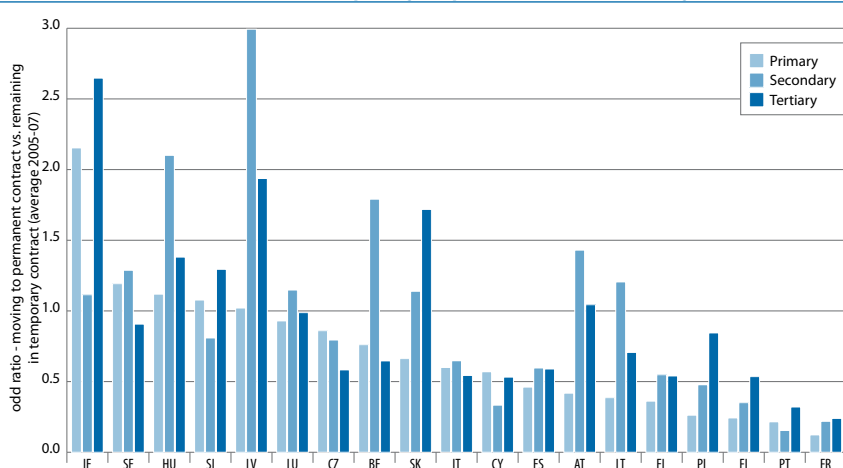
Source: DG EMPL calculations based on the anonymised microdata set of SILC.

Notes: 2006-2007 averages for AT, BE, CY, CZ, FI, HU, LT, LV, PL, SE, SI, SK and UK; average of years 2005 and 2007 for PT, 2006 only for IE.

- Policy/institutional variables include whether the individual is receiving unemployment benefits as a proxy for the replacement rate⁽⁴⁷⁾
- Aggregate (i.e. country specific) variables include the net replacement rate, employment protection, total and long term unemployment rates.

All regressions include country, year and degree of urbanisation dummies, and are estimated for individuals aged between 15 and 64. All regressions are estimated weighting observations by the personal base weight variable.⁽⁴⁸⁾

Chart 32: Transition rates from temporary to permanent contracts, by education level



Source: DG EMPL calculations based on the anonymised microdata set of SILC.

Notes: 2006-2007 averages for AT, CY, CZ, FI, HU, LT, LV, PL, SE, SI and SK; 2005 only for IE and 2006 only for SK.

Table 9 shows the effects of the variables listed on the probability of moving from joblessness to employment. In overall qualitative terms, the results are similar to those obtained using the ECHP (European Commission, 2004). The odds-ratio quantifies the changes in the probability of moving from non-employment to employment relative to a reference category.⁽⁴⁹⁾ Thus men have a 44% greater chance than women of moving into employment after one year (45% after two years). This effect is highly significant from a statistical point of view, which is indicated in the Table with three asterisks.

These types of transitions show a very marked age profile. Individuals aged 25-34 are nearly nine times more likely to move into employment than older workers (aged 55-64) after one year of joblessness.

7.4. Determinants of labour market and pay transitions

This section examines the determinants of some labour market and pay transitions, namely transitions from non-employment to employment, transitions from a temporary to a permanent job, and transitions from low pay to higher pay. Both one-year and two-year transitions are calculated using microdata from the anonymised EU SILC set, together with some aggregate labour market variables.

Logistic regressions are estimated to determine individual, family characteristics and some institutional/policy settings/variables that influence the likelihood/odds-ratio of a particular transition:

- Individual characteristics considered include: gender, age group, highest level of education attained, number of years spent in paid work, and occupation.
- Family characteristics include: marital status, presence of children under 13 in the household, and presence in the household of other employed individuals.

(47) The ratio of individual unemployment benefits (PY090) to the income median calculated by country and year; income is calculated as the sum of 'employee cash income' (PY010), 'non-cash employee income' (PY020), and 'cash benefits or losses from self-employment' (PY050).

(48) PB050. Weighting seems to have uniformly inflated the significance test of coefficients (Wald test).

(49) Marginal effects are computed for continuous variables, such as the incidence of long term unemployment, using average sample values. In this case any deviations from zero must be interpreted as a positive/negative effect.

Table 9: Determinants of transitions from 'Non-employment' to 'Employment' - EU a) - pooled data 2004-2007

		1-year transitions						2-years transitions					
		Odds Ratio	S.E.	Wald	DF	Sig.		Odds Ratio	S.E.	Wald	DF	Sig.	
Men	a)	1.439	0.000	2.E+06	1	.000	***	1.453	0.000	1.E+06	1	.000	***
Age group	b)												
15-24		4.163	0.001	5.E+06	1	.000	***	5.597	0.001	4.E+06	1	.000	***
25-34		8.916	0.001	1.E+07	1	.000	***	13.438	0.001	1.E+07	1	.000	***
35-54		5.685	0.001	1.E+07	1	.000	***	7.617	0.001	8.E+06	1	.000	***
Marital Status	c)												
Single		1.046	0.000	1.E+04	1	.000	***	1.053	0.000	1.E+04	1	.000	***
Education	d)												
Primary		0.378	0.000	6.E+06	1	.000	***	0.367	0.000	4.E+06	1	.000	***
Secondary		0.575	0.000	2.E+06	1	.000	***	0.548	0.000	2.E+06	1	.000	***
Degree of Urbanisation	e)												
Densely populated area		0.929	0.000	4.E+04	1	.000	***	0.816	0.000	2.E+05	1	.000	***
Intermediate area		0.959	0.000	1.E+04	1	.000	***	0.866	0.000	9.E+04	1	.000	***
Other employed individuals in the household	f)												
No		0.786	0.000	5.E+05	1	.000	***	0.688	0.000	8.E+05	1	.000	***
Children younger than 13 in the household	g)												
No		0.925	0.000	6.E+04	1	.000	***	0.936	0.000	3.E+04	1	.000	***
Receiving or not Unemployment Benefits (not in employment 1 year ago)	h)												
No		0.314	0.000	6.E+06	1	.000	***	0.510	0.001	1.E+06	1	.000	***
Receiving or not Unemployment Benefits (not in employment 2 years ago)	i)												
No		-----	-----	-----	-----	-----	-----	0.384	0.001	2.E+06	1	.000	***
Proxy for the replacement rate	j)	-0.020#	0.001	1.E+04	1	.000	***	-0.496#	0.002	2.E+05	1	.000	***
Incidence of long term unemployment (long-term total unemployment over total unemployment)	k)	-0.110#	0.007	3.E+03	1	.000	***	-0.107#	0.011	2.E+02	1	.000	***
Unweighted number of cases		120329						50758					
Pseudo R2: Nagelkerke R Square		0.166						0.226					

a) 22 EU Member States: AT, BE, CY, CZ, DK, EE, ES, FI, FR, EL, HU, IE, IT, LT, LU, LV, PL, PT, SE, SI, SK, UK.

Reference category: a) Women; b) Age group 55-64; c) Married; d) Tertiary education; e) Thinly populated area; f) Yes; g) Yes; h) Yes; i) Yes; j) Continuous; k) Continuous. # Marginal effects computed at the average sample value. ***: significant at 1%.

The level of qualification also has a strong impact on the likelihood of finding a job, as not holding a tertiary degree incurs dramatic penalties in terms of reductions of 62% and 42% in the respective probability of primary and secondary educated individuals finding a job after one year.

Household characteristics also play a significant role. Single individuals are about 5% more likely to find a job after one or two years out of work than married people. Being in a jobless household reduces one's chances of finding work. After two years of joblessness, an individual with no other employed family member is 31% less likely to find a job than someone with an employed family member. Parents with young children have higher transition rates into employment.

The degree of urbanisation plays also a significant role. Individuals living in densely populated areas have more difficulty finding a job than those living in thinly populated areas particularly after two years of joblessness (a reduction of 18% in the probability of moving into employment). A rise in the incidence of long-term unemployment also reduces the probability of finding a job.

An interesting result is that the (proxy for the) replacement rate of unemployment benefits suggests that the duration of unemployment benefits might be detrimental to finding employment, broadly following economic theory (Cahuc and Zylberberg, 2005), with the marginal effect of the replacement rate on the odds-ratio being much higher for two-year than for one-year transitions.

Table 10 presents the analysis undertaken concerning *transitions from temporary to permanent employment*. It suggests the following:

1. Being a man and belonging to a younger age group have a significant positive effect on moving to more stable employment.
2. Not having an academic degree significantly reduces the likelihood of getting a permanent contract. An individual with primary (secondary) education is only about ½ (2/3) as likely as a tertiary educated individual to find a permanent job after two years of holding a temporary one.
3. Experience in the labour market (i.e. number of years in paid work) also helps moving into a permanent job.

Table 10: Determinants of transitions from Temporary to Permanent work - EU a) - pooled data 2004-2007

		1-year transitions						2-years transitions					
		Odds Ratio	S.E.	Wald	DF	Sig.		Odds Ratio	S.E.	Wald	DF	Sig.	
Men	a)	1.316	0.001	2.E+05	1	.000	***	1.505	0.001	3.E+05	1	.000	***
Age group	b)												
15-24		1.800	0.002	1.E+05	1	.000	***	1.845	0.002	7.E+04	1	.000	***
25-34		1.591	0.002	8.E+04	1	.000	***	1.724	0.002	7.E+04	1	.000	***
35-54		1.432	0.001	7.E+04	1	.000	***	1.462	0.002	5.E+04	1	.000	***
Marital Status	c)												
Single		1.051	0.001	6.E+03	1	.000	***	1.064	0.001	6.E+03	1	.000	***
Education	d)												
Primary		0.591	0.001	4.E+05	1	.000	***	0.491	0.001	4.E+05	1	.000	***
Secondary		0.779	0.001	1.E+05	1	.000	***	0.666	0.001	2.E+05	1	.000	***
Degree of Urbanisation	e)												
Densely populated area		1.101	0.001	2.E+04	1	.000	***	1.105	0.001	1.E+04	1	.000	***
Intermediate area		1.081	0.001	1.E+04	1	.000	***	1.158	0.001	3.E+04	1	.000	***
Other employed individuals in the household	f)												
No		0.970	0.001	3.E+03	1	.000	***	0.897	0.001	2.E+04	1	.000	***
Children younger than 13 in the household	g)												
No		0.941	0.001	1.E+04	1	.000	***	0.933	0.001	9.E+03	1	.000	***
Occupation at the beginning of the period (ISCO at 1 digit)	h)												
ISCO1 - legislators, senior officials and managers		0.968	0.002	3.E+02	1	.000	***	0.744	0.002	2.E+04	1	.000	***
ISCO2 - professionals		0.899	0.001	9.E+03	1	.000	***	0.795	0.001	2.E+04	1	.000	***
ISCO3 - technicians and associate professionals		1.165	0.001	2.E+04	1	.000	***	1.204	0.001	2.E+04	1	.000	***
ISCO4 - clerks		1.552	0.001	2.E+05	1	.000	***	1.450	0.001	8.E+04	1	.000	***
ISCO5 - service workers and shop and market sales workers		1.571	0.001	3.E+05	1	.000	***	1.348	0.001	7.E+04	1	.000	***
ISCO6 - skilled agricultural and fishery workers		0.696	0.002	3.E+04	1	.000	***	0.605	0.003	4.E+04	1	.000	***
ISCO7 - craft and related trades workers		1.261	0.001	7.E+04	1	.000	***	1.033	0.001	8.E+02	1	.000	***
ISCO8 - plant and machine operators and assemblers		1.635	0.001	3.E+05	1	.000	***	1.388	0.001	6.E+04	1	.000	***
Experience (number of years spent in paid work)	i)	1.577#	0.000	8.E+04	1	.000	***	0.094#	0.000	6.E+04	1	.000	***
Incidence of long term unemployment (long-term total unemployment over total unemployment)	j)	-206.8#	0.015	1.E+04	1	.000	***	-5.064#	0.020	1.E+03	1	.000	***
Segmentation	k)	-114.5#	0.010	8.E+03	1	.000	***	-----	-----	-----	-----	-----	-----
Unweighted number of cases		15132						7074					
Pseudo R2: Nagelkerke R Square		0.124						0.132					

a) 1-year transition: 14 EU Member States (AT, BE, CZ, ES, FI, FR, EL, HU, IE, IT, PL, PT, SE, SK); 2-years transition 19 Member States (AT, BE, CY, CZ, EE, ES, FI, FR, GR, HU, IE, IT, LT, LU, LV, PL, PT, SE, SK).

Reference category: a) Women; b) Age group 55-64; c) Married; d) Tertiary education; e) Thinly populated area; f) Yes; g) Yes; h) ISCO9: Elementary occupations; i) Continuous; j) Continuous; k) Continuous; # Marginal effects computed at the average sample value. ***: significant at 1%.

- Household characteristics also play an important and similar role to that played in transitions from non-employment to employment. Single individuals are about 5% to 6% more likely to find a permanent job than married people after one or two years on a temporary contract. Being a single earner facilitates the transition to a permanent job, particularly after two years. Parents with young children have higher transition rates into permanent employment.
- The degree of urbanisation also plays a role. Individuals living in densely populated areas have a greater chance of moving into a permanent job than those living in thinly populated areas. This contrasts with the effect of urbanisation on non-employment to employment transitions. In fact, while living in a thinly populated area seems to facilitate moving into employment, it hinders moving into more stable employment.
- Holding a temporary contract in some occupations, such as 'clerks', 'service workers and shop market sales', and 'plant and machine operators and assemblers' leads more frequently to transitions into permanent jobs than in other occupations.
- In the one-year transitions regression, a segmentation indicator is used as an explanatory variable. It is calculated in terms of the relative difference in employment

Table 11: Determinants of transitions from 'low-pay' to 'higher-pay' - EU a) - pooled data 2004-2007

		1-year transitions						2-years transitions					
		Odds Ratio	S.E.	Wald	DF	Sig.		Odds Ratio	S.E.	Wald	DF	Sig.	
Men	a)	2.396	0.001	3.E+06	1	.000	***	2.388	0.001	1.E+06	1	.000	***
Contract type (in the final period)	b)												
Temporary		0.549	0.000	2.E+06	1	.000	***	0.497	0.001	1.E+06	1	.000	***
Age group	c)												
15-24		2.411	0.001	4.E+05	1	.000	***	2.744	0.002	3.E+05	1	.000	***
25-34		2.982	0.001	8.E+05	1	.000	***	3.150	0.002	5.E+05	1	.000	***
35-54		1.685	0.001	3.E+05	1	.000	***	1.813	0.001	2.E+05	1	.000	***
Marital Status	d)												
Single		1.183	0.001	1.E+05	1	.000	***	1.400	0.001	2.E+05	1	.000	***
Education	e)												
Primary		0.532	0.001	7.E+05	1	.000	***	0.668	0.001	1.E+05	1	.000	***
Secondary		0.683	0.001	3.E+05	1	.000	***	0.778	0.001	6.E+04	1	.000	***
Degree of Urbanisation	f)												
Densely populated area		1.303	0.001	2.E+05	1	.000	***	1.353	0.001	2.E+05	1	.000	***
Intermediate area		1.124	0.001	4.E+04	1	.000	***	1.150	0.001	3.E+04	1	.000	***
Other employed individuals in the household	g)												
No		1.082	0.001	2.E+04	1	.000	***	0.955	0.001	4.E+03	1	.000	***
Children younger than 13 in the household	h)												
No		0.926	0.000	3.E+04	1	.000	***	0.803	0.001	1.E+05	1	.000	***
Occupation at the beginning of the period (ISCO at 1 digit)	i)												
ISCO1 - legislators, senior officials and managers		5.360	0.002	7.E+05	1	.000	***	4.887	0.003	3.E+05	1	.000	***
ISCO2 - professionals		3.338	0.001	1.E+06	1	.000	***	3.667	0.002	5.E+05	1	.000	***
ISCO3 - technicians and associate professionals		2.349	0.001	1.E+06	1	.000	***	2.391	0.001	6.E+05	1	.000	***
ISCO4 - clerks		2.050	0.001	9.E+05	1	.000	***	2.099	0.001	5.E+05	1	.000	***
ISCO5 - service workers and shop and market sales workers		1.404	0.001	3.E+05	1	.000	***	1.240	0.001	6.E+04	1	.000	***
ISCO6 - skilled agricultural and fishery workers		1.139	0.001	9.E+03	1	.000	***	1.100	0.002	3.E+03	1	.000	***
ISCO7 - craft and related trades workers		1.890	0.001	6.E+05	1	.000	***	1.709	0.001	2.E+05	1	.000	***
ISCO8 - plant and machine operators and assemblers		2.490	0.001	1.E+06	1	.000	***	2.250	0.001	4.E+05	1	.000	***
Unemployment rate	j)	-----	-----	-----	-----	-----	-----	-1.288#	0.147	2.E+03	1	.000	***
Experience (number of years spent in paid work)	k)	0.003#	0.000	2.E+05	1	.000	***	0.003#	0.000	7.E+04	1	.000	***
Unweighted number of cases		20476						8853					
Pseudo R2: Nagelkerke R Square		0.196						0.210					

a) Cut-off is 2/3 of median income. 15 EU Member States (AT, BE, CZ, EE, ES, FR, EL, IE, IT, LT, LU, LV, PL, PT, SE).

Reference category: a) Women; b) Permanent; c) Age group 55-64; d) Married; e) Tertiary education; f) Thinly populated area; g) Yes; h) Yes; i) ISCO9: Elementary occupations; j) Continuous; k) Continuous. # Marginal effects computed at the average sample value. ***: significant at 1%.

protection between regular and temporary contracts (OECD, 2004). An increase rises employers' incentive to hire temporary workers, and should therefore be negatively correlated with the probability of moving into permanent work.⁽⁵⁰⁾ Indeed, and as expected, the results suggest that segmentation hinders moving into stable employment.

(50) Chart 8 already suggested that easing regulations on temporary contracts increases the incentive to hire temporary workers to a larger extent when there is stricter employment protection for permanent contracts.

8. A rise in the incidence of long-term unemployment also reduces the probability of finding more stable employment.

Table 11 looks at the determinants of *transitions up the income ladder*. Results after one and two years are very similar. They show that the odds of moving out of low pay (below 2/3 of median income) are more than double for men (+140%) and for those in the 15-24 (+174%) and 25-34 age brackets (+215%).

The effect of education is highly significant, both for primary- and

secondary-educated individuals, for whom the chances of exiting low pay are 33% and 22% lower than for tertiary qualified individuals. Experience in the labour market (measured in terms of number of years spent in paid employment) increases the likelihood of moving out of low pay. Occupation also has a marked effect on the likelihood of moving out of low pay, with high ranking occupations (e.g. ISCO1 and ISCO2) having much better odds.

Holding a temporary contract at the end of two years constitutes a severe handicap for moving out of low pay. If

all other things are equal, a temporary worker has just about half as much chance of moving out of poverty as a permanent worker after two years.

Household characteristics also have a significant impact. Single individuals, individuals with other members of the household working and individuals with small children have a better chance of exiting low pay (+40%, +4%, and +20% respectively). A high degree of urbanisation also increases the chances of moving out of poverty.

8. TEMPORARY CONTRACTS AND EMPLOYMENT VOLATILITY

8.1. The 'honeymoon effect' of two-tier reforms

Boeri (2010a and 2010b) and Bentolila (2010) argue that the widespread use of temporary contracts, resulting from two-tier EPL reforms, increases the business cycle volatility of employment. During upturns, substantial job creation takes place, predominately through temporary contracts, while during downturns substantial job destruction occurs, mainly because temporary contracts are not renewed when they expire. In fact, the extensive use of temporary contracts in countries with highly regulated permanent contracts is likely to *amplify* the volatility of total paid employment vis-à-vis economic shocks, as illustrated by recent developments in a number of Member States such as Spain.

As regards two-tier reforms, which typically expand the scope for the use of temporary contracts, it is particularly relevant to consider their impact before a new long-term equilibrium is reached. Boeri and Garibaldi (2007) suggest that easing temporary contracts leads to higher employment fluctuations during the economic cycle. In good times, firms increase

average employment levels in order to take advantage of the liberalisation of temporary contracts, while the reduction in employment levels during downturns is constrained by the existing stock of permanent workers.

This is what Boeri and Garibaldi (2007) call the '*honeymoon effect*' of two-tier EPL reforms on employment creation, which is likely to be larger, the stricter EPL is on permanent contracts. The increase in the employment intensity of growth registered in several continental EU Member States following the loosening of protection on temporary contracts corroborates this prediction (Garibaldi and Mauro, 2002). However, this model also suggests that employment increases are partly *temporary*, as firms gradually adjust the stock of permanent workers downwards by means of 'natural turnover' (i.e. voluntary departures and retirement), and eventually replace some of the permanent workers by temporary ones.

Given that temporary workers tend to suffer the brunt of the adjustment in downturns, together with the pronounced age profile of the incidence of temporary work, it is not surprising to see that young workers were especially affected by rises in aggregate unemployment between 2007 and 2009 (Chart 33).

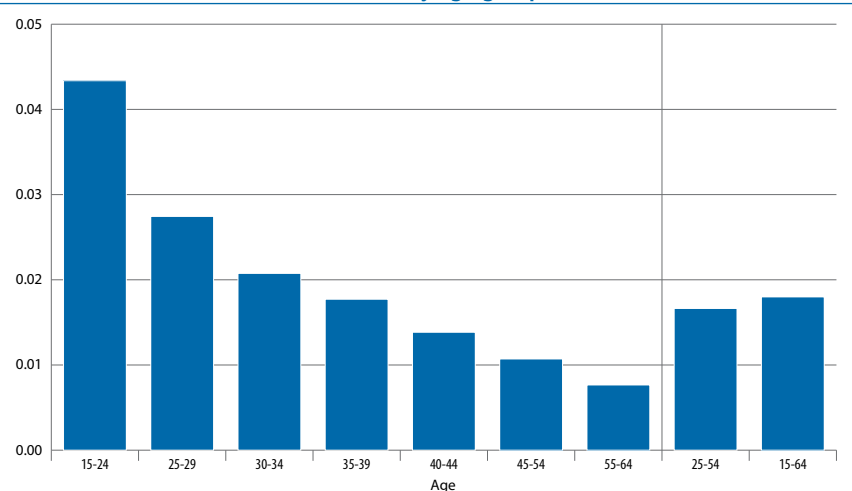
8.2. Business cycle volatility, youth and temporary employment

There is a considerable body of evidence suggesting that the young, the least educated and ethnic minorities are more severely hit during downturns, while young people do especially well in upturns.

Blanchflower and Freeman (2000) identified the disproportionately large response of youth employment and unemployment to changes in overall labour market conditions. The sensitivity of the labour market for young people to changes in the economic cycle tends to dominate the effects of any sizeable demographic (e.g. smaller cohorts) and/or structural effects (e.g. better educated), which tend to be favourable to young cohorts in general compared to other age groups.

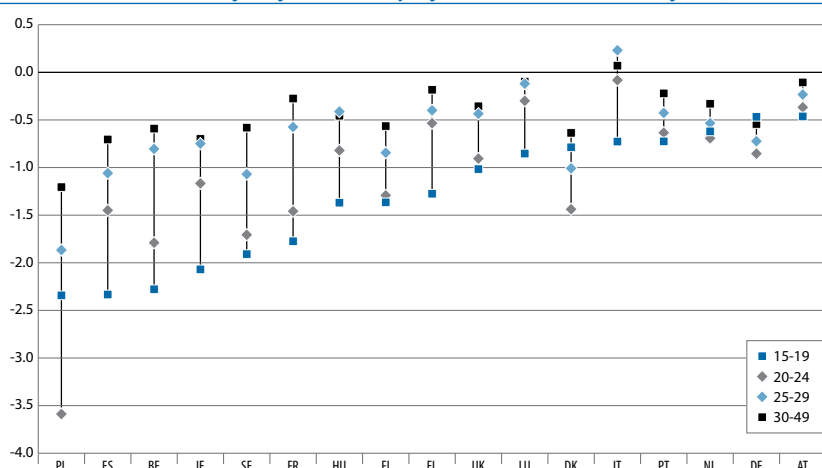
More recent work from the OECD (2008) confirms the finding that the sensitivity to the cycle of employment rates for young people is higher than for prime-age adults (aged 30 to 49 years). Furthermore, sensitivity of youth unemployment to the cycle tends to decline progressively with age (Chart 34), being greater for teenagers (15 to 19 years) than for young adults (20 to 24 years) in most countries.

Chart 33: UR differences after and before the crisis (2009-2007) in the EU by age group



Source: EU LFS.

Chart 34: The sensitivity of youth unemployment to the business cycle (1980-2006)



Source: OECD (2008), *Employment Outlook*, Chapter 1, pp. 35.

Ranking of countries based on the sensitivity of teenagers' unemployment.

The OECD (2009) found that the sensitivity to the business cycle of total hours worked by temporary workers is about 2.5 times greater than for permanent ones, with temporary workers disproportionately hit by falling aggregate demand. Such effects largely interact with age, as there is also a high incidence rate of temporary work among young workers. The OECD also estimated that the rising share of temporary contracts over past decades has been responsible for an increase of almost 9% in the overall business cycle volatility of total

Box 4: Access to unemployment insurance (UI) and coverage of vulnerable groups

Access to Unemployment Insurance (UI) – some econometric evidence

Recent work carried out by the Commission (European Commission, forthcoming⁽¹⁾) used anonymised micro data from EU SILC to identify possible 'discriminatory factors' determining access to UI and the net replacement rate.⁽²⁾ Results suggest that, although self-employed and temporary workers have limited access to UI, those that benefit may do so at higher replacement rates than permanent workers, because of the lower wages they receive.

As regards access to UI, the evidence suggests that the self-employed and to a lesser extent also temporary workers, women, and workers with limited labour market experience, and/or reduced contributory work history, have limited access to UI. After controlling for a number of variables, such as labour market experience, young workers are not found to be at a disadvantage as regards eligibility for UI.

As regards the net replacement rate, the evidence suggests that women, young workers and individuals with limited experience or contributory work history have lower UI replacement rates. Moreover, results suggest that UI plays an important role in the redistribution of income, as the replacement rate declines for individuals belonging to higher income groups and/or with tertiary education. From a social welfare perspective, this is a particularly welcome result given that, all other factors being equal, people on low incomes are also more likely to become unemployed and/or undergo frequent unemployment spells.

Coverage of UI for vulnerable groups – preliminary update of Alphametric's (2009) indicator

Recent work by DG ECFIN (2010) identified Member States that since the second quarter of 2008 have introduced changes with respect to the eligibility, level and duration of unemployment benefits. The analysis found that several Member States introduced changes that involve eligibility/coverage of UI, namely Finland, France, Ireland, Spain, Italy, Lithuania, Latvia, Portugal, Sweden, Slovenia, Slovakia, and the United Kingdom.

Although the impact of changes on the eligibility of UI cannot always be (easily) quantifiable (e.g. Slovakia now takes into account the period of parental leave in the assessment of entitlements to UI), Commission Services have nevertheless attempted to quantify changes in eligibility criteria for UI – in response to the recent recession – in order to increase coverage for previously ineligible workers belonging to vulnerable groups, such as part-time workers, workers with temporary contracts, and the self-employed. The Alphametric's (2009) study was updated using three sources of information to identify possible changes in eligibility conditions targeting those vulnerable groups, namely the institutional database MISSOC⁽³⁾, the second joint OECD/DG EMPL questionnaire of February 2010, and a database of recovery measures maintained by DG ECFIN⁽⁴⁾.

Results suggest that, although many Member States have modified several aspects of their UI systems since the onset of the recent recession, only a limited number have introduced changes involving eligibility/coverage of UI for vulnerable groups. An update of the Alphametric's (2009) indicator – initially calculated for 2007 – suggests that on average across the EU, UI coverage of part-time and temporary workers remained basically unchanged (between 2007 and 2009), but that coverage of self-employed workers improved, reflecting policy developments in two Member States (Slovenia and Finland).

(1) A DGs ECFIN and EMPL joint paper on Unemployment Insurance.

(2) Results are tentative and should be interpreted carefully, because of sample limitations. The sample covers 16 EU Member States, including about 1600 observations for the analysis of access to UI and 600 as regards the determinants of the net replacement rate. The sample is unbalanced and covers only the pre-crisis period, namely 2004/2005 to 2007. The inclusion of country interaction effects is also limited, although these are likely to be necessary for an accurate overall picture given the country specificities of UI systems.

(3) EU's Mutual Information System on Social Protection (MISSOC) provides detailed, comparable and regularly updated information (twice a year) about national social protection systems.

(4) Version of 16/02/2010.

hours worked across OECD Member States⁽⁵¹⁾.

These findings imply that, during recessions, the share of young and temporary workers among jobless people increases. Moreover, they also have to compete for a reduced number of job vacancies with bet-

ter qualified job-seekers with more stable employment histories, and who might also have been made redundant, particularly in deep recessions *like the recent one*. As better-qualified workers are likely to be preferred by firms making recruitment decisions, dismissed temporary workers have a signif-

icantly higher risk of becoming long-term unemployed following an economic downturn. This effect is also liable to be exacerbated by lack of eligibility for income safety nets in the event of job loss due to having too short or intermittent work histories (OECD, 2009; and Box 4).

Box 5: Temporary employment as an adjustment mechanism

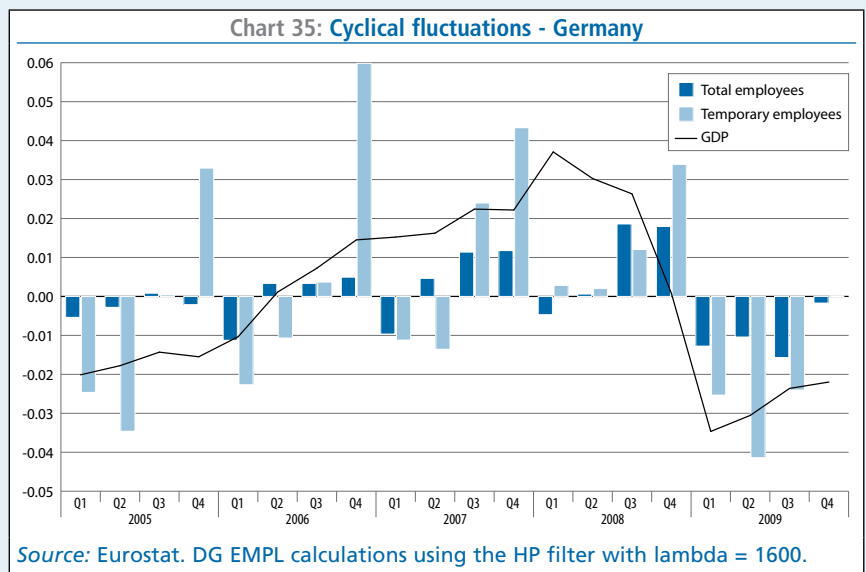
Bentolila (2010) considers that in Europe there are three major modes for the adjustment of labour markets to cyclical fluctuations, predominantly via: i) temporary employment (e.g. Spain); ii) wages (e.g. UK); and iii) working hours (e.g. Germany).

This box discusses some aspects related to the role of temporary contracts in adjusting labour demand. The scope for using temporary contracts during a downturn/recession obviously depends on their initial use (Table 12), and therefore varies considerably across Member States.

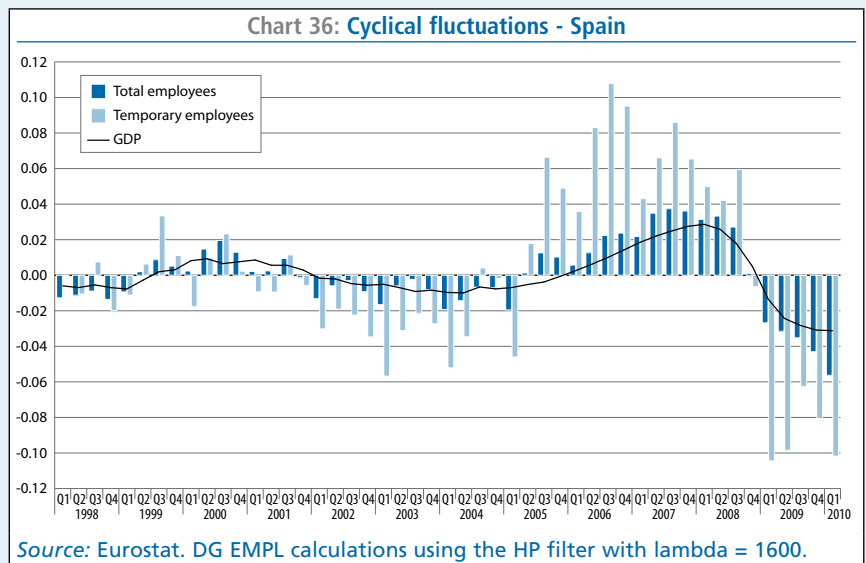
Table 12: Ratio of temporary employees to total paid employment

COUNTRY	2007	2009
AT	8.9	9.1
BE	8.6	8.2
BG	4.9	4.6
CY	13.3	13.5
CZ	7.8	7.5
DE	14.6	14.5
DK	8.6	8.9
EE	2.2	2.5
ES	31.7	25.5
FI	15.8	14.5
FR	14.2	13.3
EL	10.9	12.1
HU	7.3	8.4
IE	7.2	8.4
IT	13.2	12.5
LT	3.5	2.3
LU	6.8	7.2
LV	4.2	4.4
MT	5.1	4.7
NL	17.8	17.8
PL	28.2	26.4
PT	22.4	22.0
RO	1.6	1.0
SE	17.2	14.9
SI	18.3	16.2
SK	5.0	4.3
UK	5.7	5.5
EU27a	11.3	10.7

a) Non-weighted average.



Source: Eurostat. DG EMPL calculations using the HP filter with lambda = 1600.



Source: Eurostat. DG EMPL calculations using the HP filter with lambda = 1600.

(51) Although such an increase is almost cancelled out by other offsetting compositional changes in the workforce, namely with respect to age and skill levels

On average, across Europe during the recent economic recession, numbers of temporary jobs declined by more than numbers of permanent ones. Charts for Germany, Spain, and the UK show the estimated cyclical fluctuations of temporary and permanent employment, and GDP, using the Hodrick-Prescott (HP) filter.

In Spain, the brunt of the adjustment of employment levels to labour demand (both during expansions and contractions) is borne by temporary workers (Chart 36). Conversely, Charts 35 and 37 suggest that the role of temporary contracts is much less prominent in Germany and the UK, respectively.

The rest of this box provides a tentative answer to the following question: Is a higher incidence of temporary jobs (over the cycle) associated with stronger cyclical fluctuations for total paid employment?

Okun's law⁽¹⁾ is used to estimate a pooled regression for the cyclical component of total paid employment. Eurostat's annual data are used for the estimate. Cyclical values are calculated using the HP filter (with $\lambda=6.5$).

The estimated regression is

$$y_{it} = b_1 X_t^1 + b_2 X_i^2 + b_3 (1 + b_4 D_{it}) X_{it}^3 + b_5 (1 + b_6 D_{it-1}) X_{it-1}^3 + \varepsilon_{it} \quad (\text{eq. 1})$$

where

i : Country

t : Year

y_{it} : Cyclical component of total paid employment

X_t^1 : Year dummy

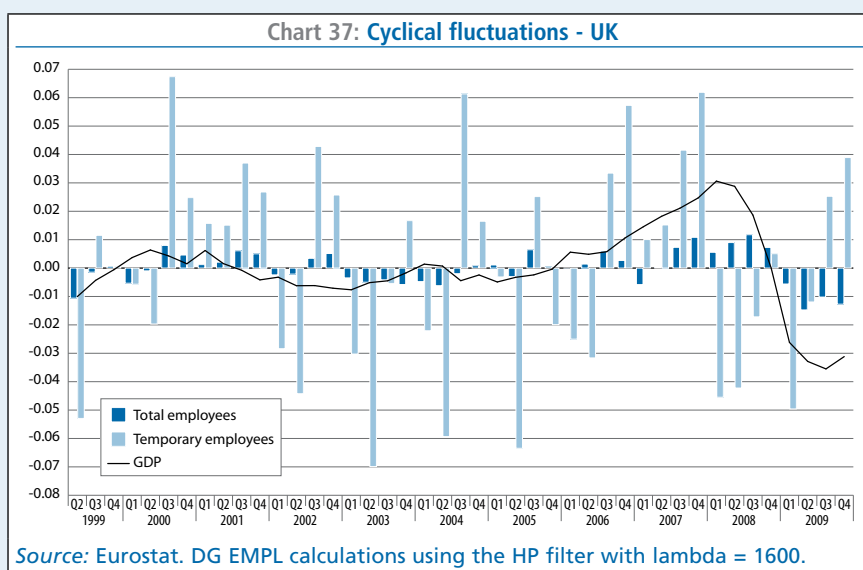
X_i^2 : Country dummy

X_t^3 : Cyclical component of GDP

D : Sign of the GDP gap dummy {0: negative output gap i.e. $X^3 < 0$; 1: positive output gap i.e. $X^3 > 0$ }

y_{it} and X^3 are expressed in logarithms

In equation 1, the cyclical component of total paid employment is regressed on the current and lagged one period cyclical component of GDP, allowing for different slopes according to the economic cycle, and controlling for country and time-fixed effects. When the output gap is positive (negative) (i.e. $X^3 > 0$ or $X^3 < 0$), current year effects are given by, respectively, $b_3 \cdot (1 + b_4)$ and b_3 .



(1) Okun's law reflects the idea that over the business cycle additional production of goods and services requires more employed workers (EiE, 2002, chapter 2).

Sala and Silva (2009) developed a matching model in order to reproduce the cyclical behaviour of the Spanish labour market and found that the gap in firing costs and productivity between permanent

and temporary employees plays a large role in explaining the high rate of employment volatility in Spain, where temporary contracts are the main tool for adjusting labour demand.

Box 5 provides some evidence suggesting that a larger share of temporary employment does tend to be associated with higher cyclical volatility of total paid employment in a number of EU Member States.

Table 13 presents some results, namely the estimated elasticities of the cyclical variation in paid employment to the GDP gap, and country-fixed effects. The latter can be interpreted as country dummies. Results suggest significant lags in the adjustment and a marked asymmetry depending on the sign of the output gap, with a negative gap having a much stronger impact on employment destruction (in absolute terms) than a positive output gap has on employment creation (i.e. a cyclical contraction of 1pp in GDP changes paid employment in absolute terms by more than an expansion of the same magnitude).

Table 13: Parameter estimates

Dependent Variable: logarithm of the cyclical component of total paid employment

Parameter	Parameter	Estimate	Std. Error	t	Sig.	
AT		-0.00116	.004	-.279	.780	
BE		-0.00123	.004	-.296	.768	
BG		-0.00181	.005	-.378	.706	
CY		-0.00098	.004	-.222	.825	
CZ		-0.00092	.004	-.204	.838	
DE		-0.00073	.004	-.181	.856	
DK		-0.00058	.004	-.150	.880	
EE		0.00101	.005	.200	.842	
ES		0.00012	.004	.029	.977	
FI		-0.00069	.004	-.159	.874	
FR		-0.00073	.004	-.191	.848	
EL		-0.00157	.004	-.381	.703	
HU		-0.00104	.004	-.242	.809	
IE		-0.00032	.004	-.074	.941	
IT		-0.00127	.004	-.334	.739	
LT		0.00118	.005	.230	.818	
LU		0.00026	.004	.058	.954	
LV		0.00081	.005	.148	.882	
MT		0.00071	.005	.154	.878	
NL		-0.00074	.004	-.187	.852	
PL		0.00049	.004	.115	.909	
PT		-0.00159	.004	-.382	.703	
RO		-0.00191	.005	-.407	.685	
SE		-0.00115	.004	-.270	.787	
SI		-0.00113	.004	-.257	.797	
SK		-0.00119	.005	-.256	.798	
UK		-0.00048	.004	-.124	.901	
Negative current GDP gap	b3	0.650	.068	9.615	.000	***
Positive current GDP gap	b3*(1+b4)	0.292	.074	3.967	.000	***
Negative lagged one period GDP gap	b5	0.414	.117	3.523	.000	***
Positive lagged one period GDP gap	b5*(1+b6)	0.290	.071	4.095	.000	***

R Squared = .637 (Adjusted R Squared = .579).

*** Values significant at 1%.

Chart 38: Actual and estimated cyclical variation in paid employment in 2009

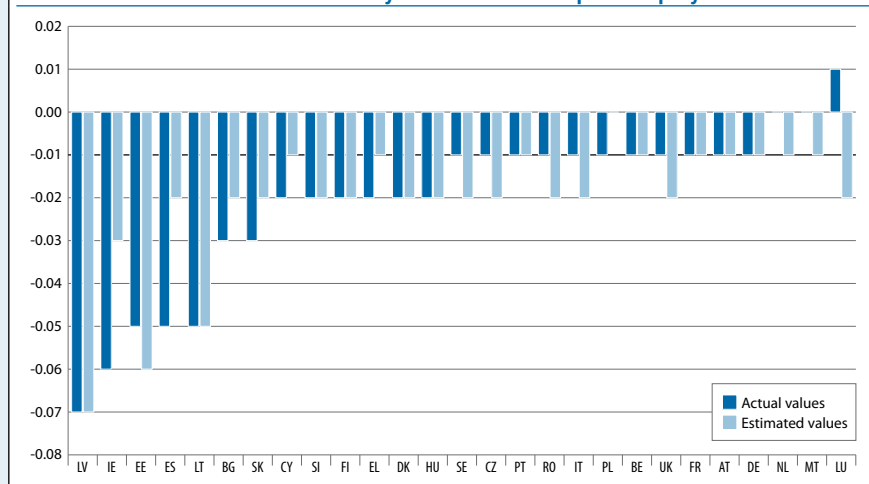
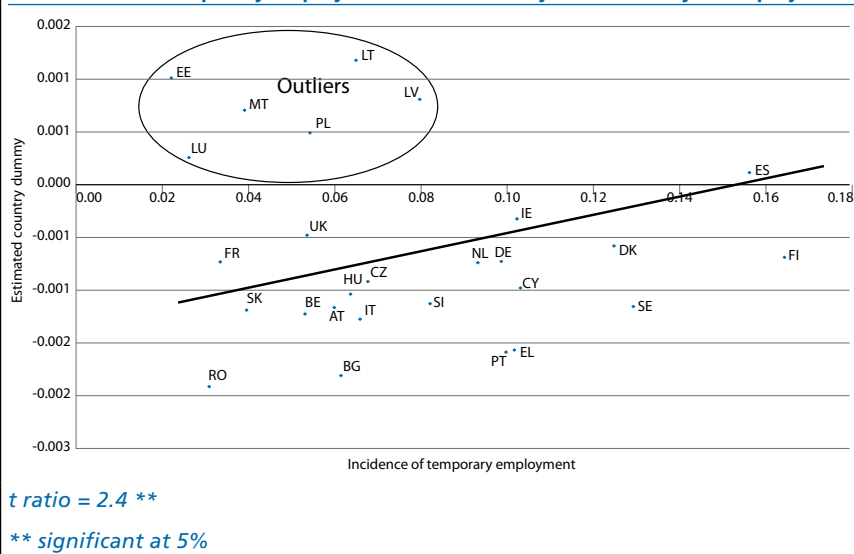


Chart 39: Does temporary employment increase the cyclical volatility of employment?



(2) Six countries were considered as outliers and therefore excluded from the calculation of this correlation, namely Estonia, Latvia, Lithuania, Luxembourg, Malta and Poland. Apart from Poland, all these Member States can be characterised as small open economies. Poland's position as an outlier might reflect the exceptional labour market conditions at the turn of the century, when unemployment rates stayed close to 20% for a number of years.

This regression tracks reasonably well actual developments (Chart 38).

In order to assess whether a higher incidence rate of temporary jobs is likely to increase the cyclical volatility of total paid employment, country dummies are correlated with the average incidence of temporary jobs in the period covered by the regression (Chart 39).

Chart 39 suggests that the incidence of temporary employment does increase the cyclical volatility of total paid employment i.e. the correlation is significant at 5%.⁽²⁾

9. CONCLUSIONS AND POLICY RECOMMENDATIONS

During the past decades, reforms of employment protection legislation (EPL) introduced in European countries have often been 'partial' or 'two-tier', i.e. they have substantially deregulated the use of temporary contracts, while maintaining stringent firing rules for permanent ones, rather than reforming EPL 'across-the-board'. Some labour economists argue that such reforms have distinct effects relative to 'complete' ones. Two-tier reforms have led, firstly, to a large expansion of temporary employment and, secondly, to the emergence of dual labour markets i.e. one for permanent employees (or 'insiders') with stable employment and good career and earnings prospects, and another for temporary employees (or 'outsiders') who tend to be 'trapped' into temporary jobs with precarious attachment to the labour market (Spain being the most prominent example of such a trend).

In several EU countries, a large share of hiring takes place via temporary contracts, mainly affecting young workers. Temporary jobs account for around 40% of total dependent

employment among young workers in the EU, i.e. about four times the level for the total working-age population. Both descriptive and econometric evidence find that labour market segmentation lowers transition rates from temporary to permanent employment, and constitutes a severe handicap to moving to better paid jobs.

Temporary jobs can fulfil a number of functions. They can provide a 'screening' device allowing firms to evaluate workers' ability/adequacy for the job. In this sense, temporary jobs can act as a 'gateway' to the labour market and as potential 'stepping stones' to more stable and better paid jobs. Temporary contracts can act as a buffer, facilitating firms' adjustment to temporary demand shocks, thereby avoiding costly adjustments to their 'core' labour force. Conversely, temporary contracts can simply be a convenient way for firms to reduce labour costs, substituting temporary for permanent workers. The evidence suggests that the latter function plays a more prominent role in segmented labour markets.

Overall, two-tier reforms increase both hiring and separation rates. Although temporary workers have been disproportionately affected by job cuts during the 2008-2009 recession, net

employment gains since 2000 remain positive overall in the EU and in the largest Member States, reflecting the overall positive effect that such reforms had on employment creation through the accrued flexibility in labour markets. Nevertheless, two-tier reforms have also induced changes in the composition of the workforce, leading to a partial substitution of temporary for permanent workers. This is in line with economic theory that predicts that two-tier EPL reforms initially yield a 'honeymoon effect' on employment via the expansion of temporary work, with such gains being gradually eroded. In some circumstances, namely when the regulatory asymmetry (between permanent and temporary contracts) is particularly large, two-tier EPL reforms could even reduce total employment (i.e. the positive effect on recruitment could then be more than balanced out by the negative impact on job losses).

Temporary workers in general and young people in particular have been particularly hard hit during the recent recession. This largely represents the counterpunch of the large expansion of temporary work in those countries that had previously implemented 'two-tier' EPL reforms. Hence, segmentation has increased the business cycle volatility of employment. According to the OECD,

the business cycle sensitivity of total hours worked for temporary workers is about 2½ times greater than for permanent ones. Evidence provided in the chapter highlights that in a segmented labour market such as Spain, the adjustment of employment levels to the business cycle is overwhelmingly borne by temporary workers, whereas this is much less the case in Germany or the UK. Econometric estimates suggest that cyclical variations of employment in relation to GDP fluctuations are higher in Member States with a higher incidence of temporary employment.

Temporary workers tend to have reduced access to training provided/subsidised by firms as the limited duration of their employment relationship discourages investment in (firm-specific) human capital. Conversely, results from econometric analysis show that temporary workers with a medium-to-low level of initial education are more likely to participate in further 'formal' education, thereby suggesting the existence of a 'catching-up' effect.

Low conversion rates of temporary into permanent jobs may discourage temporary workers from exerting effort on the job. The evidence for countries with a high incidence of temporary work (e.g. Spain) suggests that the combined effects of reduced vocational training and lower work effort might be a significant slowdown in the growth rate of total factor productivity.

Segmentation also affects wage formation and pay levels. Evidence suggests that a high incidence of temporary work raises wages for permanent workers, as their bargaining power is strengthened by the presence of temporary workers who have a higher probability of being dismissed. Furthermore, temporary contracts often involve a substantial wage penalty. After controlling for a number of personal characteristics, estimates show that temporary workers earn on average significantly less than permanent staff in the EU.

Although temporary work may facilitate the transition process from education to the world of work, particularly

in those countries where the apprenticeship system is underdeveloped, labour market segmentation increases the risk that many young people will become trapped (even into their thirties), moving for years between temporary jobs and unemployment interludes, with limited career prospects. A precarious start to adult life is likely to exacerbate perceived insecurity, thereby impacting on individuals' behaviour. Evidence from a number of countries suggests that young people with temporary jobs (rather than permanent ones) tend to have a higher incidence of co-residence with their parents, which tends to delay emancipation, household formation and childbearing decisions.

Young people are particularly vulnerable at the moment of moving from school to work, especially the least qualified who have the greatest difficulties in getting a foothold in the labour market. Econometric estimates show that tertiary educated individuals are at least twice as likely to experience good transitions (e.g. from joblessness to employment or from temporary to permanent employment) than individuals with only primary education. The share of NEET (Not in Education, Employment or Training) youth provides a good measure of employment integration of young labour market entrants and varies significantly within the EU from as low as about 4% in Denmark and the Netherlands to as high as 16-20% in Italy, Cyprus and Bulgaria.

Recent work from the OECD confirms the finding that the sensitivity to the economic cycle of employment rates for the young is higher than for prime-age adults. Furthermore, the sensitivity of youth unemployment to the economic cycle tends to decline progressively with age, being greater for teenagers (15 to 19 years) than for young adults (20 to 24 years) in most countries. Although a larger responsiveness of youth employment to cyclical conditions is a natural feature of labour markets⁽⁵²⁾, there is

also ample evidence suggesting that a spell in unemployment early in adult life (i.e. teenage or early twenties) has lasting negative effects both in terms of future employment and wage prospects, although the literature seems divided as regards the extent of these effects.

Recent academic work by a number of well-known European labour economists suggest the need to develop a comprehensive strategy, based largely on flexicurity principles, in order to tackle labour market segmentation by providing a kind of roadmap to exit dualism. It is important to stress that such a strategy should encompass several policy initiatives tailored to national circumstances (i.e. no "one-size-fits-all" strategy). The set of measures proposed includes the adoption of a 'single permanent contract', replacing the existing legal asymmetry between permanent and fixed-term contracts. Such contract would be characterised by employment security increasing concurrently with job tenure (e.g. through the gradual rise in severance payments rights).

However, the 'single contract' alone is unlikely to solve the problem of labour market dualism, as the use (or abuse) of temporary contracts is not solely linked to legal aspects concerning employment contracts but is also affected by production patterns, social dialogue practices, firms' human resource policies, etc⁽⁵³⁾. For this reason, other accompanying measures are often mentioned, such as the introduction of a minimum wage; universal eligibility to unemployment insurance regardless of the type of contract; and limiting the application of temporary contracts to specific circumstances, such as genuine temporary tasks or highly paid work. A framework for youth employment recently proposed by the European Commission as a part of its "Youth on the Move" initiative⁽⁵⁴⁾ contains many of these elements.

(52) As a norm, firms first fire less experienced/younger workers, but younger unemployed tend also to be more adaptable and quickly find a new job than older ones.

(53) See the Report 'Job Security – Facing the challenges of economic change' produced by the French 'Conseil de de l'Emploi, des Revenus et de la Cohésion Sociale' for a discussion.

(54) "Youth on the Move", COM(2010) 477.

REFERENCES

- Alba-Ramirez A. (1994), 'Formal training, temporary contracts, productivity and wages in Spain', *Oxford Bulletin of Economics and Statistics*, 56(2), 151-170.
- Albert, C., C. García-Serrano and V. Hernanz (2004), 'Firm-provided training and temporary contracts', *Spanish Economic Review*, Springer, vol. 7(1), pages 67-88, January.
- Alphametrics (2009), 'Flexicurity: Indicators on the coverage of certain social protection benefits for persons in flexible employment in the European Union', VC/2007/0870. This study was commissioned by DG EMPL under the PROGRESS programme.
- Becker S., Bentolila S., Fernandes A., Ichino A. (2005), 'Youth Emancipation and Perceived Job Insecurity of Parents and Children', IZA DP N°1836.
- Bell D., Blanchflower D. (2009), 'What should be done about rising unemployment in the OECD?', IZA DP N°4455.
- Bentolila S., Jimeno J. (1998), 'Regional Unemployment Persistence (Spain, 1976-1994)', *Labor Economics* 5, 25-51.
- Bentolila, S. (2010), 'Dualism in Spain: El Contrato Único', Presentation at Workshop on 'Beyond Dual Labor Markets. The Time of Legislation', Fondazione Rodolfo De Benedetti, Università Bocconi, Milan, March 17th 2010.
- Bentolila, S. and J. Dolado (1994), 'Labour Flexibility and Wages: Lessons from Spain', *Economic Policy* 18, 53-99.
- Bentolila, S., J. Dolado and J. Jimeno (2008), 'Two-tier Employment Protection Reforms: The Spanish Experience', *CESifo DICE Report*, Ifo Institute for Economic Research at the University of Munich, vol. 6(4), pages 49-56, December.
- Blanchard, O. and L. Katz (1992), 'Regional Evolutions', *Brookings Papers on Economic Activity*, 1, 1-75.
- Blanchflower, D. and R. Freeman (2000), 'Youth employment and joblessness in advanced economies', NBER.
- Blau, F. and L. Kahn (2000), 'Gender differences in pay', *Journal of Economic Perspectives*, 14, 75-99.
- Böckerman P. (2004), 'Perception of job instability in Europe', *Social Indicators Research*, 67, 283-314.
- Boeri, T. and P. Garibaldi (2008), 'Un nuovo contratto per tutti', Ed. Chiarelettere.
- Boeri, T. (2010a), 'Dualism, the Crisis and Beyond', Presentation at Workshop on 'Beyond Dual Labor Markets. The Time of Legislation', Fondazione Rodolfo De Benedetti, Università Bocconi, Milan, March 17th 2010.
- Boeri, T. (2010b), 'Institutional Reforms in European Labour Markets', *Handbook of Labour Economics, forthcoming*.
- Boeri, T. and P. Garibaldi (2007), 'Two-tier Reforms of Employment Protection Legislation: A Honeymoon Effect', *Economic Journal* 117, 357-85.
- Booth, A., M. Francesconi and J. Frank (2002), 'Temporary Jobs: Stepping Stones or Dead Ends?', *The Economic Journal*, Royal Economic Society, Vol. 112, F189-F213, June.
- Bover, O. and R. Gomez (2004), 'Another Look at Unemployment Duration: Exit to a Permanent versus a Temporary Job', *Investigaciones Economicas* 28, 285-314.
- Cahuc P., Kramarz F. (2004), 'De la précarité à la mobilité: vers une Sécurité sociale professionnelle', Rapport au ministre de l'Économie, des Finances et de l'Industrie et au ministre de l'Emploi, du Travail et de la Cohésion sociale.
- Cahuc P., Zylberberg A. (2005), 'Le chômage, fatalité ou nécessité?', Éditions Flammarion.
- Cahuc, P. and F. Postel-Vinay (2002), 'Temporary Jobs, Employment Protection and Labor Market Performance', *Labor Economics* 9, 63-91.
- Clark A., Postel-Vinay F. (2009), 'Job security and job protection', *Oxford Economic Papers*, 61(2), 207-239.
- Conseil de l'Emploi, des Revenus et de la Cohésion Sociale (2005), Job Security – Facing the challenges of economic change, report, Paris (<http://www.cerc.gouv.fr/rapports/rapport5/report5cerc.pdf>).
- Davis, S.J. and J. Haltiwanger (1995), 'Measuring gross worker and job flows', NBER WP 5133, Cambridge, MA.
- De la Rica, S. (2004), 'Wage Gaps between Workers with Indefinite and Fixed-Term Contracts: The Impact of Firm and Occupational Segregation', *Moneda y Crédito* 219, 43-69.
- Decressin J., Fatás A. (1995), 'Regional Labour Market Dynamics in Europe', *European Economic Review* 39, 1627-1655.
- Dolado, J. J. and R. Stucchi (2008), 'Do Temporary Contracts Affect TFP? Evidence from Spanish Manufacturing Firms', *IZA Discussion Paper*, No. 3832, Institute for the Study of Labor (IZA).
- Dolado, J., C. Garcia-Serrano and J. Jimeno (2002), 'Drawing Lessons from the Boom of Temporary Jobs in Spain', *Economic Journal*, Royal Economic Society, vol. 112, pages F270-F295, June.
- Ellwood D. (1979), 'Teenage unemployment: permanent scars or temporary blemishes?', NBER.
- European Commission (2002), 'Employment in Europe', Chapter 2, 'Structural changes in the European labour markets'.

- European Commission (2004), 'Employment in Europe', Chapter 4, 'Labour market transitions and advancement: temporary and low-pay in Europe'.
- European Commission (2009), Employment in Europe, Chapter 2 'Labour Flows, Transitions and Unemployment Duration'.
- European Commission (2010), 'Labour market and wage developments in 2009', DG ECFIN, European Economy n°5.
- European Commission (2010), 'YOUNEX – Youth, Unemployment and Exclusion in Europe', DG Research, European Policy Brief.
- Giuliano P. (2004), 'On the determinants of living arrangements in Western Europe: does cultural origin matter?', mimeo International Monetary Fund.
- Green F., Dickerson A., Carruth A., Campbell D. (2001), 'An analysis of subjective views of job insecurity', manuscript.
- Gregg P. and E. Tominey (2005), 'The wage scar from youth unemployment', *Labour Economics* 12, 487-509.
- Guell, M. (2000), 'Fixed-term Contracts and Unemployment: an Efficiency Wage Analysis', *IRS Working Paper No. 433*, Princeton University.
- Guell, M. and B. Petrongolo (2007), 'How Binding are Legal Limits? Transitions from Temporary to Permanent Work in Spain', *Labour Economics* 14, 153-83.
- Guell, M. and Petrongolo, B. (2000). 'Workers' transitions from temporary to permanent employment: the Spanish case', *CEP*, Discussion Paper 438.
- Güell, Maia, 2003. "Fixed-Term Contracts and the Duration Distribution of Unemployment," *IZA Discussion Papers 791*, Institute for the Study of Labor (IZA).
- Jimeno, J. F., and Toharia, L. (1993). 'The effects of fixed-term employment on wages: theory and evidence from Spain', *Investigaciones Economicas*, vol. 17(3), pp. 475-94.
- Kahn, L.M. (2010), 'Employment protection reforms, employment and the incidence of temporary jobs in Europe: 1996-2001', *Labour Economics*, Vol. 17, pp. 1-15.
- Larsson L., Lindqvist L., Skans Oskar (2005), 'Stepping-stones or dead-ends? An analysis of Swedish replacement contracts', IFAU, WP 18.
- Layard R., Nickell S., Jackman R. (1991), 'Unemployment', Oxford University Press.
- Layard R. (2005), 'Happiness: lessons from a new science', The Penguin Press, New York.
- Mroz T., Savage T. (2006), 'The long-term effects of youth unemployment', *The Journal of Human Resources*, XLI, 2.
- OECD (2002), Employment Outlook, Chapter 3: Taking the Measure of Temporary Employment, OECD Publishing, Paris.
- OECD (2004), Employment Outlook, Chapter 2: Employment Protection Regulation and Labour Market Performance, OECD Publishing, Paris.
- OECD (2008), 'Off to a good start? Youth labour market transitions in OECD countries', Employment Outlook, Chapter 1.
- OECD (2009), Employment Outlook: Tackling the Job Crisis, OECD Publishing, Paris.
- OECD (2009), 'How do industry, firm and worker characteristics shape job and worker flows?', Employment Outlook, Chapter 2.
- OECD (2010), Employment Outlook, Chapter 3: Institutional and Policy Determinants of labour market flows, OECD Publishing, Paris.
- Quintini G., Martin P., Martin S. (2007), 'The changing nature of school-to-work transition process in OECD countries', IZA DP n°2582.
- Quintini G., Martin S. (2006), 'Starting well or losing their way? The position of youth in the labour market in OECD countries', *OECD, Social, Employment and Migration Working Papers n°39*.
- Saint Paul, G. (2000), 'Flexibility vs. Rigidity: Does Spain have the worst of both worlds?' *Economics Working Papers 450*, Department of Economics and Business, Universitat Pompeu Fabra.
- Sala, H and J. Silva (2009), 'Flexibility at the Margin and Labour Market Volatility: The Case of Spain', *Investigaciones Económicas*, Vol. 33 (2), 145-178.
- Venn, D. (2009), "Legislation, collective bargaining and enforcement: Updating the OECD employment protection indicators", *OECD Social, Employment and Migration Working Papers No. 89* OECD Publishing, Paris. www.oecd.org/els/workingpapers.

Statistical annex

1. DATA SOURCES AND DEFINITIONS

Main data sources

Most of the data used in this report originates from Eurostat, the Statistical Office of the European Union. The main data sources used are:

- European Union Labour Force Survey.
- ESA95 National Accounts.

The **European Union Labour Force Survey** (EU LFS) is the EU's harmonised household survey on labour market participation. While in the early years, it was carried out as an annual survey conducted in the spring quarter in many Member States, it is now a continuous quarterly survey in all EU Member States. If not mentioned otherwise, the results based on the LFS for years before the introduction of the quarterly survey refer to the spring quarter of each year. LFS data covers the population living in private households only (collective households are excluded) and refers to the place of residence (household residence concept). They are broken down by various socio-demographic categories, in particular gender and age. The EU LFS covers all EU

Member States as well as Croatia, Iceland, Macedonia and Turkey plus Norway and Switzerland.

A particular data collection connected to the EU LFS is Eurostat's 'LFS main indicators' which present a selection of the main statistics on the labour market. They encompass annual and quarterly indicators of population, activity and inactivity; employment; unemployment; education and training. Those indicators are mainly but not only based on the results of the EU LFS, in few cases integrated with data sources like national accounts employment or registered unemployment. National accounts employment data covers all people employed in resident producer units (domestic concept), including people living in collective households. In the main indicators, these national accounts figures are broken down by sex, working-time status (full-time/part-time) and contract status (permanent/temporary) using LFS distributions. Where available, all key employment indicators in this report are based on the 'LFS main indicators'.

For the unemployment-related indicators, Eurostat's series on unemployment comprises yearly averages, quarterly and monthly data. It is based on the (annual and quarterly) EU LFS data and monthly data on unemployment, either from

the national LFS or other national sources, mainly unemployment register data. For the compilation of monthly unemployment estimates, these monthly figures from national sources are benchmarked against the quarterly EU LFS data, and they are used to produce provisional unemployment figures for recent months which are not yet covered by quarterly EU LFS results. Unemployment by skills or duration is not available from this data collection.

Most macro-economic indicators are based on Eurostat's collection of national accounts data according to the European System of National Accounts (**ESA95 National Accounts**). Data is compiled by the Member States and collected by Eurostat. The collection comprises aggregates such as GDP, from which derived measures such as productivity and real unit labour costs are calculated. In addition, national accounts also cover population and employment data, the latter expressed in persons and in hours worked and also broken down by economic activity, but not by socio-demographic categories.

Forecasts for central economic indicators are produced by the Commission's Directorate-General for Economic and Financial Affairs (DG ECFIN) in spring and autumn, covering two years ahead.

Physically, data is generally obtained from Eurobase, Eurostat's online dissemination database, or in specific cases from AMECO, DG ECFIN's annual macro-economic database. Both databases are open to public access.

Data shown here represents availability and revision status of mid-August 2010.

Definitions and data sources of macro-economic indicators

All figures for 2010 and 2011 are forecasts and bound to change as real data becomes available. The same holds for earlier years where actual data are not available yet, which is the case in particular but not only for 2009 for a number of countries and indicators.

1. Real GDP: Gross Domestic Product (GDP), volume, annual change (Source: Eurostat, ESA95 National Accounts)
2. Total employment: Employment, total economy, annual change (Source: Eurostat, ESA95 National Accounts)
3. Labour productivity: GDP volume per person employed, annual change (Source: Eurostat, ESA95 National Accounts)
4. Annual average hours worked per person employed, annual change (Source: DG ECFIN, AMECO: Average annual hours worked per person employed)
5. Productivity per hour worked: GDP volume per hour worked, annual change (Source: DG ECFIN, AMECO: Gross domestic product at 2000 market prices per hour worked)
6. Harmonised CPI: harmonised consumer price index, annual change (Source: DG ECFIN, AMECO: Harmonised consumer price index) (Note: Figures for US and Japan are national consumer price indices and not fully comparable with those for European countries.)
7. Price deflator GDP: Implicit price deflator of GDP, annual change (Source: Eurostat, ESA95 National Accounts)
8. Nominal compensation per employee, total economy, annual change (Source: Eurostat, ESA95 National Accounts, except for US, JP, TR: DG ECFIN, AMECO)
9. Real compensation per employee (GDP deflator): nominal compensation deflated with the implicit deflator of GDP, per employee, annual change (Source: Eurostat, ESA95 National Accounts, except for US, JP, TR: DG ECFIN, AMECO)
10. Real compensation per employee (private consumption deflator): nominal compensation deflated with the implicit deflator of private consumption expenditure, per employee, annual change (Source: Eurostat, ESA95 National Accounts, except for US, JP, TR: DG ECFIN, AMECO)
11. Nominal unit labour costs: Nominal compensation per employee divided by labour productivity, annual change (Source: Eurostat, ESA95 National Accounts, except for US, JP, TR: DG ECFIN, AMECO)
12. Real unit labour costs: Real compensation per employee divided by labour productivity, annual change (Source: Eurostat, ESA95 National Accounts, except for US, JP, TR: DG ECFIN, AMECO)
1. Total population in 1000s, excluding population living in institutional households (Source: Eurostat, EU LFS. Note: Population living in institutional households is not covered. For Iceland, the LFS covers only the population from 16 to 74 years of age.)
2. Total population aged 15–64 (the 'working age population') in 1000s (Source: Eurostat, EU LFS)
3. Total employment in 1000s (Source: Eurostat, ESA95 National Accounts)
4. Population in employment aged 15–64 in 1000s (Source: Eurostat, EU LFS)
- 5-9. Employment rates: *calculated by the number of employed divided by the population in the corresponding age bracket* (Source: Eurostat, EU LFS)
10. Full-time equivalent employment rate: *calculated by dividing the full-time equivalent employment by the total population in the 15–64 age group. Full-time equivalent employment is defined as total hours worked on both main and second job divided by the average annual number of hours worked in full-time jobs* (Source: Eurostat, EU LFS).
11. Self-employed in total employment: *number of self-employed as a share of total employment* (Source: Eurostat, ESA95 National Accounts)
12. Part-time employment in total employment: *number of part-time employed as a share of total employment* (Source: Eurostat, EU LFS)
13. Fixed-term contracts in total employees: *number of employees with contracts of limited duration as a share of total employees* (Source: Eurostat, EU LFS)

Definitions and data sources of key employment indicators

Certain figures in particular but not only for 2009 for a number of countries and indicators may still be based on forecasts and bound to change as real data becomes available.

14. Employment in services: *employed in services (NACE Rev. 1.1 sections G-O) as a share of total employment (Source: Eurostat, ESA95 National Accounts)*
15. Employment in industry: *employed in industry, including construction (NACE Rev. 1.1 sections C-F) as a share of total employment (Source: Eurostat, ESA95 National Accounts)*
16. Employment in agriculture: *employed in agriculture, forestry and fishing (NACE Rev. 1.1 sections A+B) as a share of total employment (Source: Eurostat, ESA95 National Accounts)*
- 17-20. Activity rates: *labour force (employed and unemployed) as a share of total population in the corresponding age bracket (Source: Eurostat, EU LFS)*
21. Total unemployment in 1000s (Source: Eurostat, EU LFS)
- 22-23. Unemployment rates: *unemployed as a share of the labour force (employed and unemployed persons) in the corresponding age bracket (Source: Eurostat, EU LFS)*
24. Long-term unemployment rate: *persons unemployed for a duration of 12 months or more as a share of the labour force (Source: Eurostat, EU LFS)*
25. Youth unemployment ratio: *young unemployed (aged 15–24) as a share of the total population in the same age bracket (Source: Eurostat, EU LFS).*

Note: For indicators for which the ESA95 National Accounts are the main source, the split into male and female indicators is done using additionally EU LFS data.

2. MACRO ECONOMIC INDICATORS

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
European Union (27 countries)													
Real GDP	3.0	3.9	2.0	1.3	1.3	2.5	2.0	3.2	2.9	0.7	-4.2	1.0	1.7
Total employment	1.0	1.5	0.9	0.4	0.3	0.7	0.9	1.6	1.8	0.9	-1.8	-1.0	0.2
Labour productivity	2.0	2.3	1.0	0.9	1.0	1.8	1.0	1.5	1.1	-0.2	-2.4	2.0	1.4
Annual average hours worked	:	:	:	:	:	:	:	-0.2	0.0	-0.2	-1.7	:	:
Productivity per hour worked	:	:	:	:	:	:	:	1.7	1.1	-0.2	-0.8	:	:
Harmonized CPI	3.0	3.5	3.2	2.5	2.1	2.3	2.3	2.3	2.4	3.7	1.0	1.8	1.7
Price deflator GDP	2.1	3.2	2.1	2.5	0.3	2.4	2.3	2.4	2.9	0.4	-1.5	1.1	1.5
Nominal compensation per employee	4.0	5.9	3.3	2.9	1.0	2.7	2.6	2.6	3.3	0.7	-1.3	2.2	1.7
Real compensation per employee (GDP deflator)	2.0	2.6	1.1	0.4	0.7	0.3	0.4	0.3	0.4	0.3	0.2	1.1	0.2
Real compensation per employee (private consumption deflator)	2.2	1.7	1.3	1.3	1.2	0.3	0.2	0.2	0.6	0.1	1.3	0.6	0.1
Nominal unit labour costs	2.0	3.5	2.2	2.0	0.0	0.8	1.6	1.1	2.1	0.9	1.2	0.2	0.3
Real unit labour costs	0.0	0.3	0.1	-0.4	-0.3	-1.5	-0.6	-1.2	-0.7	0.5	2.7	-0.8	-1.2
European Union (15 countries)													
Real GDP	3.1	3.9	1.9	1.2	1.2	2.3	1.8	3.0	2.7	0.5	-4.3	0.9	1.6
Total employment	1.8	2.2	1.4	0.7	0.5	0.8	0.9	1.5	1.6	0.7	-1.8	-0.9	0.1
Labour productivity	1.2	1.7	0.5	0.5	0.7	1.5	0.9	1.5	1.0	-0.3	-2.5	1.9	1.4
Annual average hours worked	-0.3	-1.0	-0.5	-0.9	-0.5	0.1	-0.3	-0.3	-0.1	-0.2	-1.4	0.0	-0.1
Productivity per hour worked	1.5	2.7	1.0	1.4	1.2	1.4	1.2	1.8	1.1	-0.1	-1.1	1.9	1.5
Harmonized CPI	1.2	1.9	2.2	2.1	2.0	2.0	2.1	2.2	2.2	3.3	0.7	1.7	1.6
Price deflator GDP	2.2	2.9	1.7	2.4	0.6	2.3	1.8	2.1	2.4	-0.3	-0.9	1.0	1.4
Nominal compensation per employee	3.4	4.9	2.4	2.6	1.0	2.9	2.1	2.7	2.9	0.0	-0.7	1.8	1.6
Real compensation per employee (GDP deflator)	1.2	2.0	0.7	0.1	0.4	0.6	0.3	0.5	0.5	0.3	0.2	0.8	0.2
Real compensation per employee (private consumption deflator)	1.4	1.1	0.8	1.0	0.9	0.5	0.2	0.4	0.6	0.2	1.3	0.2	0.1
Nominal unit labour costs	2.2	3.2	1.9	2.1	0.3	1.3	1.3	1.2	1.8	0.3	1.8	-0.1	0.2
Real unit labour costs	0.0	0.3	0.2	-0.3	-0.3	-1.0	-0.5	-0.9	-0.5	0.6	2.8	-1.1	-1.2
United States													
Real GDP	4.8	4.1	1.1	1.8	2.5	3.6	3.1	2.7	1.9	0.0	-2.6	2.8	2.5
Total employment	1.5	2.5	0.0	-0.3	0.9	1.1	1.7	1.9	1.1	-0.4	-3.8	-0.4	0.6
Labour productivity	3.3	1.6	1.0	2.1	1.6	2.5	1.3	0.8	0.8	0.4	1.2	3.2	1.9
Annual average hours worked	0.4	-1.1	-1.3	-1.0	-1.5	0.1	-0.2	0.0	-0.4	-0.5	:	:	:
Productivity per hour worked	2.9	2.8	2.4	3.1	3.1	2.4	1.5	0.8	1.5	1.4	:	:	:
Harmonized CPI	2.2	3.4	2.8	1.6	2.3	2.7	3.4	3.2	2.8	3.8	-0.4	1.7	0.3
Price deflator GDP	1.5	2.2	2.3	1.6	2.2	2.8	3.3	3.3	2.9	2.2	0.9	0.2	0.1
Nominal compensation per employee	4.1	5.8	2.9	3.3	4.9	3.9	3.5	4.1	3.7	2.6	0.7	1.5	0.7
Real compensation per employee (GDP deflator)	2.6	3.6	0.7	1.6	2.7	1.1	0.2	0.8	0.8	0.4	-0.5	1.3	0.6
Real compensation per employee (private consumption deflator)	2.4	3.3	1.0	1.9	2.8	1.3	0.5	1.3	1.0	-0.8	0.5	0.4	0.3
Nominal unit labour costs	1.3	3.7	2.1	0.3	2.2	1.3	1.8	3.5	2.7	1.7	-0.7	-1.6	-1.1
Real unit labour costs	-0.2	1.5	-0.2	-1.3	0.0	-1.5	-1.5	0.2	-0.2	-0.5	-1.8	-1.8	-1.2
Japan													
Real GDP	-0.1	2.9	0.2	0.3	1.4	2.7	1.9	2.0	2.4	-1.2	-5.2	2.1	1.5
Total employment	-1.4	-0.6	-0.8	-1.6	-0.3	0.2	0.4	0.4	0.4	-0.3	-1.6	-1.0	-0.2
Labour productivity	1.3	3.5	0.9	1.9	1.7	2.5	1.5	1.6	2.0	-0.9	-3.7	3.1	1.7
Annual average hours worked	-1.7	0.6	-0.7	-0.6	0.0	-0.7	-0.6	0.5	0.0	-0.8	:	:	:
Productivity per hour worked	3.0	2.9	1.7	2.4	1.7	3.2	2.2	1.1	2.0	0.0	:	:	:
Harmonized CPI	-0.3	-0.7	-0.7	-0.9	-0.3	0.0	-0.3	0.3	0.0	1.4	-1.4	-0.5	-0.4
Price deflator GDP	-1.3	-1.7	-1.2	-1.5	-1.6	-1.1	-1.2	-0.9	-0.7	-0.8	-0.9	-1.2	0.8
Nominal compensation per employee	-0.7	0.5	-1.0	-1.7	-1.8	-0.6	0.5	0.2	-1.1	-0.4	-3.1	-0.1	0.9
Real compensation per employee (GDP deflator)	0.6	2.3	0.2	-0.1	-0.2	0.5	1.7	1.1	-0.3	0.4	-2.2	1.1	0.1
Real compensation per employee (private consumption deflator)	-0.2	1.7	0.1	-0.2	-0.9	0.1	1.3	0.4	-0.5	-0.9	-1.0	1.4	1.1
Nominal unit labour costs	-1.9	-2.9	-1.9	-3.4	-3.5	-3.0	-1.1	-1.4	-3.0	0.4	0.5	-3.1	-0.8
Real unit labour costs	-0.6	-1.2	-0.7	-1.9	-2.0	-1.9	0.2	-0.5	-2.3	1.3	1.5	-2.0	-1.5
Belgium													
Real GDP	3.5	3.7	0.8	1.4	0.8	3.2	1.7	2.7	2.9	1.0	-2.8	1.3	1.6
Total employment	1.4	2.0	1.4	-0.1	0.0	0.9	1.4	1.2	1.6	1.7	-0.4	-0.9	0.2
Labour productivity	2.1	1.6	-0.6	1.5	0.8	2.3	0.3	1.5	1.3	-0.7	-2.4	2.2	1.4
Annual average hours worked	0.1	-2.3	2.2	0.2	-0.3	-1.9	0.9	0.3	-0.2	0.3	-1.6	0.8	0.6
Productivity per hour worked	2.0	4.0	-2.7	1.3	1.1	4.2	-0.6	1.3	1.5	-1.1	-1.1	1.4	0.8
Harmonized CPI	1.1	2.7	2.4	1.6	1.5	1.9	2.5	2.3	1.8	4.5	0.0	1.6	1.6
Price deflator GDP	0.3	2.0	2.1	2.0	2.0	2.2	2.4	2.3	2.3	1.9	1.1	1.6	1.8
Nominal compensation per employee	3.5	2.1	3.7	3.8	1.8	1.7	1.8	3.3	3.4	3.6	1.8	1.6	2.1
Real compensation per employee (GDP deflator)	3.2	0.1	1.6	1.8	-0.2	-0.5	-0.6	1.0	1.1	1.7	0.7	0.0	0.3
Real compensation per employee (private consumption deflator)	3.1	-1.3	1.7	2.6	0.3	-0.6	-0.9	0.3	0.6	0.4	2.3	0.0	0.6
Nominal unit labour costs	1.4	0.4	4.3	2.3	1.0	-0.6	1.5	1.8	2.1	4.4	4.3	-0.5	0.8
Real unit labour costs	1.1	-1.5	2.2	0.3	-0.9	-2.7	-0.9	-0.5	-0.2	2.4	3.2	-2.1	-1.0

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bulgaria													
Real GDP	2.3	5.4	4.1	4.5	5.0	6.6	6.2	6.3	6.2	6.0	-5.0	0.0	2.7
Total employment	-4.3	-2.4	-0.8	0.2	3.0	2.6	2.7	3.3	2.8	3.3	-2.9	-1.2	0.6
Labour productivity	6.9	8.0	4.9	4.3	2.0	3.9	3.5	2.9	3.3	2.7	-2.2	1.2	2.0
Annual average hours worked	1.2	-1.8	0.7	0.0	-0.7	1.4	-0.3	-0.3	0.5	0.0	-0.1	0.1	0.1
Productivity per hour worked	5.7	9.9	4.1	4.3	2.7	2.5	3.8	3.2	2.8	2.7	-2.1	1.1	1.9
Harmonized CPI	2.6	10.3	7.4	5.8	2.3	6.1	6.0	7.4	7.6	12.0	2.5	2.3	2.7
Price deflator GDP	3.7	6.7	6.7	4.4	1.8	5.1	3.8	8.5	7.9	11.4	4.6	1.5	2.1
Nominal compensation per employee	6.7	8.3	14.9	5.9	5.0	4.9	5.9	7.4	17.9	19.3	8.7	4.7	4.0
Real compensation per employee (GDP deflator)	2.9	1.5	7.7	1.5	3.2	-0.2	2.1	-1.0	9.4	7.1	3.9	3.2	1.8
Real compensation per employee (private consumption deflator)	4.5	3.6	8.4	1.7	4.8	0.5	0.7	1.6	10.5	7.4	6.9	3.2	2.0
Nominal unit labour costs	-0.2	0.3	9.6	1.6	3.0	1.0	2.4	4.4	14.2	16.2	11.1	3.5	1.9
Real unit labour costs	-3.8	-6.0	2.7	-2.7	1.2	-4.0	-1.3	-3.8	5.9	4.3	6.2	2.0	-0.2
Czech Republic													
Real GDP	1.3	3.6	2.5	1.9	3.6	4.5	6.3	6.8	6.1	2.5	-4.1	1.6	2.4
Total employment	-3.4	-0.2	0.5	0.6	-1.3	0.3	1.0	1.9	2.7	1.2	-1.2	-1.9	0.4
Labour productivity	4.9	3.8	2.0	1.3	5.0	4.1	5.2	4.8	3.4	1.2	-3.0	3.6	2.1
Annual average hours worked	1.6	-0.1	-4.4	-1.1	0.1	0.4	0.6	-0.2	-0.6	0.7	-3.6	-0.4	-0.1
Productivity per hour worked	3.2	3.9	6.7	2.4	4.9	3.7	4.6	5.0	4.0	0.5	0.7	4.0	2.2
Harmonized CPI	1.8	3.9	4.5	1.4	-0.1	2.6	1.6	2.1	3.0	6.3	0.6	1.0	1.3
Price deflator GDP	2.8	1.5	4.9	2.8	0.9	4.5	-0.3	1.1	3.4	1.8	2.6	0.1	0.6
Nominal compensation per employee	8.4	6.2	7.9	7.4	8.8	5.7	4.9	5.9	6.3	6.3	0.5	2.3	3.7
Real compensation per employee (GDP deflator)	5.4	4.6	2.9	4.4	7.8	1.1	5.2	4.8	2.9	4.4	-2.1	2.2	3.0
Real compensation per employee (private consumption deflator)	6.3	3.0	3.8	6.1	9.3	2.3	4.1	4.4	3.4	1.3	0.1	1.6	2.5
Nominal unit labour costs	3.3	2.3	5.8	6.0	3.6	1.5	-0.3	1.1	2.9	5.1	3.6	-1.2	1.6
Real unit labour costs	0.4	0.7	0.9	3.1	2.7	-2.9	0.0	0.0	-0.5	3.2	1.0	-1.3	0.9
Denmark													
Real GDP	2.6	3.5	0.7	0.5	0.4	2.3	2.4	3.4	1.7	-0.9	-4.9	1.6	1.8
Total employment	0.8	0.5	0.9	0.0	-1.1	-0.6	1.0	2.1	2.9	1.9	-3.4	-1.9	-0.1
Labour productivity	1.7	3.0	-0.2	0.4	1.5	2.9	1.4	1.3	-1.2	-2.7	-1.6	3.6	1.9
Annual average hours worked	0.7	1.0	0.5	-0.4	-0.2	0.2	0.0	0.4	-0.9	-0.3	-1.0	-0.4	0.0
Productivity per hour worked	0.9	2.0	-0.7	0.8	1.7	2.7	1.4	0.9	-0.3	-2.5	-0.6	4.0	1.9
Harmonized CPI	2.1	2.7	2.3	2.4	2.0	0.9	1.7	1.9	1.7	3.6	1.1	2.3	1.5
Price deflator GDP	1.7	3.0	2.5	2.3	1.6	2.3	2.9	2.1	1.9	3.6	0.4	1.1	1.6
Nominal compensation per employee	3.9	3.5	4.2	3.8	3.7	3.3	3.6	3.5	3.7	3.6	3.4	1.8	1.8
Real compensation per employee (GDP deflator)	2.2	0.5	1.7	1.4	2.0	1.0	0.7	1.4	1.7	0.0	3.0	0.7	0.2
Real compensation per employee (private consumption deflator)	2.0	0.8	1.8	2.0	2.4	2.1	2.1	1.5	1.6	0.4	2.0	-0.2	0.0
Nominal unit labour costs	2.1	0.5	4.4	3.3	2.2	0.4	2.2	2.2	4.9	6.5	5.1	-1.7	-0.1
Real unit labour costs	0.5	-2.4	1.9	1.0	0.6	-1.9	-0.7	0.1	2.9	2.8	4.6	-2.8	-1.7
Germany													
Real GDP	2.0	3.2	1.2	0.0	-0.2	1.2	0.8	3.2	2.5	1.3	-4.9	1.2	1.6
Total employment	1.4	1.9	0.4	-0.6	-0.9	0.4	-0.1	0.6	1.7	1.4	0.0	-0.3	-0.1
Labour productivity	0.6	1.3	0.8	0.6	0.7	0.8	0.9	2.5	0.8	-0.1	-4.9	1.6	1.7
Annual average hours worked	-0.8	-1.3	-1.0	-0.9	-0.4	0.2	-0.5	-0.3	0.1	-0.1	-2.8	0.8	0.2
Productivity per hour worked	1.4	2.6	1.8	1.5	1.2	0.6	1.4	2.9	0.7	0.0	-2.2	0.7	1.6
Harmonized CPI	0.6	1.4	1.9	1.4	1.0	1.8	1.9	1.8	2.3	2.8	0.2	1.3	1.5
Price deflator GDP	0.4	-0.7	1.2	1.4	1.2	1.0	0.7	0.5	1.9	1.5	1.5	0.2	0.9
Nominal compensation per employee	1.1	1.9	1.6	1.3	1.6	0.4	-0.1	1.0	1.0	2.1	-0.1	0.7	1.1
Real compensation per employee (GDP deflator)	0.7	2.6	0.4	-0.1	0.4	-0.6	-0.8	0.5	-1.0	0.6	-1.6	0.5	0.2
Real compensation per employee (private consumption deflator)	0.8	1.0	-0.2	0.2	0.0	-0.9	-1.5	0.0	-0.8	0.0	-0.3	-0.3	-0.1
Nominal unit labour costs	0.4	0.6	0.8	0.8	0.8	-0.4	-1.0	-1.5	0.2	2.2	5.1	-0.9	-0.7
Real unit labour costs	0.1	1.3	-0.4	-0.6	-0.3	-1.4	-1.6	-2.0	-1.7	0.7	3.5	-1.1	-1.5
Estonia													
Real GDP	-0.3	10.0	7.5	7.9	7.6	7.2	9.4	10.0	7.2	-3.6	-14.1	0.9	3.8
Total employment	-4.4	-1.5	0.8	1.3	1.5	0.0	2.0	5.4	0.8	0.2	-9.9	-2.6	1.5
Labour productivity	4.3	11.6	6.6	6.6	6.0	7.3	7.3	4.3	6.4	-3.7	-4.6	3.7	2.2
Annual average hours worked	:	:	-0.4	0.2	0.1	0.6	0.7	-0.5	-0.1	-1.5	-7.0	2.8	2.6
Productivity per hour worked	:	:	7.1	6.3	5.9	6.7	6.5	4.8	6.5	-2.3	2.5	0.8	-0.4
Harmonized CPI	3.1	3.9	5.6	3.6	1.4	3.0	4.1	4.4	6.7	10.6	0.2	1.3	2.0
Price deflator GDP	6.8	4.5	5.3	3.3	4.2	3.6	5.5	7.6	10.2	6.7	-0.6	-1.0	1.9
Nominal compensation per employee	8.5	14.5	9.6	9.1	11.6	12.2	10.8	14.2	24.8	9.8	-3.0	-3.3	1.3
Real compensation per employee (GDP deflator)	1.6	9.5	4.2	5.6	7.1	8.3	5.0	6.1	13.3	2.9	-2.4	-2.2	-0.6
Real compensation per employee (private consumption deflator)	4.1	10.5	3.2	6.2	9.4	10.0	6.9	8.4	16.2	0.6	-2.2	-4.1	-0.8
Nominal unit labour costs	4.0	2.5	2.8	2.4	5.3	4.6	3.3	9.4	17.3	14.1	1.7	-6.7	-0.9
Real unit labour costs	-2.7	-1.9	-2.3	-0.9	1.0	1.0	-2.1	1.7	6.4	6.9	2.3	-5.7	-2.8

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Ireland													
Real GDP	10.7	9.4	5.7	6.5	4.4	4.6	6.2	5.4	6.0	-3.0	-7.1	-0.9	3.0
Total employment	6.5	4.5	3.1	1.6	1.9	3.4	4.9	4.3	3.7	-1.1	-8.2	-3.5	0.4
Labour productivity	3.9	4.7	2.6	4.8	2.5	1.2	1.2	1.0	2.3	-1.9	1.2	2.6	2.6
Annual average hours worked	-0.7	0.4	-1.3	-1.1	-0.8	-0.2	0.2	-0.5	-0.9	-1.8	-0.8	-0.5	-0.2
Productivity per hour worked	4.7	4.3	3.9	6.0	3.3	1.3	1.0	1.4	3.2	-0.2	1.9	3.2	2.8
Harmonized CPI	2.5	5.3	4.0	4.7	4.0	2.3	2.2	2.7	2.9	3.1	-1.7	-1.3	0.8
Price deflator GDP	4.0	6.0	5.5	4.6	2.8	2.0	2.4	3.5	1.3	-1.2	-3.2	-1.7	0.8
Nominal compensation per employee	4.3	8.0	7.5	5.2	5.7	5.4	6.1	4.5	4.5	3.9	-1.6	-2.5	0.8
Real compensation per employee (GDP deflator)	0.3	1.9	1.9	0.5	2.9	3.3	3.6	1.0	3.2	5.1	1.6	-0.8	0.0
Real compensation per employee (private consumption deflator)	1.1	2.7	3.0	-0.2	1.6	3.5	4.1	2.0	1.0	1.2	2.2	-1.1	-0.1
Nominal unit labour costs	0.4	3.1	4.8	0.3	3.2	4.1	4.8	3.5	2.2	5.9	-2.7	-5.0	-1.7
Real unit labour costs	-3.5	-2.7	-0.6	-4.1	0.4	2.1	2.4	0.0	0.9	7.2	0.5	-3.4	-2.5
Greece													
Real GDP	3.4	4.5	4.2	3.4	5.9	4.6	2.2	4.5	4.5	2.0	-2.0	-3.0	-0.5
Total employment	0.3	0.5	0.1	2.3	1.2	2.2	0.9	2.0	1.4	0.1	-1.2	-1.9	-0.8
Labour productivity	3.1	4.0	4.1	1.2	4.7	2.4	1.3	2.4	3.1	1.9	-0.8	-1.1	0.3
Annual average hours worked	1.9	0.1	0.0	-0.6	-0.3	-1.1	0.2	3.0	-1.5	0.0	0.1	0.5	0.5
Productivity per hour worked	1.2	4.0	4.0	1.7	5.0	3.4	1.1	-0.5	4.6	1.9	-1.0	-1.6	-0.2
Harmonized CPI	2.1	2.9	3.7	3.9	3.4	3.0	3.5	3.3	3.0	4.2	1.3	3.1	2.1
Price deflator GDP	3.0	3.4	3.1	3.4	3.9	3.0	2.8	3.1	3.0	3.5	1.3	2.9	1.7
Nominal compensation per employee	:	:	3.7	11.4	6.3	4.1	4.3	3.1	6.6	5.9	5.5	-0.8	0.4
Real compensation per employee (GDP deflator)	:	:	0.6	7.8	2.3	1.0	1.4	0.1	3.6	2.3	4.1	-3.6	-1.3
Real compensation per employee (private consumption deflator)	:	:	1.0	8.6	2.8	1.1	1.0	-0.2	3.5	1.7	4.2	-4.1	-1.4
Nominal unit labour costs	:	:	-0.3	10.2	1.5	1.6	3.0	0.7	3.5	3.9	6.3	0.3	0.1
Real unit labour costs	:	:	-3.4	6.5	-2.3	-1.3	0.1	-2.3	0.5	0.3	5.0	-2.6	-1.6
Spain													
Real GDP	4.7	5.0	3.6	2.7	3.1	3.3	3.6	4.0	3.6	0.9	-3.6	-0.4	0.8
Total employment	4.6	5.1	3.2	2.4	3.1	3.5	4.1	3.9	3.0	-0.6	-6.7	-2.5	-0.1
Labour productivity	0.2	0.0	0.5	0.3	0.0	-0.3	-0.5	0.1	0.5	1.5	3.2	2.1	0.9
Annual average hours worked	0.0	-0.1	-0.2	-0.3	-0.9	-0.9	-1.3	-0.7	-1.2	0.7	-1.7	-0.4	-0.4
Productivity per hour worked	0.1	0.1	0.7	0.6	0.9	0.7	0.8	0.8	1.7	0.8	5.0	2.5	1.3
Harmonized CPI	2.2	3.5	2.8	3.6	3.1	3.1	3.4	3.6	2.8	4.1	-0.2	1.6	1.6
Price deflator GDP	2.6	3.5	4.2	4.3	4.1	4.0	4.3	4.1	3.3	2.5	0.2	0.3	1.1
Nominal compensation per employee	2.1	2.8	3.7	3.4	2.8	2.2	2.9	3.3	4.3	6.0	3.6	1.1	1.2
Real compensation per employee (GDP deflator)	-0.5	-0.6	-0.5	-0.9	-1.3	-1.8	-1.4	-0.8	1.0	3.3	3.4	0.8	0.1
Real compensation per employee (private consumption deflator)	-0.2	-0.9	0.2	0.6	-0.3	-1.3	-0.5	-0.3	1.0	2.2	4.3	-0.4	-0.4
Nominal unit labour costs	1.9	2.8	3.2	3.1	2.8	2.5	3.3	3.2	3.7	4.4	0.3	-1.0	0.3
Real unit labour costs	-0.7	-0.6	-1.0	-1.2	-1.3	-1.5	-0.9	-0.9	0.5	1.8	0.1	-1.3	-0.7
France													
Real GDP	3.3	3.9	1.9	1.0	1.1	2.5	1.9	2.2	2.4	0.2	-2.6	1.3	1.5
Total employment	2.0	2.7	1.8	0.6	0.1	0.1	0.6	1.0	1.4	0.6	-1.2	-0.7	0.3
Labour productivity	1.3	1.2	0.1	0.4	1.0	2.4	1.3	1.2	0.9	-0.4	-1.4	2.0	1.2
Annual average hours worked	-0.4	-2.4	-0.8	-2.6	-0.3	1.9	-0.3	-1.3	1.3	0.3	-0.1	0.0	0.0
Productivity per hour worked	1.7	3.7	0.9	3.1	1.3	0.5	1.6	2.6	-0.4	-0.6	-1.3	2.0	1.2
Harmonized CPI	0.6	1.8	1.8	1.9	2.2	2.3	1.9	1.9	1.6	3.2	0.1	1.4	1.6
Price deflator GDP	0.0	1.4	2.0	2.4	1.9	1.6	2.0	2.4	2.5	2.6	0.5	0.7	1.5
Nominal compensation per employee	2.3	2.4	2.4	3.4	2.8	3.4	3.2	3.3	2.4	2.5	1.5	1.6	1.7
Real compensation per employee (GDP deflator)	2.2	1.0	0.4	1.0	0.9	1.8	1.1	0.9	0.0	-0.1	1.0	0.8	0.2
Real compensation per employee (private consumption deflator)	2.8	0.1	0.6	2.4	0.9	1.5	1.4	1.2	0.4	-0.3	2.0	0.3	0.2
Nominal unit labour costs	1.0	1.2	2.3	3.0	1.8	1.1	1.8	2.0	1.5	2.9	3.0	-0.4	0.5
Real unit labour costs	0.9	-0.2	0.3	0.6	-0.1	-0.5	-0.2	-0.3	-0.9	0.3	2.4	-1.2	-1.0
Italy													
Real GDP	1.5	3.7	1.8	0.5	0.0	1.5	0.7	2.0	1.5	-1.3	-5.0	0.8	1.4
Total employment	1.1	1.9	2.0	1.7	1.5	0.4	0.6	2.0	1.3	0.3	-1.7	-1.0	0.2
Labour productivity	0.4	1.7	-0.2	-1.2	-1.5	1.1	0.1	0.1	0.2	-1.6	-3.4	1.9	1.2
Annual average hours worked	-0.2	-0.8	-1.0	-0.7	-0.3	0.0	-0.4	-0.2	0.1	-0.4	-1.4	0.2	0.1
Productivity per hour worked	0.6	2.5	0.8	-0.6	-1.2	1.1	0.5	0.3	0.1	-1.2	-2.0	1.7	1.1
Harmonized CPI	1.7	2.6	2.3	2.6	2.8	2.3	2.2	2.2	2.0	3.5	0.8	1.8	2.0
Price deflator GDP	1.8	1.9	3.0	3.3	3.1	2.6	2.1	1.8	2.6	2.8	2.1	1.3	1.9
Nominal compensation per employee	2.0	2.2	2.9	2.2	2.4	3.3	2.9	2.2	2.1	2.8	0.7	2.4	2.0
Real compensation per employee (GDP deflator)	0.2	0.3	-0.1	-1.0	-0.6	0.6	0.8	0.3	-0.4	0.1	-1.4	1.1	0.1
Real compensation per employee (private consumption deflator)	0.2	-1.1	0.3	-0.6	-0.3	0.7	0.6	-0.5	-0.2	-0.3	0.9	0.5	0.0
Nominal unit labour costs	1.6	0.5	3.1	3.5	4.0	2.2	2.8	2.1	1.9	4.5	4.3	0.5	0.8
Real unit labour costs	-0.2	-1.4	0.1	0.2	0.9	-0.5	0.7	0.3	-0.6	1.7	2.1	-0.8	-1.1

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Cyprus													
Real GDP	4.8	5.0	4.0	2.1	1.9	4.2	3.9	4.1	5.1	3.6	-1.7	-0.4	1.3
Total employment	1.9	1.7	2.2	2.1	3.8	3.8	3.6	1.8	3.2	2.8	-0.7	-0.7	-0.2
Labour productivity	2.9	3.3	1.8	0.0	-1.8	0.4	0.3	2.3	1.8	0.8	-1.0	0.3	1.5
Annual average hours worked	0.6	0.9	1.3	-1.4	-0.4	-1.9	-1.6	0.9	-0.3	-0.5	-0.8	0.7	2.0
Productivity per hour worked	2.3	2.4	0.5	1.4	-1.4	2.4	1.9	1.4	2.1	1.3	-0.2	-0.4	-0.5
Harmonized CPI	1.1	4.9	2.0	2.8	4.0	1.9	2.0	2.2	2.2	4.4	0.2	2.7	2.5
Price deflator GDP	2.4	3.8	3.4	1.2	5.1	3.2	2.4	3.0	4.6	4.8	0.0	2.1	2.4
Nominal compensation per employee	4.5	6.1	3.7	4.8	7.7	1.9	1.8	2.9	3.0	3.5	5.2	3.2	3.6
Real compensation per employee (GDP deflator)	2.1	2.1	0.3	3.6	2.5	-1.3	-0.6	0.0	-1.6	-1.3	5.2	1.1	1.2
Real compensation per employee (private consumption deflator)	2.3	2.1	1.5	2.4	3.5	0.3	-0.6	0.8	-0.7	-1.3	5.0	0.2	0.8
Nominal unit labour costs	1.5	2.7	1.9	4.8	9.6	1.5	1.4	0.6	1.1	2.7	6.3	2.9	2.1
Real unit labour costs	-0.8	-1.1	-1.4	3.6	4.3	-1.7	-0.9	-2.3	-3.4	-2.1	6.3	0.8	-0.3
Latvia													
Real GDP	3.3	6.9	8.0	6.5	7.2	8.7	10.6	12.2	10.0	-4.2	-18.0	-3.5	3.3
Total employment	-1.8	-3.2	1.2	2.9	1.9	1.2	1.6	4.9	3.6	0.9	-13.6	-7.2	0.8
Labour productivity	5.1	10.4	6.8	3.4	5.1	7.4	8.9	7.0	6.2	-5.1	-5.1	4.0	2.5
Annual average hours worked	0.2	6.7	-0.4	-2.0	-0.6	-1.6	1.7	-0.9	-1.3	-4.3	-2.9	0.0	1.0
Productivity per hour worked	4.9	3.5	7.2	5.5	5.8	9.2	7.1	8.0	7.5	-0.9	-2.2	4.0	1.5
Harmonized CPI	2.1	2.6	2.5	2.0	2.9	6.2	6.9	6.6	10.1	15.3	3.3	-3.2	-0.7
Price deflator GDP	4.0	4.2	1.7	3.6	3.6	7.0	10.2	9.9	20.3	14.4	-1.5	-6.3	-1.0
Nominal compensation per employee	7.5	7.4	4.3	2.8	11.0	14.5	25.1	23.2	35.1	15.7	-11.8	-8.0	1.0
Real compensation per employee (GDP deflator)	3.4	3.1	2.6	-0.8	7.2	7.0	13.5	12.2	12.3	1.2	-10.4	-1.8	2.0
Real compensation per employee (private consumption deflator)	5.4	4.0	2.1	0.4	7.9	6.9	15.0	16.3	22.7	-0.9	-15.4	-4.9	1.6
Nominal unit labour costs	2.3	-2.7	-2.3	-0.6	5.6	6.6	14.8	15.2	27.2	22.0	-7.1	-11.5	-1.5
Real unit labour costs	-1.7	-6.6	-3.9	-4.1	2.0	-0.4	4.2	4.9	5.8	6.6	-5.7	-5.6	-0.5
Lithuania													
Real GDP	-1.1	3.3	6.7	6.9	10.2	7.4	7.8	7.8	9.8	2.8	-14.8	-0.6	3.2
Total employment	-2.2	-4.0	-3.8	3.6	2.2	0.0	2.5	1.8	2.8	-0.5	-6.9	-3.6	0.2
Labour productivity	1.2	7.5	11.0	3.1	7.8	7.4	5.2	5.9	6.9	3.3	-8.5	3.2	3.0
Annual average hours worked	-3.0	6.6	-0.8	-1.6	-0.9	1.3	3.4	-0.8	1.1	1.6	-1.3	-2.1	0.0
Productivity per hour worked	4.3	0.8	11.9	4.8	8.8	6.0	1.7	6.8	5.7	1.6	-7.3	5.4	3.0
Harmonized CPI	1.5	1.1	1.6	0.3	-1.1	1.2	2.7	3.8	5.8	11.1	4.2	-0.1	1.4
Price deflator GDP	-1.5	0.9	-0.4	0.2	-0.8	2.5	6.6	6.5	8.5	9.7	-2.9	-2.0	1.2
Nominal compensation per employee	2.6	-0.7	7.1	5.0	8.9	10.9	11.5	16.7	13.9	12.9	-7.6	-2.4	1.5
Real compensation per employee (GDP deflator)	4.1	-1.7	7.5	4.8	9.8	8.2	4.6	9.5	4.9	2.9	-4.9	-0.4	0.3
Real compensation per employee (private consumption deflator)	3.9	1.0	4.6	5.1	9.9	11.2	9.7	12.1	7.0	2.9	-11.6	-2.9	0.2
Nominal unit labour costs	1.4	-7.7	-3.5	1.8	1.0	3.3	6.0	10.1	6.5	9.3	0.9	-5.5	-1.4
Real unit labour costs	2.9	-8.5	-3.2	1.6	1.8	0.8	-0.6	3.4	-1.8	-0.3	3.9	-3.5	-2.6
Luxembourg													
Real GDP	8.4	8.4	2.5	4.1	1.5	4.4	5.4	5.6	6.5	0.0	-4.1	2.0	2.4
Total employment	5.0	5.6	5.5	3.2	1.8	2.2	2.9	3.6	4.4	4.7	0.9	0.0	0.7
Labour productivity	3.3	2.7	-2.9	0.8	-0.3	2.1	2.5	1.9	2.0	-4.5	-5.0	1.9	1.7
Annual average hours worked	-0.2	-0.5	-0.9	-0.6	-1.6	-0.1	-1.2	-0.4	0.5	-0.3	-3.0	0.0	1.0
Productivity per hour worked	3.5	3.2	-2.0	1.4	1.3	2.2	3.7	2.3	1.4	-4.2	-2.0	1.9	0.7
Harmonized CPI	1.0	3.8	2.4	2.1	2.5	3.2	3.8	3.0	2.7	4.1	0.0	2.6	2.0
Price deflator GDP	5.3	2.0	0.1	2.1	6.0	1.8	4.6	6.8	3.0	5.0	-0.3	2.8	3.0
Nominal compensation per employee	4.0	5.3	3.5	3.1	1.1	3.3	4.6	3.3	3.6	2.0	1.7	2.5	2.5
Real compensation per employee (GDP deflator)	-1.3	3.3	3.4	0.9	-4.6	1.5	0.0	-3.3	0.5	-2.8	2.0	-0.3	-0.5
Real compensation per employee (private consumption deflator)	1.5	1.3	1.5	2.5	-1.0	0.9	1.7	1.1	1.6	-1.6	1.7	0.4	0.6
Nominal unit labour costs	0.7	2.5	6.5	2.2	1.4	1.2	2.1	1.4	1.6	6.8	7.0	0.5	0.7
Real unit labour costs	-4.4	0.5	6.4	0.1	-4.4	-0.6	-2.4	-5.0	-1.4	1.7	7.3	-2.2	-2.2
Hungary													
Real GDP	4.2	4.9	4.1	4.4	4.3	4.9	3.5	4.0	1.0	0.6	-6.3	0.0	2.8
Total employment	2.7	1.0	-0.4	-0.2	0.1	-1.4	-0.2	0.6	-0.3	-1.3	-2.8	-0.9	0.8
Labour productivity	1.5	3.9	4.6	4.6	4.2	6.4	3.8	3.3	1.3	1.9	-3.6	0.9	2.0
Annual average hours worked	0.8	0.0	-2.1	0.5	-1.3	0.7	0.0	-0.2	-0.2	0.0	-0.9	-0.2	0.0
Productivity per hour worked	0.6	4.2	6.9	4.1	5.6	5.7	3.8	3.6	1.5	1.9	-2.7	1.1	2.0
Harmonized CPI	10.0	10.0	9.1	5.2	4.7	6.8	3.5	4.0	7.9	6.0	4.0	4.6	2.8
Price deflator GDP	6.9	9.2	10.0	7.9	4.8	5.4	2.1	3.9	5.9	3.8	4.9	2.6	2.2
Nominal compensation per employee	6.5	19.1	11.6	13.7	9.9	10.9	7.1	5.3	6.7	6.5	-1.0	-0.3	3.7
Real compensation per employee (GDP deflator)	-0.4	9.1	1.4	5.4	4.8	5.2	4.9	1.4	0.8	2.6	-5.6	-2.8	1.4
Real compensation per employee (private consumption deflator)	-3.0	8.7	3.3	9.6	5.7	6.2	3.2	1.9	0.5	0.9	-5.2	-4.3	1.4
Nominal unit labour costs	5.0	14.7	6.7	8.7	5.4	4.3	3.2	1.9	5.4	4.5	2.7	-1.2	1.7
Real unit labour costs	-1.8	5.0	-3.0	0.8	0.6	-1.1	1.1	-1.9	-0.5	0.7	-2.1	-3.6	-0.6

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Malta													
Real GDP	:	:	-1.6	2.6	-0.3	0.7	3.9	3.6	3.8	1.7	-1.5	1.1	1.7
Total employment	:	:	1.8	0.6	1.0	-0.7	1.5	1.3	3.2	2.6	-0.6	0.3	0.7
Labour productivity	:	:	-3.3	2.0	-1.3	1.4	2.3	2.3	0.6	-0.9	-0.9	0.8	1.0
Annual average hours worked	:	:	-16.0	15.9	-3.6	3.7	-0.7	-1.5	1.0	0.3	-0.2	0.2	0.2
Productivity per hour worked	:	:	15.1	-12.0	2.4	-2.3	3.1	3.8	-0.3	-1.2	-0.7	0.6	0.7
Harmonized CPI	2.3	3.0	2.5	2.6	1.9	2.7	2.5	2.6	0.7	4.7	1.8	2.0	2.1
Price deflator GDP	:	:	3.3	3.2	3.0	1.7	2.5	3.1	2.9	2.2	2.3	1.8	2.1
Nominal compensation per employee	:	:	5.5	3.1	4.5	1.2	2.2	3.5	1.9	3.8	1.6	2.2	2.3
Real compensation per employee (GDP deflator)	:	:	2.2	-0.1	1.5	-0.5	-0.2	0.4	-0.9	1.6	-0.6	0.4	0.2
Real compensation per employee (private consumption deflator)	:	:	2.9	1.3	3.7	-1.1	-0.3	1.2	0.3	0.7	1.2	0.2	0.2
Nominal unit labour costs	:	:	9.0	1.0	6.0	-0.3	0.0	1.2	1.3	4.7	2.5	1.4	1.3
Real unit labour costs	:	:	5.6	-2.1	2.9	-1.9	-2.5	-1.9	-1.5	2.5	0.2	-0.3	-0.8
Netherlands													
Real GDP	4.7	3.9	1.9	0.1	0.3	2.2	2.0	3.4	3.9	1.9	-3.9	1.3	1.8
Total employment	2.6	2.2	2.1	0.5	-0.5	-0.9	0.5	1.7	2.5	1.4	-1.1	-1.6	-0.1
Labour productivity	2.1	1.7	-0.1	-0.4	0.8	3.1	1.5	1.7	1.3	0.4	-2.8	3.0	1.9
Annual average hours worked	-0.2	-0.1	-0.8	-1.1	-0.5	-0.1	-0.4	0.1	-0.5	-0.3	0.1	-0.8	-0.3
Productivity per hour worked	2.3	1.8	0.7	0.7	1.4	3.3	2.0	1.6	1.9	0.8	-2.9	3.8	2.2
Harmonized CPI	2.0	2.3	5.1	3.9	2.2	1.4	1.5	1.7	1.6	2.2	1.0	1.3	1.5
Price deflator GDP	1.8	4.1	5.1	3.8	2.2	0.7	2.4	1.8	1.8	2.4	-0.2	1.0	1.6
Nominal compensation per employee	3.4	4.6	4.9	4.3	3.4	3.4	1.1	2.3	3.0	3.4	2.2	1.8	1.6
Real compensation per employee (GDP deflator)	1.6	0.5	-0.2	0.5	1.1	2.6	-1.3	0.5	1.1	1.0	2.4	0.9	0.0
Real compensation per employee (private consumption deflator)	1.4	0.7	0.4	1.3	1.0	2.4	-1.0	0.1	1.4	1.3	2.8	0.1	0.1
Nominal unit labour costs	1.3	2.9	5.0	4.8	2.5	0.2	-0.4	0.6	1.6	2.9	5.2	-1.1	-0.3
Real unit labour costs	-0.5	-1.2	-0.1	0.9	0.3	-0.5	-2.8	-1.1	-0.2	0.6	5.3	-2.1	-1.9
Austria													
Real GDP	3.3	3.7	0.5	1.6	0.8	2.5	2.5	3.6	3.7	2.2	-3.9	1.3	1.6
Total employment	1.5	0.9	0.7	-0.1	-0.1	1.4	1.5	1.4	1.8	1.8	-0.9	-0.1	0.2
Labour productivity	1.8	2.7	-0.2	1.7	0.9	1.1	1.0	2.2	1.9	0.4	-3.0	1.5	1.4
Annual average hours worked	-0.5	0.5	-0.1	-0.2	0.7	-0.7	-1.0	-0.5	-0.7	-0.3	-2.3	-1.5	-0.2
Productivity per hour worked	2.3	2.2	-0.1	1.9	0.2	1.8	2.0	2.7	2.6	0.7	-0.7	3.0	1.6
Harmonized CPI	0.5	2.0	2.3	1.7	1.3	2.0	2.1	1.7	2.2	3.2	0.4	1.3	1.5
Price deflator GDP	0.4	1.1	1.9	1.3	1.2	1.7	2.1	1.8	2.1	1.9	0.8	0.6	1.7
Nominal compensation per employee	1.8	2.2	1.2	1.9	2.4	0.9	2.4	3.0	3.1	3.2	1.8	1.6	2.1
Real compensation per employee (GDP deflator)	1.4	1.0	-0.6	0.6	1.1	-0.7	0.3	1.2	1.0	1.3	1.0	1.0	0.3
Real compensation per employee (private consumption deflator)	1.4	-0.4	-0.6	1.3	0.7	-1.0	-0.2	0.8	0.4	0.7	2.6	0.3	0.7
Nominal unit labour costs	0.0	-0.5	1.4	0.2	1.5	-0.2	1.4	0.8	1.1	2.8	5.0	0.1	0.7
Real unit labour costs	-0.4	-1.6	-0.4	-1.1	0.2	-1.8	-0.7	-1.0	-0.9	0.9	4.2	-0.5	-1.0
Poland													
Real GDP	4.5	4.3	1.2	1.4	3.9	5.3	3.6	6.2	6.8	5.0	1.7	2.7	3.3
Total employment *	-3.9	-1.6	-2.2	-3.0	-1.2	1.2	2.2	3.2	4.4	3.8	0.4	0.0	0.6
Labour productivity *	8.8	5.9	3.5	4.6	5.1	4.1	1.4	2.9	2.3	1.2	1.3	2.7	2.7
Annual average hours worked	-0.4	-0.7	0.1	-0.3	0.3	-0.1	-0.2	0.0	0.0	-0.4	-4.7	-0.1	-0.1
Productivity per hour worked	9.3	6.6	3.4	4.9	4.8	4.2	1.5	2.9	2.3	1.6	6.3	2.8	2.8
Harmonized CPI	7.2	10.1	5.3	1.9	0.7	3.6	2.2	1.3	2.6	4.2	4.0	2.4	2.6
Price deflator GDP	6.0	7.3	3.5	2.2	0.4	4.1	2.6	1.5	4.0	3.0	3.7	2.2	2.4
Nominal compensation per employee *	13.7	10.8	10.2	2.3	1.6	1.9	1.7	1.8	4.9	8.1	3.7	3.2	4.4
Real compensation per employee (GDP deflator) *	7.3	3.3	6.5	0.0	1.2	-2.1	-0.9	0.3	0.9	5.0	0.0	1.0	2.0
Real compensation per employee (private consumption deflator) *	7.2	0.7	6.2	-1.0	1.2	-1.1	-0.4	0.6	2.4	3.8	1.0	0.8	1.8
Nominal unit labour costs *	4.5	4.6	6.5	-2.2	-3.3	-2.1	0.3	-1.1	2.6	6.9	2.4	0.5	1.7
Real unit labour costs *	-1.4	-2.5	2.9	-4.4	-3.7	-6.0	-2.3	-2.5	-1.3	3.8	-1.2	-1.7	-0.7
*: 2005 break in series.													
Portugal													
Real GDP	4.1	3.9	2.0	0.7	-0.9	1.6	0.8	1.4	2.4	0.0	-2.6	0.5	0.7
Total employment	1.4	2.1	1.8	0.6	-0.6	-0.1	-0.3	0.5	0.0	0.4	-2.5	-0.5	0.0
Labour productivity	2.7	1.8	0.1	0.1	-0.3	1.6	1.1	0.9	2.4	-0.5	0.0	1.0	0.7
Annual average hours worked	0.7	-2.6	-0.8	-0.5	-0.6	0.3	0.0	-0.5	-0.8	-0.1	0.6	-0.3	-0.4
Productivity per hour worked	1.9	4.5	1.0	0.6	0.2	1.4	1.1	1.5	3.3	-0.4	-0.6	1.3	1.1
Harmonized CPI	2.2	2.8	4.4	3.7	3.3	2.5	2.1	3.0	2.4	2.7	-0.9	1.0	1.4
Price deflator GDP	3.3	3.2	3.6	3.7	3.0	2.5	2.5	2.8	2.8	1.9	0.1	1.1	1.6
Nominal compensation per employee	5.1	6.3	4.0	3.4	3.5	2.6	4.7	1.8	3.6	2.7	3.3	1.6	1.6
Real compensation per employee (GDP deflator)	1.7	3.0	0.5	-0.4	0.5	0.2	2.1	-0.9	0.8	0.7	3.2	0.6	0.1
Real compensation per employee (private consumption deflator)	2.8	2.7	0.5	0.6	0.5	0.1	1.9	-1.2	0.6	-0.1	5.7	0.5	0.1
Nominal unit labour costs	2.4	4.4	3.9	3.2	3.9	1.0	3.6	0.9	1.2	3.1	3.3	0.6	0.9
Real unit labour costs	-0.9	1.1	0.3	-0.5	0.8	-1.4	1.0	-1.8	-1.6	1.2	3.2	-0.5	-0.7

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Romania													
Real GDP	-1.2	2.4	5.7	5.1	5.2	8.5	4.2	7.9	6.3	7.3	-7.1	0.8	3.5
Total employment	:	-0.8	-1.1	-10.2	0.0	-1.7	-1.5	0.7	0.4	-0.2	-1.8	-1.7	0.8
Labour productivity	:	3.2	6.8	17.0	5.3	10.3	5.8	7.1	5.9	7.6	-5.4	2.5	2.6
Annual average hours worked	:	0.2	0.0	0.8	-1.6	0.5	0.4	0.9	0.5	0.0	-0.2	:	:
Productivity per hour worked	:	3.0	6.8	16.0	7.0	9.8	5.4	6.2	5.4	7.6	-5.2	:	:
Harmonized CPI	45.8	45.7	34.5	22.5	15.3	11.9	9.1	6.6	4.9	7.9	5.6	4.3	3.0
Price deflator GDP	49.4	43.3	37.8	22.7	23.4	15.5	12.2	10.6	13.5	15.2	2.8	4.6	4.0
Nominal compensation per employee	:	69.8	55.1	16.2	28.0	13.7	28.6	12.4	22.0	24.2	1.1	2.3	2.5
Real compensation per employee (GDP deflator)	:	18.5	12.5	-5.3	3.7	-1.6	14.6	1.7	7.5	7.8	-1.6	-2.2	-1.5
Real compensation per employee (private consumption deflator)	:	23.3	15.3	-3.4	10.5	0.8	20.3	7.2	16.5	13.5	-2.1	-1.6	-0.8
Nominal unit labour costs	:	64.5	45.2	-0.7	21.5	3.1	21.6	4.9	15.2	15.4	6.9	-0.2	-0.1
Real unit labour costs	:	14.8	5.4	-19.0	-1.5	-10.8	8.4	-5.1	1.5	0.2	4.0	-4.6	-4.0
Slovenia													
Real GDP	5.4	4.4	2.8	4.0	2.8	4.3	4.5	5.8	6.8	3.5	-7.8	1.1	1.8
Total employment	1.4	1.3	0.5	1.5	-0.4	0.3	-0.2	1.5	3.0	2.8	-2.2	-2.3	-0.5
Labour productivity	3.9	3.1	2.4	2.4	3.2	4.0	4.7	4.2	3.7	0.7	-5.8	3.5	2.3
Annual average hours worked	:	:	:	:	:	:	:	-1.7	-0.8	1.9	0.2	0.1	0.2
Productivity per hour worked	:	:	:	:	:	:	:	6.0	4.5	-1.2	-5.9	3.4	2.1
Harmonized CPI	6.1	8.9	8.6	7.5	5.7	3.7	2.5	2.5	3.8	5.5	0.9	1.8	2.0
Price deflator GDP	6.6	5.3	8.7	7.7	5.6	3.4	1.6	2.1	4.2	3.8	1.9	0.0	1.8
Nominal compensation per employee	8.7	10.2	11.8	8.8	7.9	7.8	5.6	5.3	6.4	7.0	3.0	2.9	3.4
Real compensation per employee (GDP deflator)	2.0	4.7	2.9	1.1	2.2	4.3	4.0	3.2	2.1	3.0	1.0	2.9	1.6
Real compensation per employee (private consumption deflator)	2.2	2.8	3.9	1.0	2.5	4.7	3.5	3.0	2.2	1.5	4.0	1.1	1.3
Nominal unit labour costs	4.6	7.0	9.2	6.3	4.5	3.7	0.9	1.0	2.6	6.2	9.3	-0.6	1.0
Real unit labour costs	-1.9	1.5	0.5	-1.3	-1.0	0.3	-0.7	-1.0	-1.5	2.3	7.2	-0.7	-0.7
Slovakia													
Real GDP	0.0	1.4	3.5	4.6	4.8	5.0	6.7	8.5	10.6	6.2	-4.7	2.7	3.6
Total employment	-2.5	-2.0	0.6	0.1	1.1	-0.2	1.4	2.3	2.1	2.8	-2.4	-1.9	1.2
Labour productivity	2.6	3.4	2.9	4.5	3.7	5.3	5.2	6.1	8.3	3.3	-2.4	4.7	2.4
Annual average hours worked	0.0	0.4	-1.4	-3.1	-3.2	3.3	2.0	-0.7	-0.1	1.0	-4.3	0.5	0.4
Productivity per hour worked	2.7	3.0	4.4	7.9	7.1	1.9	3.2	6.8	8.4	2.3	2.0	4.1	2.0
Harmonized CPI	10.4	12.2	7.2	3.5	8.4	7.5	2.8	4.3	1.9	3.9	0.9	1.3	2.8
Price deflator GDP	7.4	9.4	5.0	3.9	5.3	5.9	2.4	2.9	1.1	2.9	-1.2	1.3	3.0
Nominal compensation per employee	6.9	13.3	5.8	8.7	8.2	8.4	9.7	7.7	8.4	5.9	4.7	3.5	4.2
Real compensation per employee (GDP deflator)	-0.5	3.6	0.8	4.6	2.7	2.4	7.1	4.6	7.2	3.0	5.9	2.2	1.2
Real compensation per employee (private consumption deflator)	-2.8	4.7	0.2	5.7	1.5	1.0	6.8	2.7	5.6	1.3	3.6	2.0	1.4
Nominal unit labour costs	4.1	9.6	2.9	4.0	4.3	3.0	4.2	1.5	0.1	2.5	7.2	-1.1	1.7
Real unit labour costs	-3.0	0.2	-2.0	0.1	-0.9	-2.7	1.8	-1.4	-1.0	-0.3	8.5	-2.3	-1.2
Finland													
Real GDP	3.9	5.3	2.3	1.8	2.0	4.1	2.9	4.4	5.3	0.9	-8.0	1.4	2.1
Total employment	2.5	2.1	1.3	0.9	0.1	0.4	1.4	1.8	2.2	1.6	-2.8	-2.1	0.4
Labour productivity	1.4	3.2	0.9	0.9	1.9	3.7	1.5	2.5	3.1	-0.6	-5.3	3.6	1.7
Annual average hours worked	0.2	-0.8	-1.0	-0.4	-0.4	0.3	-0.4	-0.4	-0.1	-0.1	-1.9	2.0	0.2
Productivity per hour worked	1.2	4.0	2.0	1.3	2.4	3.4	2.0	2.9	3.2	-0.5	-3.5	1.5	1.5
Harmonized CPI	1.3	2.9	2.7	2.0	1.3	0.1	0.8	1.3	1.6	3.9	1.6	1.7	1.9
Price deflator GDP	0.9	2.6	3.0	1.3	-0.7	0.5	0.5	0.9	3.0	1.8	0.9	1.4	2.0
Nominal compensation per employee	2.1	3.8	4.6	1.7	2.7	3.7	3.7	2.9	3.7	5.1	1.9	2.6	2.1
Real compensation per employee (GDP deflator)	1.2	1.2	1.5	0.4	3.4	3.1	3.3	2.0	0.6	3.2	1.1	1.2	0.1
Real compensation per employee (private consumption deflator)	0.7	-0.5	2.1	-0.4	3.3	3.3	2.9	1.4	1.4	1.6	1.4	1.1	0.0
Nominal unit labour costs	0.7	0.6	3.6	0.9	0.8	0.0	2.2	0.3	0.5	5.8	7.7	-1.0	0.4
Real unit labour costs	-0.2	-2.0	0.6	-0.4	1.5	-0.5	1.7	-0.5	-2.4	3.9	6.8	-2.3	-1.6
Sweden													
Real GDP	4.7	4.5	1.3	2.5	2.3	4.2	3.2	4.3	3.3	-0.4	-5.1	1.8	2.5
Total employment	2.1	2.5	2.1	0.0	-0.6	-0.7	0.3	1.7	2.5	0.9	-2.0	-0.9	0.3
Labour productivity	2.5	1.9	-0.8	2.4	2.9	5.0	2.9	2.6	0.8	-1.3	-3.2	2.7	2.2
Annual average hours worked	0.5	-1.4	-1.4	-1.4	-0.8	1.5	0.0	-0.4	1.0	0.7	-0.9	-1.0	1.5
Productivity per hour worked	2.0	3.4	0.6	3.9	3.8	3.4	2.9	2.9	-0.2	-2.0	-2.3	3.7	0.7
Harmonized CPI	0.5	1.3	2.7	1.9	2.3	1.0	0.8	1.5	1.7	3.3	1.9	1.7	1.6
Price deflator GDP	0.9	1.4	2.4	1.5	1.8	0.3	0.9	1.9	2.8	3.2	2.0	2.4	2.1
Nominal compensation per employee	1.3	7.3	4.3	2.9	3.2	4.0	3.1	2.1	5.0	1.3	1.4	2.1	2.5
Real compensation per employee (GDP deflator)	0.4	5.8	1.9	1.3	1.4	3.7	2.2	0.1	2.2	-1.9	-0.5	-0.3	0.4
Real compensation per employee (private consumption deflator)	-0.1	6.3	2.1	1.3	1.5	3.2	2.0	0.8	3.6	-1.5	-0.4	0.2	0.6
Nominal unit labour costs	-1.2	5.2	5.2	0.4	0.2	-0.9	0.2	-0.5	4.1	2.6	4.8	-0.5	0.3
Real unit labour costs	-2.1	3.7	2.7	-1.1	-1.5	-1.2	-0.7	-2.4	1.4	-0.6	2.7	-2.9	-1.8

Annual percentage growth

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
United Kingdom													
Real GDP	3.5	3.9	2.5	2.1	2.8	3.0	2.2	2.8	2.7	-0.1	-4.9	1.2	2.1
Total employment	1.4	1.2	0.8	0.8	1.0	1.1	1.0	0.9	0.7	0.7	-1.6	-0.3	0.7
Labour productivity	2.1	2.7	1.6	1.3	1.8	1.9	1.1	1.9	2.0	-0.8	-3.4	1.5	1.5
Annual average hours worked	-0.7	-0.6	0.2	-1.1	-1.1	-0.3	0.2	-0.3	0.1	-1.2	-1.1	-0.6	-0.6
Productivity per hour worked	2.8	3.4	1.4	2.5	3.0	2.2	0.9	2.2	1.9	0.4	-2.3	2.1	2.1
Harmonized CPI	1.3	0.8	1.2	1.3	1.4	1.3	2.1	2.3	2.3	3.6	2.2	2.4	1.4
Price deflator GDP	2.1	1.2	2.1	3.1	3.1	2.5	2.0	3.1	3.0	3.0	1.3	2.5	1.4
Nominal compensation per employee	4.5	5.7	5.1	3.2	4.8	3.8	3.6	4.5	5.0	1.5	2.0	1.4	1.6
Real compensation per employee (GDP deflator)	2.3	4.4	2.9	0.1	1.7	1.3	1.6	1.4	2.0	-1.5	0.7	-1.0	0.2
Real compensation per employee (private consumption deflator)	3.2	4.5	3.1	1.7	2.9	2.0	1.2	1.7	2.1	-1.6	0.7	-1.0	0.2
Nominal unit labour costs	2.4	2.9	3.4	1.9	2.9	1.9	2.5	2.6	3.0	2.3	5.5	-0.1	0.2
Real unit labour costs	0.3	1.7	1.3	-1.2	-0.1	-0.6	0.4	-0.4	0.0	-0.7	4.2	-2.5	-1.3
Croatia													
Real GDP	-1.5	3.0	3.8	5.4	5.0	4.2	4.2	4.7	5.5	2.4	-5.8	-0.5	2.0
Total employment	-3.3	4.0	-5.4	4.2	0.6	1.7	0.8	-0.6	3.5	1.1	-2.5	-2.0	0.5
Labour productivity	1.9	-0.9	9.8	1.2	4.3	2.5	3.4	5.4	1.9	1.3	-3.4	1.5	1.5
Annual average hours worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Productivity per hour worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Harmonized CPI	3.7	4.5	4.3	2.5	2.4	2.1	3.0	3.3	2.7	5.8	2.2	1.5	3.0
Price deflator GDP	3.7	4.5	4.0	3.5	3.9	3.8	3.3	3.4	4.0	6.4	3.3	0.4	2.5
Nominal compensation per employee	10.7	0.1	9.4	6.1	0.5	13.5	6.4	-2.1	5.3	9.3	2.2	0.6	3.0
Real compensation per employee (GDP deflator)	6.7	-4.3	5.2	2.5	-3.3	9.3	3.0	-5.4	1.2	2.7	-1.1	0.1	0.5
Real compensation per employee (private consumption deflator)	6.8	-4.9	4.8	3.8	-1.5	11.2	3.0	16.7	2.2	3.0	0.1	-0.9	0.0
Nominal unit labour costs	8.7	1.0	-0.3	4.8	-3.7	10.7	2.9	-7.1	3.3	7.9	5.8	-0.9	1.5
Real unit labour costs	4.8	-3.4	-4.2	1.3	-7.3	6.7	-0.4	-10.2	-0.7	1.4	2.4	-1.4	-1.0
Macedonia FYR													
Real GDP	4.3	4.5	-4.5	0.9	2.8	4.1	4.1	4.0	5.9	4.9	-0.7	1.3	2.0
Total employment	-0.6	0.3	-1.7	-0.6	-1.9	-2.2	2.1	3.2	4.3	6.2	3.4	1.5	2.0
Labour productivity	5.0	4.2	-2.9	1.4	4.8	6.4	2.0	0.8	1.5	-1.2	-4.0	-0.2	-0.1
Annual average hours worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Productivity per hour worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Harmonized CPI	-1.1	5.8	5.5	1.8	1.2	-0.4	0.5	3.2	2.3	8.3	-0.8	1.3	2.0
Price deflator GDP	2.7	8.2	3.6	3.4	0.3	1.3	3.8	7.4	7.6	7.5	2.8	2.1	3.2
Nominal compensation per employee	6.2	4.9	-0.2	4.5	7.9	-2.9	-3.3	11.7	-4.8	9.0	1.0	0.7	0.9
Real compensation per employee (GDP deflator)	3.4	-3.1	-3.7	1.0	7.7	-4.1	-6.8	3.9	-11.6	1.3	-1.7	-1.3	-2.3
Real compensation per employee (private consumption deflator)	6.5	-3.4	-5.2	2.3	4.3	-3.8	-4.1	5.3	-6.5	-1.4	1.4	-0.6	-1.1
Nominal unit labour costs	1.2	0.6	2.7	3.1	3.0	-8.7	-5.1	10.8	-6.3	10.3	5.3	1.0	0.9
Real unit labour costs	-1.5	-7.0	-0.8	-0.4	2.7	-9.9	-8.6	3.2	-12.9	2.6	2.5	-1.1	-2.2
Turkey													
Real GDP	-3.4	6.8	-5.7	6.6	4.9	9.4	8.4	6.9	4.7	0.4	-4.5	4.7	4.5
Total employment	2.1	-0.4	-1.0	-1.8	-1.0	3.0	1.4	1.3	1.1	2.2	0.4	0.9	1.4
Labour productivity	-5.4	7.2	-4.7	8.5	5.9	6.1	6.9	5.5	3.5	-1.7	-4.9	3.7	3.1
Annual average hours worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Productivity per hour worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Harmonized CPI	61.4	53.2	56.8	47.0	25.3	10.1	8.1	9.3	8.8	10.4	6.3	9.0	7.8
Price deflator GDP	54.2	49.2	52.9	36.9	23.8	12.4	7.1	9.3	6.2	12.2	5.1	6.3	6.2
Nominal compensation per employee	84.4	44.9	43.6	37.9	27.9	16.5	11.6	12.7	12.7	8.6	-0.8	6.4	7.2
Real compensation per employee (GDP deflator)	19.6	-2.9	-6.1	0.3	3.7	3.6	4.2	3.1	6.1	-2.7	-5.3	0.1	1.0
Real compensation per employee (private consumption deflator)	20.2	-6.4	-4.1	-0.5	3.7	5.1	3.1	2.6	5.8	-1.6	-6.7	-1.9	1.0
Nominal unit labour costs	94.9	32.9	51.8	28.8	20.3	9.8	4.4	6.8	8.9	10.0	4.6	2.5	4.0
Real unit labour costs	26.4	-11.0	-0.7	-6.3	-2.4	-2.3	-2.5	-2.3	2.5	-1.5	-0.2	-3.5	-2.0
Iceland													
Real GDP	4.1	4.3	3.9	0.1	2.4	7.7	7.5	4.6	6.0	1.0	-6.5	-1.1	1.9
Total employment	3.7	2.0	1.7	-1.4	0.1	-0.4	3.3	5.1	4.5	0.8	-6.0	-0.8	1.4
Labour productivity	0.4	2.3	2.2	1.6	2.3	8.2	4.1	-0.5	1.4	0.2	-0.5	-0.3	0.5
Annual average hours worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Productivity per hour worked	:	:	:	:	:	:	:	:	:	:	:	:	:
Harmonized CPI	2.1	4.4	6.6	5.3	1.4	2.3	1.4	4.6	3.6	12.8	16.3	8.7	5.7
Price deflator GDP	3.3	3.6	8.6	5.6	0.6	2.5	2.8	8.8	5.7	11.9	8.6	1.7	7.8
Nominal compensation per employee	:	:	:	:	:	:	:	:	:	:	:	:	:
Real compensation per employee (GDP deflator)	:	:	:	:	:	:	:	:	:	:	:	:	:
Real compensation per employee (private consumption deflator)	:	:	:	:	:	:	:	:	:	:	:	:	:
Nominal unit labour costs	:	:	:	:	:	:	:	:	:	:	:	:	:
Real unit labour costs	:	:	:	:	:	:	:	:	:	:	:	:	:

3. KEY EMPLOYMENT INDICATORS

Labour market indicators: European Union 27

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	474 647	477 983	479 214	480 427	482 079	484 401	486 446	488 470	490 592	492 221
2. Population aged 15-64	:	319 598	320 968	322 184	323 188	324 132	326 330	327 872	329 195	330 387	330 870
3. Total employment (000)	206 710	209 874	211 860	212 635	213 379	214 812	216 843	220 390	224 357	226 448	222 305
4. Population in employment aged 15-64	197 212	198 900	200 792	200 901	202 305	204 076	207 368	211 369	215 277	217 751	213 887
5. Employment rate (% population aged 15-64)	61.8	62.2	62.6	62.4	62.6	63.0	63.5	64.5	65.4	65.9	64.6
6. Employment rate (% population aged 20-64)	66.2	66.6	66.9	66.7	67.0	67.4	68.1	69.1	70.0	70.5	69.1
7. Employment rate (% population aged 15-24)	37.1	37.5	37.5	36.7	36.1	36.2	36.1	36.6	37.4	37.6	35.2
8. Employment rate (% population aged 25-54)	75.6	76.0	76.2	76.0	76.2	76.7	77.2	78.2	79.1	79.6	78.2
9. Employment rate (% population aged 55-64)	36.5	36.9	37.7	38.5	40.0	40.7	42.3	43.5	44.6	45.6	46.0
10. FTE employment rate (% population aged 15-64)	:	:	58.3	58.1	58.1	57.9	58.3	59.1	60.0	60.5	59.2
11. Self-employed (% total employment)	16.8	16.6	16.5	16.4	16.6	16.3	16.2	15.9	15.7	15.5	15.5
12. Part-time employment (% total employment)	15.9	16.2	16.2	16.2	16.5	17.2	17.8	18.1	18.2	18.2	18.8
13. Fixed term contracts (% total employees)	11.8	12.3	12.4	12.3	12.7	13.3	14.0	14.4	14.5	14.0	13.5
14. Employment in Services (% total employment)	65.2	65.9	66.2	66.9	67.5	68.1	68.5	68.9	69.1	69.5	70.4
15. Employment in Industry (% total employment)	27.3	26.8	26.6	26.1	25.7	25.4	25.2	25.1	25.1	24.9	24.1
16. Employment in Agriculture (% total employment)	7.5	7.3	7.1	7.0	6.8	6.5	6.3	6.0	5.8	5.6	5.6
17. Activity rate (% population aged 15-64)	:	68.6	68.6	68.6	68.9	69.3	69.8	70.3	70.5	70.9	71.1
18. Activity rate (% of population aged 15-24)	:	45.9	45.6	45.0	44.3	44.4	44.3	44.2	44.2	44.5	43.8
19. Activity rate (% of population aged 25-54)	:	82.6	82.5	82.6	82.9	83.4	83.8	84.3	84.4	84.8	84.9
20. Activity rate (% of population aged 55-64)	:	39.7	40.3	41.1	42.7	43.6	45.2	46.4	47.2	48.1	49.1
21. Total unemployment (000)	:	19 516	19 245	20 260	20 563	20 960	20 772	19 249	16 955	16 771	21 445
22. Unemployment rate (% labour force 15+)	:	8.7	8.5	8.9	9.0	9.1	8.9	8.2	7.1	7.0	8.9
23. Youth unemployment rate (% labour force 15-24)	:	17.3	17.3	18.0	18.1	18.5	18.3	17.1	15.3	15.4	19.6
24. Long term unemployment rate (% labour force)	:	4.0	3.9	4.0	4.1	4.2	:	3.7	3.1	2.6	3.0
25. Youth unemployment ratio (% population aged 15-24)	:	8.4	8.1	8.3	8.2	8.2	8.2	7.6	6.8	6.9	8.7

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	230 855	232 675	233 412	234 031	234 847	236 125	237 266	238 323	239 383	240 255
2. Population aged 15-64	:	159 064	159 854	160 528	161 061	161 570	162 719	163 590	164 240	164 819	165 062
3. Total employment (000)	117 814	118 995	119 656	119 659	119 690	119 991	120 780	122 465	124 388	125 019	121 628
4. Population in employment aged 15-64	112 379	112 695	113 303	112 936	113 306	113 773	115 263	117 203	119 089	119 931	116 749
5. Employment rate (% population aged 15-64)	70.7	70.8	70.9	70.4	70.3	70.4	70.8	71.6	72.5	72.8	70.7
6. Employment rate (% population aged 20-64)	75.8	76.0	76.0	75.5	75.5	75.6	76.0	76.9	77.8	78.0	75.8
7. Employment rate (% population aged 15-24)	40.7	40.8	40.7	39.7	39.0	39.1	39.0	39.6	40.4	40.4	37.2
8. Employment rate (% population aged 25-54)	85.5	85.6	85.5	84.9	84.8	84.8	85.2	86.0	86.8	86.9	84.6
9. Employment rate (% population aged 55-64)	46.9	47.1	47.7	48.4	49.9	50.4	51.6	52.7	53.9	55.0	54.8
10. FTE employment rate (% population aged 15-64)	:	:	69.7	69.2	68.9	68.6	68.9	69.6	70.5	70.7	68.5
11. Self-employed (% total employment)	19.2	19.1	19.0	19.1	19.5	19.3	19.2	18.9	18.7	18.6	18.7
12. Part-time employment (% total employment)	6.4	6.5	6.6	6.6	6.7	7.1	7.4	7.7	7.7	7.9	8.3
13. Fixed term contracts (% total employees)	11.3	11.6	11.7	11.6	12.0	12.8	13.6	13.9	13.8	13.3	12.7
14. Employment in Services (% total employment)	55.6	56.3	56.5	57.0	57.4	57.9	58.1	58.4	58.5	60.1	60.9
15. Employment in Industry (% total employment)	36.4	35.9	35.8	35.3	35.0	34.8	34.7	34.8	35.0	33.9	33.0
16. Employment in Agriculture (% total employment)	8.0	7.8	7.6	7.6	7.6	7.3	7.1	6.8	6.5	6.1	6.1
17. Activity rate (% population aged 15-64)	:	77.2	77.0	76.8	76.9	77.0	77.3	77.6	77.7	78.0	77.8
18. Activity rate (% of population aged 15-24)	:	49.5	49.2	48.6	47.9	47.8	47.8	47.6	47.6	47.9	47.0
19. Activity rate (% of population aged 25-54)	:	91.9	91.6	91.4	91.5	91.5	91.7	92.0	91.9	92.0	91.8
20. Activity rate (% of population aged 55-64)	:	50.7	51.1	51.7	53.3	54.0	55.2	56.1	57.0	57.9	58.6
21. Total unemployment (000)	:	9 740	9 752	10 432	10 612	10 807	10 686	9 820	8 589	8 673	11 784
22. Unemployment rate (% labour force 15+)	:	7.8	7.8	8.3	8.4	8.5	8.3	7.6	6.6	6.6	9.0
23. Youth unemployment rate (% labour force 15-24)	:	16.6	16.9	17.9	18.1	18.4	18.3	16.9	15.1	15.6	20.8
24. Long term unemployment rate (% labour force)	:	3.5	3.5	3.6	3.8	3.9	:	3.5	2.8	2.4	2.9
25. Youth unemployment ratio (% population aged 15-24)	:	8.7	8.5	8.9	8.9	8.8	8.8	8.1	7.2	7.5	9.8

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	243 789	245 306	245 801	246 394	247 231	248 275	249 180	250 148	251 209	251 966
2. Population aged 15-64	:	160 533	161 114	161 656	162 127	162 562	163 611	164 282	164 955	165 568	165 807
3. Total employment (000)	88 896	90 879	92 204	92 976	93 688	94 821	96 063	97 925	99 969	101 429	100 678
4. Population in employment aged 15-64	84 837	86 206	87 489	87 965	88 999	90 303	92 105	94 167	96 187	97 820	97 138
5. Employment rate (% population aged 15-64)	53.0	53.7	54.3	54.4	54.9	55.6	56.3	57.3	58.3	59.1	58.6
6. Employment rate (% population aged 20-64)	56.6	57.3	57.9	58.1	58.7	59.4	60.2	61.3	62.2	63.0	62.5
7. Employment rate (% population aged 15-24)	33.6	34.1	34.2	33.8	33.2	33.2	33.1	33.5	34.3	34.6	33.1
8. Employment rate (% population aged 25-54)	65.7	66.3	66.9	67.1	67.7	68.5	69.2	70.3	71.4	72.3	71.7
9. Employment rate (% population aged 55-64)	26.7	27.4	28.2	29.1	30.7	31.6	33.6	34.9	35.9	36.8	37.8
10. FTE employment rate (% population aged 15-64)	:	:	47.2	47.3	47.7	47.6	48.0	49.0	49.9	50.7	50.1
11. Self-employed (% total employment)	13.7	13.5	13.3	12.9	12.8	12.5	12.4	12.2	12.0	11.8	11.6
12. Part-time employment (% total employment)	28.5	28.9	28.6	28.5	29.0	30.0	30.9	31.2	31.2	31.1	31.5
13. Fixed term contracts (% total employees)	12.5	13.0	13.3	13.2	13.5	13.9	14.5	15.0	15.2	14.9	14.4
14. Employment in Services (% total employment)	77.8	78.2	78.5	79.4	80.0	80.7	81.2	81.8	82.1	81.7	82.5
15. Employment in Industry (% total employment)	15.3	15.2	15.0	14.5	14.1	13.8	13.4	13.2	13.1	13.3	12.6
16. Employment in Agriculture (% total employment)	6.9	6.6	6.5	6.1	5.9	5.5	5.4	5.0	4.9	5.0	4.9
17. Activity rate (% population aged 15-64)	:	60.1	60.2	60.5	61.0	61.7	62.4	63.0	63.3	63.9	64.3
18. Activity rate (% of population aged 15-24)	:	42.3	41.9	41.4	40.7	40.8	40.7	40.7	40.7	41.0	40.6
19. Activity rate (% of population aged 25-54)	:	73.3	73.4	73.7	74.4	75.4	75.9	76.5	76.9	77.5	78.0
20. Activity rate (% of population aged 55-64)	:	29.5	30.1	31.1	32.8	33.8	35.8	37.2	38.1	38.8	40.2
21. Total unemployment (000)	:	9 776	9 493	9 828	9 951	10 153	10 086	9 429	8 366	8 098	9 661
22. Unemployment rate (% labour force 15+)	:	9.8	9.4	9.7	9.7	9.8	9.6	8.9	7.8	7.5	8.8
23. Youth unemployment rate (% labour force 15-24)	:	18.2	17.8	18.1	18.1	18.7	18.4	17.4	15.6	15.3	18.2
24. Long term unemployment rate (% labour force)	:	4.6	4.4	4.5	4.5	4.6	:	4.0	3.3	2.8	3.1
25. Youth unemployment ratio (% population aged 15-24)	:	8.2	7.7	7.7	7.5	7.6	7.6	7.2	6.4	6.3	7.5

Labour market indicators: European Union 15

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	369 708	371 160	373 352	375 166	377 507	379 334	381 777	383 958	386 171	388 391	389 998
2. Population aged 15-64	248 341	248 630	249 702	250 689	252 226	252 909	254 923	256 288	257 616	258 787	259 254
3. Total employment (000)	163 342	166 912	169 286	170 459	171 245	172 606	174 243	176 851	179 740	181 041	177 696
4. Population in employment aged 15-64	155 322	157 710	159 967	160 995	162 589	164 018	166 687	169 571	172 433	174 094	170 884
5. Employment rate (% population aged 15-64)	62.5	63.4	64.1	64.2	64.5	64.9	65.4	66.2	66.9	67.3	65.9
6. Employment rate (% population aged 20-64)	66.4	67.3	67.9	68.1	68.4	68.9	69.5	70.3	71.1	71.5	70.1
7. Employment rate (% population aged 15-24)	39.6	40.5	40.9	40.6	40.1	40.1	40.0	40.4	41.0	41.0	38.2
8. Employment rate (% population aged 25-54)	75.7	76.5	77.0	77.1	77.3	77.7	78.2	79.0	79.7	80.0	78.5
9. Employment rate (% population aged 55-64)	37.1	37.8	38.8	40.2	41.7	42.6	44.2	45.3	46.5	47.4	48.0
10. FTE employment rate (% population aged 15-64)	.	58.0	58.7	58.8	58.8	58.6	58.9	59.6	60.3	60.7	59.2
11. Self-employed (% total employment)	14.6	14.4	14.3	14.2	14.3	14.4	14.3	14.3	14.1	14.0	14.0
12. Part-time employment (% total employment)	17.6	17.7	17.9	18.1	18.5	19.4	20.2	20.8	20.9	21.0	21.6
13. Fixed term contracts (% total employees)	13.4	13.7	13.5	13.1	13.2	13.7	14.3	14.7	14.8	14.4	13.7
14. Employment in Services (% total employment)	69.6	70.1	70.5	71.1	71.7	72.2	72.5	72.9	73.1	73.4	74.4
15. Employment in Industry (% total employment)	26.1	25.7	25.4	25.0	24.5	24.1	23.9	23.6	23.5	23.2	22.3
16. Employment in Agriculture (% total employment)	4.3	4.1	4.0	3.9	3.8	3.7	3.7	3.5	3.4	3.4	3.4
17. Activity rate (% population aged 15-64)	68.9	69.2	69.2	69.7	70.2	70.7	71.2	71.8	72.0	72.5	72.5
18. Activity rate (% of population aged 15-24)	48.2	48.2	47.9	47.8	47.6	47.6	48.0	48.1	48.2	48.4	47.5
19. Activity rate (% of population aged 25-54)	82.2	82.4	82.4	82.8	83.3	83.8	84.2	84.7	84.9	85.3	85.4
20. Activity rate (% of population aged 55-64)	40.3	40.8	41.5	42.9	44.6	45.5	47.2	48.3	49.3	50.0	51.2
21. Total unemployment (000)	14 884	13 543	12 928	13 727	14 517	14 911	15 162	14 528	13 323	13 677	17 401
22. Unemployment rate (% labour force 15+)	8.5	7.7	7.3	7.6	8.0	8.1	8.1	7.7	7.0	7.1	9.0
23. Youth unemployment rate (% labour force 15-24)	16.4	14.8	14.2	14.7	15.3	16.0	16.3	15.7	14.7	15.3	19.2
24. Long term unemployment rate (% labour force)	3.9	3.4	3.1	3.1	3.3	3.4	.	3.2	2.8	2.6	3.0
25. Youth unemployment ratio (% population aged 15-24)	8.5	7.7	6.9	7.2	7.5	7.6	7.9	7.6	7.2	7.5	9.2

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	180 510	180 986	182 231	183 258	184 440	185 333	186 646	187 852	189 022	190 150	190 998
2. Population aged 15-64	124 227	124 114	124 742	125 286	126 045	126 372	127 373	128 147	128 806	129 375	129 582
3. Total employment (000)	94 271	95 738	96 691	96 782	96 778	97 013	97 429	98 618	99 928	100 085	97 232
4. Population in employment aged 15-64	89 549	90 310	91 196	91 241	91 691	91 944	92 953	94 302	95 596	95 948	93 229
5. Employment rate (% population aged 15-64)	72.1	72.8	73.1	72.8	72.7	72.8	73.0	73.6	74.2	74.2	71.9
6. Employment rate (% population aged 20-64)	76.7	77.4	77.7	77.4	77.4	77.5	77.7	78.4	79.1	79.0	76.7
7. Employment rate (% population aged 15-24)	43.1	44.0	44.3	43.6	43.0	43.0	42.9	43.3	43.8	43.5	39.8
8. Employment rate (% population aged 25-54)	86.5	87.2	87.3	86.8	86.6	86.5	86.7	87.3	87.8	87.6	85.1
9. Employment rate (% population aged 55-64)	47.5	48.0	48.9	50.1	51.6	52.2	53.2	54.1	55.3	56.2	56.2
10. FTE employment rate (% population aged 15-64)	.	71.1	71.5	71.2	70.8	70.4	70.6	71.1	71.7	71.6	69.3
11. Self-employed (% total employment)	17.3	17.2	17.1	17.1	17.3	17.5	17.4	17.4	17.3	17.2	17.4
12. Part-time employment (% total employment)	6.1	6.1	6.2	6.6	6.7	7.2	7.7	8.1	8.3	8.5	8.9
13. Fixed term contracts (% total employees)	12.6	12.8	12.5	12.2	12.3	12.9	13.7	14.0	14.0	13.5	12.7
14. Employment in Services (% total employment)	59.4	59.9	60.3	60.7	61.2	61.6	61.8	62.0	62.2	63.9	64.9
15. Employment in Industry (% total employment)	35.5	35.2	35.0	34.6	34.2	33.9	33.7	33.6	33.6	32.1	31.1
16. Employment in Agriculture (% total employment)	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.4	4.2	3.9	4.0
17. Activity rate (% population aged 15-64)	78.3	78.3	78.3	78.4	78.6	78.6	79.0	79.2	79.3	79.5	79.2
18. Activity rate (% of population aged 15-24)	51.7	51.6	51.4	51.2	51.0	50.9	51.2	51.3	51.3	51.5	50.2
19. Activity rate (% of population aged 25-54)	92.7	92.7	92.4	92.4	92.5	92.4	92.6	92.8	92.8	92.8	92.5
20. Activity rate (% of population aged 55-64)	51.5	51.7	52.2	53.4	55.1	55.9	56.9	57.6	58.5	59.2	60.1
21. Total unemployment (000)	7 366	6 645	6 433	6 956	7 412	7 591	7 761	7 339	6 677	7 045	9 545
22. Unemployment rate (% labour force 15+)	7.5	6.7	6.5	6.9	7.3	7.4	7.5	7.1	6.4	6.7	9.1
23. Youth unemployment rate (% labour force 15-24)	15.3	13.7	13.5	14.4	15.3	15.7	16.2	15.6	14.6	15.6	20.5
24. Long term unemployment rate (% labour force)	3.3	2.9	2.7	2.7	3.0	3.1	.	3.0	2.6	2.4	2.9
25. Youth unemployment ratio (% population aged 15-24)	8.6	7.7	7.1	7.6	8.0	7.9	8.4	8.0	7.5	8.0	10.3

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	189 197	190 174	191 121	191 909	193 067	194 001	195 131	196 106	197 148	198 241	199 000
2. Population aged 15-64	124 113	124 516	124 960	125 404	126 182	126 537	127 550	128 141	128 810	129 412	129 673
3. Total employment (000)	69 071	71 175	72 596	73 677	74 468	75 593	76 813	78 233	79 812	80 957	80 464
4. Population in employment aged 15-64	65 774	67 401	68 771	69 754	70 898	72 074	73 734	75 270	76 838	78 145	77 655
5. Employment rate (% population aged 15-64)	53.0	54.1	55.0	55.6	56.2	57.0	57.8	58.7	59.7	60.4	59.9
6. Employment rate (% population aged 20-64)	56.1	57.3	58.2	58.8	59.5	60.4	61.3	62.3	63.2	64.0	63.5
7. Employment rate (% population aged 15-24)	36.0	37.0	37.4	37.5	37.1	37.1	37.1	37.4	38.1	38.4	36.5
8. Employment rate (% population aged 25-54)	64.7	65.8	66.7	67.3	68.0	68.9	69.6	70.6	71.6	72.4	71.8
9. Employment rate (% population aged 55-64)	27.1	28.0	29.1	30.7	32.2	33.2	35.5	36.8	38.1	39.0	40.1
10. FTE employment rate (% population aged 15-64)	.	45.4	46.2	46.8	47.2	47.2	47.7	48.5	49.4	50.1	49.6
11. Self-employed (% total employment)	10.8	10.6	10.5	10.3	10.4	10.4	10.4	10.3	10.2	10.1	9.9
12. Part-time employment (% total employment)	33.2	33.2	33.3	33.3	33.8	35.1	36.1	36.7	36.7	36.6	37.0
13. Fixed term contracts (% total employees)	14.3	14.7	14.6	14.3	14.3	14.6	15.1	15.6	15.7	15.4	14.7
14. Employment in Services (% total employment)	83.1	83.5	83.8	84.4	84.9	85.4	85.8	86.2	86.4	86.0	86.8
15. Employment in Industry (% total employment)	13.6	13.4	13.1	12.6	12.3	11.9	11.6	11.3	11.1	11.4	10.7
16. Employment in Agriculture (% total employment)	3.3	3.2	3.1	2.9	2.8	2.7	2.7	2.5	2.5	2.6	2.5
17. Activity rate (% population aged 15-64)	59.5	60.0	60.2	61.0	61.7	62.7	63.5	64.3	64.7	65.4	65.9
18. Activity rate (% of population aged 15-24)	44.6	44.8	44.2	44.3	44.1	44.3	44.6	44.7	44.9	45.2	44.6
19. Activity rate (% of population aged 25-54)	71.6	72.1	72.3	73.1	74.0	75.2	75.8	76.5	77.0	77.8	78.2
20. Activity rate (% of population aged 55-64)	29.6	30.3	31.1	32.8	34.4	35.6	37.9	39.4	40.4	41.2	42.7
21. Total unemployment (000)	7 518	6 898	6 495	6 771	7 105	7 320	7 402	7 189	6 646	6 632	7 856
22. Unemployment rate (% labour force 15+)	9.9	8.9	8.3	8.5	8.8	8.9	8.9	8.5	7.8	7.6	9.0
23. Youth unemployment rate (% labour force 15-24)	17.7	16.0	15.0	15.0	15.4	16.3	16.5	16.0	14.9	14.9	17.8
24. Long term unemployment rate (% labour force)	4.6	4.1	3.6	3.6	3.7	3.8	.	3.5	3.1	2.8	3.1
25. Youth unemployment ratio (% population aged 15-24)	8.5	7.8	6.8	6.8	6.9	7.2	7.5	7.3	6.8	6.8	8.1

Labour market indicators: Belgium

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	10 214	10 239	10 263	10 310	10 356	10 396	10 477	10 546	10 614	10 708	10 796
2. Population aged 15-64	6 710	6 719	6 728	6 758	6 791	6 818	6 876	6 941	7 008	7 073	7 126
3. Total employment (000)	4 028	4 109	4 166	4 159	4 161	4 199	4 258	4 309	4 379	4 461	4 445
4. Population in employment aged 15-64	3 980	4 068	4 033	4 047	4 047	4 114	4 199	4 233	4 348	4 414	4 389
5. Employment rate (% population aged 15-64)	59.3	60.5	59.9	59.9	59.6	60.3	61.1	61.0	62.0	62.4	61.6
6. Employment rate (% population aged 20-64)	64.5	65.8	65.0	65.0	64.7	65.6	66.5	66.5	67.7	68.0	67.1
7. Employment rate (% population aged 15-24)	28.2	29.1	29.7	29.4	27.4	27.8	27.5	27.6	27.5	27.4	25.3
8. Employment rate (% population aged 25-54)	76.2	77.4	76.6	76.5	76.5	77.3	78.3	78.4	79.7	80.5	79.8
9. Employment rate (% population aged 55-64)	24.6	26.3	25.1	26.6	28.1	30.0	31.8	32.0	34.4	34.5	35.3
10. FTE employment rate (% population aged 15-64)	:	60.5	55.8	55.4	54.7	55.8	56.2	56.5	57.7	57.8	56.9
11. Self-employed (% total employment)	17.5	17.1	16.7	16.6	16.6	16.5	16.3	16.2	16.1	16.1	16.2
12. Part-time employment (% total employment)	18.4	18.9	18.5	19.1	20.5	21.4	22.0	22.2	22.1	22.6	23.4
13. Fixed term contracts (% total employees)	9.9	9.1	8.8	8.1	8.4	8.7	8.9	8.7	8.6	8.3	8.2
14. Employment in Services (% total employment)	74.8	75.0	75.2	76.0	76.6	77.1	77.5	77.8	78.1	78.3	78.9
15. Employment in Industry (% total employment)	23.0	22.8	22.7	22.0	21.4	20.9	20.5	20.3	20.1	19.9	19.3
16. Employment in Agriculture (% total employment)	2.3	2.2	2.1	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8
17. Activity rate (% population aged 15-64)	64.9	65.1	64.2	64.8	64.9	65.9	66.7	66.5	67.1	67.1	66.9
18. Activity rate (% of population aged 15-24)	35.7	35.3	35.7	35.7	35.0	35.3	35.0	34.7	33.9	33.4	32.4
19. Activity rate (% of population aged 25-54)	82.3	82.4	81.2	81.9	82.3	83.4	84.6	84.5	85.3	85.7	85.6
20. Activity rate (% of population aged 55-64)	25.9	27.1	25.9	27.7	28.9	31.2	33.3	33.6	35.9	36.1	37.2
21. Total unemployment (000)	370	302	286	331	362	379	390	383	353	333	380
22. Unemployment rate (% labour force 15+)	8.5	6.9	6.6	7.5	8.2	8.4	8.5	8.3	7.5	7.0	7.9
23. Youth unemployment rate (% labour force 15-24)	21.0	16.7	16.8	17.7	21.8	21.2	21.5	20.5	18.8	18.0	21.9
24. Long term unemployment rate (% labour force)	4.8	3.7	3.2	3.7	3.7	4.1	4.4	4.2	3.8	3.3	3.5
25. Youth unemployment ratio (% population aged 15-24)	7.5	6.2	6.1	6.3	7.6	7.5	7.5	7.1	6.4	6.0	7.1

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 994	5 006	5 018	5 042	5 067	5 086	5 127	5 162	5 197	5 246	5 291
2. Population aged 15-64	3 380	3 384	3 388	3 403	3 420	3 443	3 459	3 491	3 524	3 557	3 582
3. Total employment (000)	2 333	2 377	2 410	2 390	2 368	2 388	2 400	2 417	2 443	2 469	2 442
4. Population in employment aged 15-64	2 302	2 351	2 311	2 323	2 300	2 337	2 361	2 371	2 421	2 439	2 406
5. Employment rate (% population aged 15-64)	68.1	69.5	68.8	68.3	67.3	67.9	68.3	67.9	68.7	68.6	67.2
6. Employment rate (% population aged 20-64)	74.1	75.5	74.5	74.0	73.1	73.8	74.3	74.0	75.0	74.7	73.2
7. Employment rate (% population aged 15-24)	31.2	32.8	33.2	32.2	29.9	30.1	29.7	30.4	29.9	29.7	27.4
8. Employment rate (% population aged 25-54)	86.3	87.3	86.5	86.1	85.0	85.8	86.1	85.9	87.0	87.0	85.7
9. Employment rate (% population aged 55-64)	33.8	36.4	35.1	36.0	37.8	39.1	41.7	40.9	42.9	42.8	42.9
10. FTE employment rate (% population aged 15-64)	:	74.4	68.6	67.6	66.7	67.6	67.4	67.7	68.6	68.2	66.7
11. Self-employed (% total employment)	18.9	18.9	18.7	18.6	18.5	18.9	18.8	19.0	19.0	19.2	19.4
12. Part-time employment (% total employment)	5.1	5.5	5.2	5.6	6.4	6.8	7.6	7.4	7.5	7.9	8.6
13. Fixed term contracts (% total employees)	7.3	6.7	6.3	5.8	6.2	6.4	6.8	6.9	6.8	6.6	6.5
14. Employment in Services (% total employment)	64.7	65.2	65.5	66.4	67.2	67.6	68.3	67.9	68.6	69.3	70.3
15. Employment in Industry (% total employment)	32.6	32.1	31.9	31.1	30.3	29.9	29.3	29.7	29.1	28.4	27.5
16. Employment in Agriculture (% total employment)	2.7	2.8	2.6	2.5	2.5	2.5	2.4	2.5	2.3	2.2	2.2
17. Activity rate (% population aged 15-64)	73.4	73.7	73.2	73.2	72.9	73.4	73.9	73.4	73.6	73.3	72.8
18. Activity rate (% of population aged 15-24)	38.4	38.7	39.6	38.9	38.4	37.7	37.6	37.4	36.1	36.0	34.9
19. Activity rate (% of population aged 25-54)	92.0	91.8	91.0	91.3	90.9	91.8	92.2	91.9	92.5	92.3	91.8
20. Activity rate (% of population aged 55-64)	35.3	37.5	36.3	37.5	38.9	40.4	43.4	42.7	44.4	44.4	45.2
21. Total unemployment (000)	178	141	147	167	192	191	196	191	174	170	204
22. Unemployment rate (% labour force 15+)	7.1	5.6	5.9	6.7	7.7	7.5	7.6	7.4	6.7	6.5	7.8
23. Youth unemployment rate (% labour force 15-24)	19.4	14.5	16.0	17.2	22.2	20.2	21.0	18.8	17.1	17.3	21.5
24. Long term unemployment rate (% labour force)	4.0	3.1	2.9	3.2	3.4	3.7	3.9	3.7	3.3	3.0	3.4
25. Youth unemployment ratio (% population aged 15-24)	7.2	5.9	6.4	6.7	8.5	7.6	7.9	7.0	6.2	6.2	7.5

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 220	5 233	5 245	5 267	5 289	5 310	5 350	5 384	5 417	5 462	5 505
2. Population aged 15-64	3 331	3 336	3 341	3 355	3 371	3 375	3 417	3 450	3 484	3 517	3 543
3. Total employment (000)	1 694	1 732	1 755	1 769	1 792	1 811	1 859	1 892	1 936	1 992	2 002
4. Population in employment aged 15-64	1 678	1 717	1 702	1 724	1 746	1 777	1 838	1 862	1 927	1 975	1 984
5. Employment rate (% population aged 15-64)	50.4	51.5	51.0	51.4	51.8	52.6	53.8	54.0	55.3	56.2	56.0
6. Employment rate (% population aged 20-64)	54.7	56.0	55.3	55.8	56.2	57.2	58.6	58.8	60.3	61.3	61.0
7. Employment rate (% population aged 15-24)	25.1	25.4	26.0	26.5	24.7	25.4	25.2	24.7	25.0	25.0	23.2
8. Employment rate (% population aged 25-54)	65.8	67.2	66.5	66.8	67.8	68.5	70.4	70.7	72.3	73.8	73.8
9. Employment rate (% population aged 55-64)	15.7	16.6	15.5	17.5	18.7	21.1	22.1	23.2	26.0	26.3	27.7
10. FTE employment rate (% population aged 15-64)	:	46.6	43.0	43.2	42.9	44.4	45.2	45.6	47.1	47.7	47.4
11. Self-employed (% total employment)	15.6	14.6	14.0	13.9	14.0	13.2	13.1	12.7	12.6	12.2	12.4
12. Part-time employment (% total employment)	36.9	37.4	36.9	37.4	39.1	40.5	40.5	41.1	40.6	40.9	41.5
13. Fixed term contracts (% total employees)	13.2	12.3	12.0	11.2	11.1	11.7	11.4	10.9	10.8	10.2	10.2
14. Employment in Services (% total employment)	88.3	88.5	88.5	88.7	88.8	89.4	89.3	90.1	89.8	90.2	90.3
15. Employment in Industry (% total employment)	10.1	10.2	10.2	9.9	9.8	9.2	9.3	8.7	8.9	8.6	8.4
16. Employment in Agriculture (% total employment)	1.6	1.3	1.4	1.4	1.4	1.4	1.4	1.2	1.3	1.2	1.3
17. Activity rate (% population aged 15-64)	56.3	56.4	55.1	56.3	56.9	58.2	59.5	59.5	60.4	60.8	60.9
18. Activity rate (% of population aged 15-24)	32.8	31.8	31.7	32.4	31.4	32.8	32.3	31.9	31.6	30.8	29.9
19. Activity rate (% of population aged 25-54)	72.4	72.7	71.2	72.4	73.6	74.8	76.8	77.0	78.0	79.0	79.2
20. Activity rate (% of population aged 55-64)	16.8	17.1	15.9	18.2	19.2	22.1	23.4	24.6	27.5	27.9	29.3
21. Total unemployment (000)	192	161	138	164	170	188	194	192	179	163	176
22. Unemployment rate (% labour force 15+)	10.3	8.5	7.5	8.6	8.9	9.5	9.5	9.3	8.5	7.6	8.1
23. Youth unemployment rate (% labour force 15-24)	23.0	19.5	17.8	18.3	21.3	22.4	22.1	22.6	20.9	18.7	22.5
24. Long term unemployment rate (% labour force)	5.9	4.6	3.5	4.3	4.2	4.7	5.0	4.9	4.3	3.7	3.6
25. Youth unemployment ratio (% population aged 15-24)	7.8	6.5	5.7	5.9	6.7	7.3	7.1	7.2	6.6	5.8	6.7

Labour market indicators: Bulgaria

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	6 835	7 884	7 877	7 821	7 786	7 747	7 706	7 673	7 640	7 607
2. Population aged 15-64	:	5 491	5 375	5 357	5 308	5 306	5 283	5 238	5 198	5 169	5 122
3. Total employment (000)	3 318	3 239	3 215	3 222	3 317	3 403	3 495	3 612	3 714	3 836	3 723
4. Population in employment aged 15-64	:	2 768	2 672	2 709	2 785	2 877	2 947	3 072	3 209	3 306	3 205
5. Employment rate (% population aged 15-64)	:	50.4	49.7	50.6	52.5	54.2	55.8	58.6	61.7	64.0	62.6
6. Employment rate (% population aged 20-64)	:	55.3	54.8	55.8	58.0	60.1	61.9	65.1	68.4	70.7	68.8
7. Employment rate (% population aged 15-24)	:	19.7	19.8	19.4	20.7	21.5	21.6	23.2	24.5	26.3	24.8
8. Employment rate (% population aged 25-54)	:	68.5	67.2	67.6	69.2	71.2	73.0	75.7	79.4	81.3	79.2
9. Employment rate (% population aged 55-64)	:	20.8	24.0	27.0	30.0	32.5	34.7	39.6	42.6	46.0	46.1
10. FTE employment rate (% population aged 15-64)	:	:	50.3	50.6	52.5	54.5	55.3	58.2	61.4	63.5	61.9
11. Self-employed (% total employment)	27.8	28.2	29.3	29.2	28.7	28.5	27.8	27.2	26.6	26.3	26.9
12. Part-time employment (% total employment)	:	:	3.2	2.5	2.3	2.4	2.1	2.0	1.7	2.3	2.3
13. Fixed term contracts (% total employees)	:	:	6.3	5.3	6.5	7.4	6.4	6.2	5.2	5.0	4.7
14. Employment in Services (% total employment)	48.6	48.1	48.7	48.7	50.3	51.1	51.6	51.6	52.0	52.5	53.0
15. Employment in Industry (% total employment)	27.1	27.6	27.2	27.4	26.6	26.6	27.0	28.0	28.3	28.3	27.1
16. Employment in Agriculture (% total employment)	24.3	24.4	24.1	23.9	23.1	22.3	21.4	20.4	19.7	19.3	19.9
17. Activity rate (% population aged 15-64)	:	60.7	62.5	61.9	60.9	61.8	62.1	64.5	66.3	67.8	67.2
18. Activity rate (% of population aged 15-24)	:	30.5	33.2	30.9	28.8	28.9	27.9	28.9	28.9	30.1	29.5
19. Activity rate (% of population aged 25-54)	:	80.6	81.9	80.7	79.1	79.9	80.2	82.3	84.5	85.5	84.3
20. Activity rate (% of population aged 55-64)	:	24.0	29.2	31.8	33.9	36.2	38.0	43.0	45.7	48.7	49.2
21. Total unemployment (000)	402	561	663	608	449	400	334	306	240	200	238
22. Unemployment rate (% labour force 15+)	:	16.4	19.5	18.2	13.7	12.1	10.1	9.0	6.9	5.6	6.8
23. Youth unemployment rate (% labour force 15-24)	:	33.7	38.8	37.0	28.2	25.8	22.3	19.5	15.1	12.7	16.2
24. Long term unemployment rate (% labour force)	:	9.4	12.1	12.0	9.0	7.2	6.0	5.0	4.1	2.9	3.0
25. Youth unemployment ratio (% population aged 15-24)	:	10.8	13.4	11.5	8.1	7.5	6.2	5.6	4.4	3.8	4.8

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	3 270	3 818	3 820	3 792	3 775	3 754	3 731	3 714	3 700	3 681
2. Population aged 15-64	:	2 684	2 647	2 643	2 616	2 623	2 614	2 590	2 578	2 562	2 540
3. Total employment (000)	:	1 724	1 683	1 693	1 756	1 805	1 866	1 920	1 977	2 046	1 982
4. Population in employment aged 15-64	:	1 469	1 394	1 418	1 466	1 520	1 569	1 626	1 701	1 756	1 699
5. Employment rate (% population aged 15-64)	:	54.7	52.7	53.7	56.0	57.9	60.0	62.8	66.0	68.5	66.9
6. Employment rate (% population aged 20-64)	:	60.2	58.3	59.4	62.2	64.4	66.8	69.9	73.4	76.1	73.8
7. Employment rate (% population aged 15-24)	:	21.8	20.1	20.5	21.7	23.2	23.9	25.4	27.1	29.3	28.0
8. Employment rate (% population aged 25-54)	:	70.8	68.4	69.0	71.4	73.5	75.7	78.6	82.5	84.7	82.7
9. Employment rate (% population aged 55-64)	:	33.2	34.2	37.0	40.5	42.2	45.5	49.5	51.8	55.8	54.1
10. FTE employment rate (% population aged 15-64)	:	:	53.5	53.9	56.3	58.3	59.6	62.5	65.7	68.2	66.3
11. Self-employed (% total employment)	:	33.9	35.2	34.9	34.7	34.4	32.9	32.8	32.2	31.1	31.9
12. Part-time employment (% total employment)	:	:	2.9	2.1	1.9	2.1	1.7	1.5	1.3	2.0	2.0
13. Fixed term contracts (% total employees)	:	:	6.6	5.9	7.0	7.7	6.7	6.3	5.0	5.6	5.2
14. Employment in Services (% total employment)	:	40.7	41.9	42.2	43.8	44.6	44.7	43.9	44.3	44.8	44.7
15. Employment in Industry (% total employment)	:	30.4	29.0	29.0	28.8	29.0	30.0	31.8	32.1	32.4	31.5
16. Employment in Agriculture (% total employment)	:	28.8	29.0	28.8	27.5	26.4	25.3	24.3	23.6	22.8	23.8
17. Activity rate (% population aged 15-64)	:	66.2	67.0	66.4	65.4	66.4	67.0	68.8	70.6	72.5	72.0
18. Activity rate (% of population aged 15-24)	:	34.9	35.6	34.2	31.5	31.8	31.1	31.3	31.7	34.0	34.0
19. Activity rate (% of population aged 25-54)	:	83.3	84.2	83.0	81.8	82.9	83.3	85.1	87.5	88.8	88.0
20. Activity rate (% of population aged 55-64)	:	38.4	41.7	43.7	45.6	47.2	49.9	53.6	55.3	58.7	57.4
21. Total unemployment (000)	213	303	364	336	246	222	183	156	121	104	130
22. Unemployment rate (% labour force 15+)	:	16.7	20.2	18.9	14.1	12.6	10.3	8.7	6.5	5.5	7.0
23. Youth unemployment rate (% labour force 15-24)	:	36.1	42.0	40.1	31.0	27.0	23.4	18.9	14.5	13.7	17.8
24. Long term unemployment rate (% labour force)	:	9.5	12.6	12.5	9.3	7.3	6.1	4.8	3.7	2.7	2.8
25. Youth unemployment ratio (% population aged 15-24)	:	13.1	15.4	13.8	9.8	8.6	7.3	5.9	4.6	4.7	6.0

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	3 566	4 066	4 057	4 030	4 010	3 993	3 975	3 958	3 941	3 925
2. Population aged 15-64	:	2 807	2 729	2 714	2 692	2 683	2 669	2 647	2 621	2 607	2 582
3. Total employment (000)	:	1 515	1 532	1 529	1 561	1 598	1 629	1 692	1 737	1 789	1 741
4. Population in employment aged 15-64	:	1 299	1 278	1 290	1 319	1 357	1 378	1 446	1 508	1 551	1 506
5. Employment rate (% population aged 15-64)	:	46.3	46.8	47.5	49.0	50.6	51.7	54.6	57.6	59.5	58.3
6. Employment rate (% population aged 20-64)	:	50.7	51.5	52.3	54.0	56.0	57.1	60.4	63.5	65.4	64.0
7. Employment rate (% population aged 15-24)	:	17.7	19.4	18.4	19.6	19.6	19.4	21.0	21.8	23.1	21.4
8. Employment rate (% population aged 25-54)	:	66.3	65.9	66.1	67.1	68.8	70.3	72.8	76.2	77.9	75.8
9. Employment rate (% population aged 55-64)	:	10.3	14.7	18.2	21.0	24.2	25.5	31.1	34.5	37.7	39.2
10. FTE employment rate (% population aged 15-64)	:	:	47.2	47.5	48.8	50.8	51.1	54.0	57.1	58.9	57.7
11. Self-employed (% total employment)	:	21.7	22.8	22.9	22.0	21.9	21.9	20.8	20.1	20.8	21.2
12. Part-time employment (% total employment)	:	:	3.6	3.0	2.6	2.7	2.5	2.5	2.1	2.7	2.7
13. Fixed term contracts (% total employees)	:	:	5.9	4.7	6.0	7.0	6.2	6.1	5.5	4.4	4.2
14. Employment in Services (% total employment)	:	56.8	56.8	56.4	58.0	58.7	59.7	60.6	61.0	61.5	62.8
15. Employment in Industry (% total employment)	:	24.2	25.0	25.4	24.1	23.8	23.5	23.5	23.9	23.4	21.9
16. Employment in Agriculture (% total employment)	:	19.0	18.2	18.2	17.9	17.5	16.8	15.9	15.1	15.1	15.3
17. Activity rate (% population aged 15-64)	:	55.6	58.1	57.5	56.5	57.2	57.3	60.2	62.1	63.1	62.5
18. Activity rate (% of population aged 15-24)	:	26.3	30.9	27.6	26.1	25.9	24.5	26.4	26.0	26.1	24.8
19. Activity rate (% of population aged 25-54)	:	78.0	79.6	78.4	76.4	76.8	77.2	79.4	81.4	82.1	80.6
20. Activity rate (% of population aged 55-64)	:	11.8	18.0	21.5	23.8	26.8	27.8	33.9	37.2	40.2	42.1
21. Total unemployment (000)	189	258	299	272	203	178	152	149	120	96	108
22. Unemployment rate (% labour force 15+)	:	16.2	18.6	17.3	13.2	11.5	9.8	9.3	7.3	5.8	6.6
23. Youth unemployment rate (% labour force 15-24)	:	30.7	35.3	33.2	24.8	24.3	21.0	20.3	15.9	11.4	13.8
24. Long term unemployment rate (% labour force)	:	9.2	11.4	11.4	8.6	7.1	6.0	5.3	4.5	3.1	3.1
25. Youth unemployment ratio (% population aged 15-24)	:	8.6	11.5	9.3	6.5	6.3	5.2	5.3	4.1	3.0	3.4

Labour market indicators: Czech Republic

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	10 235	10 222	10 176	10 171	10 179	10 196	10 229	10 265	10 320	10 422	10 499
2. Population aged 15-64	7 089	7 116	7 121	7 149	7 182	7 231	7 270	7 307	7 347	7 410	7 431
3. Total employment (000)	4 949	4 940	4 963	4 991	4 924	4 940	4 992	5 088	5 224	5 288	5 226
4. Population in employment aged 15-64	4 653	4 625	4 631	4 677	4 647	4 639	4 710	4 769	4 856	4 934	4 857
5. Employment rate (% population aged 15-64)	65.6	65.0	65.0	65.4	64.7	64.2	64.8	65.3	66.1	66.6	65.4
6. Employment rate (% population aged 20-64)	71.5	71.0	71.2	71.6	70.7	70.1	70.7	71.2	72.0	72.4	70.9
7. Employment rate (% population aged 15-24)	38.3	36.4	34.2	32.2	30.0	27.8	27.5	27.7	28.5	28.1	26.5
8. Employment rate (% population aged 25-54)	81.9	81.6	82.1	82.5	81.7	81.4	82.0	82.5	83.5	83.8	82.5
9. Employment rate (% population aged 55-64)	37.5	36.3	37.1	40.8	42.3	42.7	44.5	45.2	46.0	47.6	46.8
10. FTE employment rate (% population aged 15-64)	:	63.2	63.4	64.7	64.1	63.3	64.0	64.4	65.1	65.6	64.2
11. Self-employed (% total employment)	17.1	17.4	17.4	18.1	19.1	18.8	18.2	18.2	18.1	18.0	18.7
12. Part-time employment (% total employment)	5.6	5.3	4.9	4.9	5.0	4.9	4.9	5.0	5.0	4.9	5.5
13. Fixed term contracts (% total employees)	7.6	8.1	8.0	8.1	9.2	9.1	8.6	8.7	8.6	8.0	8.5
14. Employment in Services (% total employment)	55.0	56.0	56.2	56.9	57.5	57.6	57.9	58.0	58.3	58.2	59.3
15. Employment in Industry (% total employment)	39.8	39.1	39.2	38.8	38.3	38.4	38.3	38.3	38.1	38.2	37.1
16. Employment in Agriculture (% total employment)	5.2	4.8	4.6	4.3	4.2	4.0	3.8	3.7	3.6	3.6	3.5
17. Activity rate (% population aged 15-64)	72.0	71.3	70.8	70.6	70.2	70.0	70.4	70.3	69.9	69.7	70.1
18. Activity rate (% of population aged 15-24)	46.7	44.4	41.5	38.7	36.8	35.2	34.0	33.5	31.9	31.1	31.8
19. Activity rate (% of population aged 25-54)	88.6	88.4	88.4	88.2	87.8	87.8	88.3	88.2	87.8	87.3	87.7
20. Activity rate (% of population aged 55-64)	39.4	38.2	39.0	42.4	44.2	45.1	46.9	47.7	48.2	49.5	49.6
21. Total unemployment (000)	444	445	409	373	398	426	410	372	277	230	352
22. Unemployment rate (% labour force 15+)	8.6	8.7	8.0	7.3	7.8	8.3	7.9	7.2	5.3	4.4	6.7
23. Youth unemployment rate (% labour force 15-24)	17.7	17.8	17.3	16.9	18.6	21.0	19.2	17.5	10.7	9.9	16.6
24. Long term unemployment rate (% labour force)	3.2	4.2	4.2	3.7	3.8	4.2	4.2	3.9	2.8	2.2	2.0
25. Youth unemployment ratio (% population aged 15-24)	8.4	8.0	7.3	6.5	6.8	7.4	6.5	5.9	3.4	3.1	5.3

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 954	4 949	4 932	4 934	4 941	4 959	4 987	5 012	5 045	5 107	5 156
2. Population aged 15-64	3 524	3 538	3 545	3 563	3 582	3 616	3 646	3 671	3 696	3 739	3 760
3. Total employment (000)	2 777	2 771	2 787	2 813	2 780	2 788	2 835	2 890	2 978	3 027	2 991
4. Population in employment aged 15-64	2 607	2 589	2 595	2 632	2 619	2 615	2 671	2 704	2 764	2 820	2 777
5. Employment rate (% population aged 15-64)	74.0	73.2	73.2	73.9	73.1	72.3	73.3	73.7	74.8	75.4	73.8
6. Employment rate (% population aged 20-64)	80.8	80.2	80.3	80.9	80.1	79.2	80.1	80.4	81.5	82.0	80.2
7. Employment rate (% population aged 15-24)	42.3	39.3	37.1	35.3	32.3	30.1	31.3	31.5	32.8	32.4	31.1
8. Employment rate (% population aged 25-54)	89.5	89.3	89.7	90.2	89.7	89.2	89.8	90.4	91.7	92.1	90.5
9. Employment rate (% population aged 55-64)	53.6	51.7	52.6	57.2	57.5	57.2	59.3	59.5	59.6	61.9	59.6
10. FTE employment rate (% population aged 15-64)	:	72.6	72.6	73.9	73.2	72.1	73.2	73.6	74.6	75.3	73.5
11. Self-employed (% total employment)	21.6	21.8	21.9	22.9	24.1	23.9	23.0	22.8	22.8	22.6	23.2
12. Part-time employment (% total employment)	2.4	2.2	2.2	2.2	2.3	2.3	2.1	2.2	2.3	2.2	2.8
13. Fixed term contracts (% total employees)	6.2	7.1	7.2	7.0	7.9	7.8	7.6	7.5	7.3	6.5	7.0
14. Employment in Services (% total employment)	44.4	45.7	46.3	46.8	47.2	47.4	47.9	48.0	48.0	48.5	49.5
15. Employment in Industry (% total employment)	49.3	48.4	48.0	47.9	47.6	47.7	47.4	47.6	47.6	47.2	46.3
16. Employment in Agriculture (% total employment)	6.3	5.9	5.7	5.3	5.1	4.9	4.7	4.4	4.4	4.2	4.2
17. Activity rate (% population aged 15-64)	79.9	79.1	78.6	78.6	78.0	77.9	78.4	78.3	78.1	78.1	78.5
18. Activity rate (% of population aged 15-24)	51.4	48.3	45.2	42.3	39.6	38.7	38.9	37.7	36.7	35.9	37.3
19. Activity rate (% of population aged 25-54)	95.1	94.9	94.9	94.8	94.4	94.6	94.8	94.8	95.0	94.8	95.1
20. Activity rate (% of population aged 55-64)	56.2	54.5	55.0	59.3	59.9	60.2	62.1	62.7	62.5	64.2	63.2
21. Total unemployment (000)	207	207	189	169	174	201	187	169	124	103	175
22. Unemployment rate (% labour force 15+)	7.3	7.3	6.7	6.0	6.2	7.1	6.5	5.8	4.2	3.5	5.9
23. Youth unemployment rate (% labour force 15-24)	17.4	18.5	17.6	16.6	18.3	22.2	19.3	16.6	10.6	9.8	16.6
24. Long term unemployment rate (% labour force)	2.4	3.5	3.4	3.0	2.9	3.4	3.4	3.1	2.1	1.7	1.6
25. Youth unemployment ratio (% population aged 15-24)	9.1	9.1	8.1	7.0	7.3	8.6	7.5	6.3	3.9	3.5	6.2

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 281	5 273	5 244	5 238	5 238	5 237	5 242	5 252	5 275	5 315	5 343
2. Population aged 15-64	3 565	3 578	3 576	3 586	3 601	3 615	3 624	3 636	3 651	3 671	3 671
3. Total employment (000)	2 173	2 169	2 176	2 178	2 144	2 152	2 157	2 199	2 246	2 262	2 235
4. Population in employment aged 15-64	2 045	2 036	2 036	2 045	2 028	2 024	2 039	2 065	2 092	2 114	2 081
5. Employment rate (% population aged 15-64)	57.4	56.9	56.9	57.0	56.3	56.0	56.3	56.8	57.3	57.6	56.7
6. Employment rate (% population aged 20-64)	62.3	61.9	62.2	62.3	61.4	61.1	61.3	61.8	62.4	62.5	61.4
7. Employment rate (% population aged 15-24)	34.3	33.5	31.4	29.2	27.6	25.4	23.4	23.7	23.9	23.5	21.7
8. Employment rate (% population aged 25-54)	74.2	73.7	74.4	74.7	73.5	73.4	74.0	74.5	74.9	75.2	74.1
9. Employment rate (% population aged 55-64)	23.2	22.4	23.1	25.9	28.4	29.4	30.9	32.1	33.5	34.4	35.0
10. FTE employment rate (% population aged 15-64)	:	53.9	54.2	55.6	55.1	54.6	54.8	55.2	55.5	55.8	54.8
11. Self-employed (% total employment)	11.3	11.7	11.7	12.0	12.7	12.2	11.8	12.3	11.8	11.9	12.7
12. Part-time employment (% total employment)	9.9	9.3	8.5	8.3	8.5	8.3	8.6	8.7	8.5	8.5	9.2
13. Fixed term contracts (% total employees)	9.1	9.4	8.9	9.3	10.7	10.7	9.8	10.1	10.2	9.8	10.2
14. Employment in Services (% total employment)	68.6	69.2	69.0	70.0	70.7	70.9	71.1	71.2	72.1	71.6	73.2
15. Employment in Industry (% total employment)	27.6	27.3	27.8	26.9	26.3	26.2	26.1	26.0	25.3	25.8	24.2
16. Employment in Agriculture (% total employment)	3.8	3.5	3.2	3.1	3.0	2.8	2.7	2.8	2.5	2.6	2.6
17. Activity rate (% population aged 15-64)	64.1	63.6	63.2	62.7	62.5	62.2	62.4	62.3	61.5	61.0	61.5
18. Activity rate (% of population aged 15-24)	42.0	40.6	37.9	35.2	34.0	31.5	28.9	29.2	26.9	26.1	26.1
19. Activity rate (% of population aged 25-54)	82.0	81.8	81.8	81.5	81.0	80.9	81.6	81.3	80.3	79.6	79.9
20. Activity rate (% of population aged 55-64)	24.4	23.7	24.6	27.2	30.0	31.3	32.9	34.0	35.2	36.1	37.2
21. Total unemployment (000)	237	237	220	205	224	225	224	202	153	127	177
22. Unemployment rate (% labour force 15+)	10.3	10.3	9.7	9.0	9.9	9.9	9.8	8.9	6.7	5.6	7.7
23. Youth unemployment rate (% labour force 15-24)	18.1	17.0	16.9	17.2	18.8	19.5	19.1	18.7	11.0	9.9	16.7
24. Long term unemployment rate (% labour force)	4.2	5.2	5.1	4.6	5.0	5.3	5.3	4.9	3.6	2.8	2.5
25. Youth unemployment ratio (% population aged 15-24)	7.8	7.0	6.5	6.1	6.4	6.1	5.5	5.4	2.9	2.6	4.4

Labour market indicators: Denmark

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 277	5 298	5 321	5 339	5 359	5 379	5 396	5 415	5 431	5 483	5 517
2. Population aged 15-64	3 525	3 532	3 545	3 538	3 548	3 559	3 566	3 569	3 573	3 591	3 592
3. Total employment (000)	2 746	2 760	2 785	2 787	2 756	2 739	2 767	2 825	2 908	2 964	2 864
4. Population in employment aged 15-64	2 680	2 694	2 700	2 684	2 666	2 693	2 706	2 762	2 757	2 804	2 721
5. Employment rate (% population aged 15-64)	76.0	76.3	76.2	75.9	75.1	75.7	75.9	77.4	77.1	78.1	75.7
6. Employment rate (% population aged 20-64)	77.7	78.0	78.3	77.7	77.3	77.6	78.0	79.4	79.2	79.9	77.8
7. Employment rate (% population aged 15-24)	65.5	66.0	62.3	63.5	59.6	62.3	62.3	64.6	65.3	67.0	63.6
8. Employment rate (% population aged 25-54)	83.9	84.2	84.4	84.1	83.5	83.7	84.5	86.1	86.3	88.0	85.1
9. Employment rate (% population aged 55-64)	54.5	55.7	58.0	57.9	60.2	60.3	59.5	60.7	58.6	57.0	57.5
10. FTE employment rate (% population aged 15-64)	:	69.3	69.8	69.7	68.4	68.6	68.6	69.3	69.3	70.0	67.6
11. Self-employed (% total employment)	7.0	6.8	6.6	6.7	6.7	6.4	6.3	6.2	6.0	5.9	6.2
12. Part-time employment (% total employment)	21.6	21.3	20.1	20.0	21.3	22.2	22.1	23.6	24.1	24.6	26.0
13. Fixed term contracts (% total employees)	9.6	9.7	9.2	9.1	9.3	9.5	9.8	8.9	8.7	8.4	8.9
14. Employment in Services (% total employment)	73.2	73.6	74.0	74.6	75.2	75.9	76.1	76.3	76.3	76.5	77.8
15. Employment in Industry (% total employment)	23.2	23.0	22.7	22.1	21.6	21.0	20.9	20.8	20.9	20.7	19.4
16. Employment in Agriculture (% total employment)	3.6	3.5	3.3	3.3	3.2	3.1	3.0	2.9	2.8	2.8	2.8
17. Activity rate (% population aged 15-64)	80.6	80.0	79.9	79.6	79.5	80.1	79.8	80.6	80.2	80.8	80.7
18. Activity rate (% of population aged 15-24)	72.3	70.7	68.0	68.6	65.6	67.9	68.1	69.9	70.9	72.5	71.7
19. Activity rate (% of population aged 25-54)	88.2	87.9	87.9	87.8	87.8	88.2	88.1	88.9	89.0	90.2	89.7
20. Activity rate (% of population aged 55-64)	57.5	58.2	60.5	60.4	63.3	63.9	62.8	63.2	60.8	58.7	60.3
21. Total unemployment (000)	147	122	130	131	155	160	140	114	111	98	177
22. Unemployment rate (% labour force 15+)	5.2	4.3	4.5	4.6	5.4	5.5	4.8	3.9	3.8	3.3	6.0
23. Youth unemployment rate (% labour force 15-24)	9.1	6.2	8.3	7.4	9.2	8.2	8.6	7.7	7.9	7.6	11.2
24. Long term unemployment rate (% labour force)	1.1	0.9	0.9	0.9	1.1	1.2	1.1	0.8	0.6	0.5	0.5
25. Youth unemployment ratio (% population aged 15-24)	6.8	4.8	5.7	5.1	6.0	5.6	5.9	5.4	5.6	5.5	8.0

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 609	2 620	2 632	2 640	2 650	2 662	2 671	2 682	2 688	2 716	2 734
2. Population aged 15-64	1 783	1 783	1 792	1 786	1 794	1 798	1 799	1 803	1 803	1 809	1 811
3. Total employment (000)	1 479	1 479	1 490	1 490	1 483	1 465	1 478	1 506	1 550	1 576	1 505
4. Population in employment aged 15-64	1 441	1 441	1 438	1 429	1 429	1 433	1 436	1 464	1 460	1 481	1 419
5. Employment rate (% population aged 15-64)	80.8	80.8	80.2	80.0	79.6	79.7	79.8	81.2	81.0	81.9	78.3
6. Employment rate (% population aged 20-64)	83.0	82.9	82.8	82.3	82.2	82.1	82.3	83.8	83.5	84.1	80.8
7. Employment rate (% population aged 15-24)	68.2	68.5	64.5	65.5	61.5	63.4	63.9	65.0	66.3	68.3	63.6
8. Employment rate (% population aged 25-54)	88.6	88.5	88.2	88.4	87.9	87.6	88.3	90.1	90.2	91.3	87.2
9. Employment rate (% population aged 55-64)	62.6	64.1	65.5	64.5	67.3	67.3	65.6	67.1	64.9	64.3	64.1
10. FTE employment rate (% population aged 15-64)	:	76.9	76.9	76.7	75.4	75.7	75.3	76.3	76.1	76.7	73.1
11. Self-employed (% total employment)	9.3	9.0	9.2	9.2	9.0	8.7	8.5	8.1	8.2	8.2	8.5
12. Part-time employment (% total employment)	10.4	10.2	10.2	11.1	11.6	12.1	12.7	13.3	13.5	14.2	15.3
13. Fixed term contracts (% total employees)	8.6	8.5	7.7	7.9	8.2	8.7	8.5	8.0	7.6	7.6	8.3
14. Employment in Services (% total employment)	62.3	62.7	63.2	64.1	64.5	65.2	65.7	65.6	66.6	67.5	68.9
15. Employment in Industry (% total employment)	32.4	32.5	31.9	31.1	30.8	30.2	29.9	30.1	29.5	28.4	27.0
16. Employment in Agriculture (% total employment)	5.3	4.9	4.9	4.8	4.7	4.6	4.4	4.2	3.9	4.0	4.1
17. Activity rate (% population aged 15-64)	84.9	84.2	83.8	83.6	83.8	84.0	83.6	84.1	83.9	84.4	84.0
18. Activity rate (% of population aged 15-24)	74.9	73.4	70.2	70.7	67.7	69.7	70.0	70.5	72.3	73.3	72.6
19. Activity rate (% of population aged 25-54)	92.3	91.7	91.4	91.9	91.8	91.5	91.7	92.3	92.5	93.4	92.4
20. Activity rate (% of population aged 55-64)	65.5	66.7	68.4	67.1	70.4	71.3	68.7	69.6	66.9	66.0	67.7
21. Total unemployment (000)	70	59	63	65	74	78	68	52	54	47	102
22. Unemployment rate (% labour force 15+)	4.6	3.9	4.1	4.3	4.8	5.1	4.4	3.3	3.5	3.0	6.5
23. Youth unemployment rate (% labour force 15-24)	9.3	6.6	8.1	7.3	9.2	8.9	8.6	7.9	8.2	6.9	12.4
24. Long term unemployment rate (% labour force)	1.0	0.8	0.8	0.7	1.2	1.1	1.1	0.7	0.5	0.4	0.6
25. Youth unemployment ratio (% population aged 15-24)	6.7	5.0	5.7	5.2	6.2	6.2	6.1	5.6	6.0	5.1	9.0

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 669	2 678	2 689	2 699	2 708	2 717	2 725	2 733	2 742	2 768	2 783
2. Population aged 15-64	1 743	1 749	1 752	1 752	1 753	1 762	1 767	1 767	1 770	1 782	1 781
3. Total employment (000)	1 267	1 281	1 295	1 297	1 273	1 274	1 290	1 318	1 358	1 388	1 359
4. Population in employment aged 15-64	1 239	1 253	1 261	1 256	1 237	1 261	1 270	1 297	1 296	1 323	1 302
5. Employment rate (% population aged 15-64)	71.1	71.6	72.0	71.7	70.5	71.6	71.9	73.4	73.2	74.3	73.1
6. Employment rate (% population aged 20-64)	72.3	72.9	73.7	73.1	72.4	73.0	73.7	74.8	74.8	75.7	74.8
7. Employment rate (% population aged 15-24)	62.7	63.3	60.1	61.4	57.6	61.1	60.5	64.1	64.2	65.7	63.7
8. Employment rate (% population aged 25-54)	79.2	79.8	80.6	79.8	79.0	79.8	80.6	82.0	82.4	84.6	82.9
9. Employment rate (% population aged 55-64)	45.8	46.6	49.7	50.4	52.9	53.3	53.5	54.3	52.4	49.8	50.9
10. FTE employment rate (% population aged 15-64)	:	62.2	63.0	63.1	61.8	61.9	62.3	62.7	62.9	63.9	62.4
11. Self-employed (% total employment)	4.3	4.2	3.6	3.9	4.1	3.8	3.8	4.0	3.5	3.3	3.5
12. Part-time employment (% total employment)	34.7	34.1	31.6	30.3	32.7	33.8	33.0	35.4	36.2	36.5	37.9
13. Fixed term contracts (% total employees)	10.7	11.1	10.7	10.3	10.4	10.3	11.3	10.0	10.0	9.1	9.6
14. Employment in Services (% total employment)	85.7	85.9	86.3	86.5	87.5	87.9	87.7	88.3	87.5	87.8	88.7
15. Employment in Industry (% total employment)	12.7	12.3	12.1	11.9	11.0	10.7	10.7	10.3	11.1	11.0	10.0
16. Employment in Agriculture (% total employment)	1.6	1.9	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.2	1.3
17. Activity rate (% population aged 15-64)	76.1	75.6	75.9	75.5	75.1	76.2	75.9	77.0	76.4	77.1	77.3
18. Activity rate (% of population aged 15-24)	69.7	67.8	65.8	66.4	63.5	66.0	66.2	69.3	69.4	71.7	70.7
19. Activity rate (% of population aged 25-54)	84.1	84.0	84.4	83.7	83.7	84.8	84.5	85.4	85.4	87.0	87.0
20. Activity rate (% of population aged 55-64)	48.9	49.0	51.9	52.9	55.9	56.5	56.8	56.7	54.6	51.5	53.0
21. Total unemployment (000)	77	63	67	66	81	81	72	62	57	51	75
22. Unemployment rate (% labour force 15+)	5.8	4.8	5.0	5.0	6.1	6.0	5.3	4.5	4.2	3.7	5.4
23. Youth unemployment rate (% labour force 15-24)	8.9	5.7	8.5	7.5	9.2	7.4	8.6	7.5	7.5	8.4	9.9
24. Long term unemployment rate (% labour force)	1.3	1.1	1.0	1.0	1.0	1.3	1.2	0.9	0.7	0.5	0.5
25. Youth unemployment ratio (% population aged 15-24)	7.0	4.5	5.8	5.0	5.9	4.9	5.7	5.2	5.2	6.0	7.0

Labour market indicators: Germany

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	80 962	81 132	81 345	81 558	81 598	81 589	81 529	81 489	81 363	81 265	80 967
2. Population aged 15-64	55 145	55 062	54 973	54 852	54 675	54 450	54 765	54 533	54 226	54 066	53 763
3. Total employment (000)	38 425	39 145	39 315	39 092	38 724	38 883	38 836	39 074	39 724	40 278	40 267
4. Population in employment aged 15-64	35 931	36 105	36 179	35 883	35 512	35 413	36 138	36 833	37 612	38 239	38 131
5. Employment rate (% population aged 15-64)	65.2	65.6	65.8	65.4	65.0	65.0	66.0	67.5	69.4	70.7	70.9
6. Employment rate (% population aged 20-64)	68.3	68.8	69.1	68.8	68.4	68.8	69.9	71.6	73.4	74.6	74.8
7. Employment rate (% population aged 15-24)	47.2	47.2	47.0	45.7	44.2	41.9	42.2	43.4	45.3	46.9	46.2
8. Employment rate (% population aged 25-54)	78.7	79.3	79.3	78.7	77.9	78.1	78.2	79.4	80.9	81.8	81.6
9. Employment rate (% population aged 55-64)	37.8	37.6	37.9	38.9	39.9	41.8	45.4	48.4	51.5	53.8	56.2
10. FTE employment rate (% population aged 15-64)	.	58.6	58.6	58.1	57.5	56.6	57.0	58.4	59.9	61.2	61.4
11. Self-employed (% total employment)	10.0	10.0	10.1	10.2	10.5	10.9	11.2	11.2	11.2	11.0	11.0
12. Part-time employment (% total employment)	19.0	19.4	20.3	20.8	21.7	22.3	24.0	25.8	26.0	25.9	26.1
13. Fixed term contracts (% total employees)	13.1	12.7	12.4	12.0	12.2	12.4	14.1	14.5	14.6	14.7	14.5
14. Employment in Services (% total employment)	68.0	68.7	69.3	70.1	70.7	71.3	71.9	72.3	72.4	72.5	73.0
15. Employment in Industry (% total employment)	29.5	28.9	28.3	27.6	27.0	26.4	25.9	25.6	25.5	25.4	24.9
16. Employment in Agriculture (% total employment)	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.1	2.1
17. Activity rate (% population aged 15-64)	71.2	71.1	71.5	71.7	72.1	72.6	74.3	75.3	76.0	76.5	76.9
18. Activity rate (% of population aged 15-24)	51.6	51.5	51.3	50.7	50.0	48.0	49.9	50.3	51.4	52.5	52.0
19. Activity rate (% of population aged 25-54)	85.2	85.3	85.5	85.6	86.0	86.5	87.1	87.6	87.8	87.9	88.0
20. Activity rate (% of population aged 55-64)	43.7	42.9	42.9	43.9	45.5	47.8	52.1	55.2	57.5	58.8	61.1
21. Total unemployment (000)	3 403	3 137	3 193	3 523	3 918	4 160	4 601	4 227	3 602	3 141	3 227
22. Unemployment rate (% labour force 15+)	8.2	7.5	7.6	8.4	9.3	9.8	10.7	9.8	8.4	7.3	7.5
23. Youth unemployment rate (% labour force 15-24)	8.1	7.5	7.7	9.1	9.8	11.9	14.2	12.8	11.1	9.9	10.4
24. Long term unemployment rate (% labour force)	4.2	3.8	3.8	4.0	4.6	5.5	5.7	5.5	4.7	3.8	3.4
25. Youth unemployment ratio (% population aged 15-24)	4.5	4.3	4.2	5.0	5.8	6.0	7.7	6.9	6.1	5.5	5.8

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	39 501	39 593	39 736	39 877	39 931	39 947	39 938	39 952	39 904	39 857	39 738
2. Population aged 15-64	27 813	27 751	27 715	27 642	27 549	27 451	27 559	27 479	27 297	27 213	27 055
3. Total employment (000)	21 679	21 972	21 954	21 649	21 340	21 397	21 159	21 267	21 575	21 827	21 649
4. Population in employment aged 15-64	20 245	20 230	20 175	19 845	19 540	19 434	19 643	20 005	20 382	20 667	20 442
5. Employment rate (% population aged 15-64)	72.8	72.9	72.8	71.8	70.9	70.8	71.3	72.8	74.7	75.9	75.6
6. Employment rate (% population aged 20-64)	76.4	76.5	76.5	75.6	74.7	74.9	75.6	77.2	79.2	80.2	79.7
7. Employment rate (% population aged 15-24)	49.8	49.7	49.3	46.9	45.4	43.6	43.7	45.1	46.9	48.8	47.6
8. Employment rate (% population aged 25-54)	86.9	87.2	86.9	85.6	84.3	83.9	83.7	84.9	86.4	87.2	86.2
9. Employment rate (% population aged 55-64)	46.8	46.4	46.5	47.3	48.2	50.7	53.5	56.4	59.7	61.8	63.9
10. FTE employment rate (% population aged 15-64)	.	71.1	70.9	69.9	68.9	67.8	68.7	69.7	71.4	72.7	72.2
11. Self-employed (% total employment)	12.2	12.1	12.1	12.4	12.8	13.3	13.5	13.5	13.4	13.3	13.6
12. Part-time employment (% total employment)	4.9	5.0	5.3	5.8	6.1	6.5	7.8	9.3	9.4	9.4	9.7
13. Fixed term contracts (% total employees)	12.8	12.5	12.2	11.8	12.1	12.7	14.4	14.7	14.7	14.7	14.4
14. Employment in Services (% total employment)	56.5	57.3	58.0	58.7	59.4	60.2	60.9	61.4	61.3	62.3	62.9
15. Employment in Industry (% total employment)	40.7	39.9	39.2	38.5	37.8	37.0	36.4	35.9	36.0	35.1	34.6
16. Employment in Agriculture (% total employment)	2.9	2.8	2.8	2.8	2.8	2.8	2.7	2.7	2.7	2.6	2.6
17. Activity rate (% population aged 15-64)	79.2	78.9	79.0	78.8	79.1	79.2	80.6	81.3	81.8	82.1	82.3
18. Activity rate (% of population aged 15-24)	54.9	54.7	54.3	53.1	52.7	50.8	52.5	52.9	53.7	54.8	54.4
19. Activity rate (% of population aged 25-54)	93.6	93.4	93.5	93.2	93.2	93.0	93.6	93.8	93.8	93.6	93.4
20. Activity rate (% of population aged 55-64)	53.7	52.4	52.2	53.0	54.9	57.8	61.2	64.0	66.1	67.3	69.4
21. Total unemployment (000)	1 830	1 698	1 761	1 985	2 227	2 354	2 590	2 337	1 939	1 690	1 835
22. Unemployment rate (% labour force 15+)	8.1	7.5	7.8	8.8	9.8	10.3	11.2	10.2	8.5	7.4	8.0
23. Youth unemployment rate (% labour force 15-24)	9.6	8.8	9.5	11.4	12.1	13.7	15.8	14.2	12.2	10.7	11.9
24. Long term unemployment rate (% labour force)	4.0	3.7	3.7	4.1	4.7	5.7	6.0	5.7	4.8	3.9	3.6
25. Youth unemployment ratio (% population aged 15-24)	5.1	5.0	5.0	6.2	7.2	7.2	8.8	7.8	6.8	6.1	6.8

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	41 461	41 539	41 610	41 681	41 668	41 642	41 590	41 537	41 460	41 408	41 229
2. Population aged 15-64	27 332	27 311	27 258	27 210	27 126	26 999	27 206	27 054	26 929	26 854	26 708
3. Total employment (000)	16 746	17 173	17 361	17 443	17 384	17 486	17 678	17 807	18 150	18 451	18 618
4. Population in employment aged 15-64	15 686	15 876	16 004	16 038	15 972	15 979	16 495	16 828	17 230	17 572	17 689
5. Employment rate (% population aged 15-64)	57.4	58.1	58.7	58.9	58.9	59.2	60.6	62.2	64.0	65.4	66.2
6. Employment rate (% population aged 20-64)	60.2	60.9	61.5	61.9	61.9	62.6	64.2	65.8	67.5	69.0	69.8
7. Employment rate (% population aged 15-24)	44.5	44.6	44.7	44.5	43.0	40.2	40.7	41.6	43.5	45.0	44.7
8. Employment rate (% population aged 25-54)	70.3	71.2	71.6	71.6	71.4	72.1	72.5	73.7	75.2	76.3	76.9
9. Employment rate (% population aged 55-64)	28.8	29.0	29.4	30.6	31.6	33.0	37.5	40.6	43.6	46.1	48.7
10. FTE employment rate (% population aged 15-64)	.	46.1	46.5	46.4	46.2	45.5	45.7	47.3	48.6	50.0	50.7
11. Self-employed (% total employment)	7.2	7.3	7.6	7.6	7.7	7.9	8.5	8.5	8.6	8.3	7.9
12. Part-time employment (% total employment)	37.2	37.9	39.3	39.5	40.8	41.6	43.5	45.6	45.8	45.4	45.3
13. Fixed term contracts (% total employees)	13.4	13.1	12.7	12.2	12.3	12.2	13.8	14.1	14.5	14.6	14.6
14. Employment in Services (% total employment)	82.2	82.7	83.0	83.5	84.0	84.3	84.6	84.8	85.1	85.0	85.3
15. Employment in Industry (% total employment)	15.8	15.4	15.2	14.7	14.3	14.1	13.8	13.7	13.4	13.4	13.1
16. Employment in Agriculture (% total employment)	2.0	1.9	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.6	1.6
17. Activity rate (% population aged 15-64)	63.0	63.3	63.8	64.4	65.1	65.8	68.0	69.3	70.1	70.8	71.4
18. Activity rate (% of population aged 15-24)	48.3	48.2	48.1	48.3	47.3	45.0	47.3	47.6	49.0	50.0	49.6
19. Activity rate (% of population aged 25-54)	76.6	76.9	77.4	77.9	78.6	79.7	80.6	81.4	81.8	82.1	82.5
20. Activity rate (% of population aged 55-64)	33.7	33.5	33.6	34.8	36.2	37.8	43.1	46.6	49.1	50.6	53.0
21. Total unemployment (000)	1 573	1 440	1 432	1 539	1 691	1 806	2 011	1 890	1 663	1 452	1 393
22. Unemployment rate (% labour force 15+)	8.4	7.5	7.4	7.9	8.7	9.1	10.1	9.5	8.3	7.2	6.9
23. Youth unemployment rate (% labour force 15-24)	6.7	6.2	5.9	6.7	7.4	10.0	12.4	11.3	10.0	9.0	8.7
24. Long term unemployment rate (% labour force)	4.5	4.0	3.8	4.0	4.5	5.2	5.3	5.3	4.7	3.7	3.2
25. Youth unemployment ratio (% population aged 15-24)	3.8	3.6	3.4	3.8	4.3	4.9	6.6	6.0	5.4	5.0	4.8

LFS indicators: 2005 break in series.

Labour market indicators: Estonia

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 374	1 366	1 361	1 356	1 350	1 348	1 343	1 339	1 338	1 336	1 336
2. Population aged 15-64	914	916	916	912	911	910	910	913	909	907	906
3. Total employment (000)	581	572	577	584	592	592	604	637	641	643	579
4. Population in employment aged 15-64	562	554	559	566	573	573	586	621	631	634	576
5. Employment rate (% population aged 15-64)	61.5	60.4	61.0	62.0	62.9	63.0	64.4	68.1	69.4	69.8	63.5
6. Employment rate (% population aged 20-64)	68.5	67.4	67.8	69.2	70.0	70.6	72.0	75.8	76.8	77.0	69.9
7. Employment rate (% population aged 15-24)	30.1	28.3	28.1	28.2	29.3	27.2	29.1	31.6	34.5	36.4	28.9
8. Employment rate (% population aged 25-54)	76.7	75.6	76.0	76.8	77.8	78.8	79.6	84.2	84.8	83.9	76.4
9. Employment rate (% population aged 55-64)	47.5	46.3	48.5	51.6	52.3	52.4	56.1	58.5	60.0	62.4	60.4
10. FTE employment rate (% population aged 15-64)	:	59.5	59.9	60.9	61.3	61.8	63.1	66.7	67.7	68.3	61.5
11. Self-employed (% total employment)	8.6	9.0	8.2	8.1	8.9	9.6	8.1	8.1	9.1	7.8	8.2
12. Part-time employment (% total employment)	8.1	8.1	8.2	7.7	8.5	8.0	7.8	7.8	8.2	7.2	10.5
13. Fixed term contracts (% total employees)	2.5	3.0	2.5	2.7	2.5	2.6	2.7	2.7	2.1	2.4	2.5
14. Employment in Services (% total employment)	60.0	59.7	60.4	61.9	61.6	59.5	61.0	62.0	60.7	61.4	64.8
15. Employment in Industry (% total employment)	32.0	33.2	32.8	31.2	32.3	34.7	33.7	33.1	34.6	34.7	31.1
16. Employment in Agriculture (% total employment)	8.0	7.1	6.8	6.9	6.1	5.8	5.3	4.9	4.7	3.9	4.1
17. Activity rate (% population aged 15-64)	70.4	70.2	70.0	69.3	70.1	70.0	70.1	72.4	72.9	74.0	74.0
18. Activity rate (% of population aged 15-24)	38.9	37.4	36.5	34.2	36.9	34.7	34.6	35.9	38.3	41.4	39.9
19. Activity rate (% of population aged 25-54)	87.1	87.0	86.3	85.4	85.7	86.5	86.0	89.1	88.5	88.1	87.8
20. Activity rate (% of population aged 55-64)	51.3	51.3	53.2	55.7	56.3	55.7	59.0	61.0	62.2	65.1	66.7
21. Total unemployment (000)	:	90	83	67	66	64	52	41	32	38	95
22. Unemployment rate (% labour force 15+)	:	13.6	12.6	10.3	10.0	9.7	7.9	5.9	4.7	5.5	13.8
23. Youth unemployment rate (% labour force 15-24)	:	24.4	23.2	17.6	20.6	21.7	15.9	12.0	10.0	12.0	27.5
24. Long term unemployment rate (% labour force)	5.0	6.3	6.1	5.4	4.6	5.0	4.2	2.9	2.3	1.7	3.8
25. Youth unemployment ratio (% population aged 15-24)	8.7	9.1	8.5	6.0	7.6	7.5	5.5	4.3	3.8	5.0	11.0

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	632	628	627	624	621	619	616	616	615	613	613
2. Population aged 15-64	434	438	439	435	435	433	434	437	436	435	435
3. Total employment (000)	294	291	293	297	302	298	299	318	323	324	280
4. Population in employment aged 15-64	286	282	285	289	292	288	291	311	319	320	279
5. Employment rate (% population aged 15-64)	65.8	64.3	65.0	66.5	67.2	66.4	67.0	71.0	73.2	73.6	64.1
6. Employment rate (% population aged 20-64)	73.4	72.4	72.7	74.5	75.0	74.7	75.4	79.5	81.4	81.7	71.0
7. Employment rate (% population aged 15-24)	34.9	31.7	33.9	34.6	35.9	32.8	33.1	37.0	38.9	39.5	30.8
8. Employment rate (% population aged 25-54)	78.6	78.4	78.7	80.3	81.0	81.6	81.9	87.5	89.7	88.5	77.4
9. Employment rate (% population aged 55-64)	58.9	55.9	56.7	58.4	58.9	56.4	59.3	57.5	59.4	65.2	59.4
10. FTE employment rate (% population aged 15-64)	:	63.8	65.0	66.5	66.0	65.7	66.4	70.6	72.4	73.0	62.9
11. Self-employed (% total employment)	10.7	11.5	10.9	10.7	11.8	12.9	11.1	11.4	12.7	10.7	11.5
12. Part-time employment (% total employment)	5.9	5.3	5.1	4.8	5.4	5.4	4.9	4.3	4.3	4.1	7.0
13. Fixed term contracts (% total employees)	3.5	4.4	3.3	3.9	3.2	3.5	3.4	3.3	2.7	3.4	3.0
14. Employment in Services (% total employment)	49.0	48.1	48.0	49.8	50.0	48.0	49.1	48.3	46.2	48.5	51.6
15. Employment in Industry (% total employment)	40.6	42.4	42.3	40.7	41.7	44.0	43.7	45.0	47.5	46.2	42.8
16. Employment in Agriculture (% total employment)	10.4	9.6	9.7	9.5	8.3	8.0	7.2	6.6	6.4	5.3	5.6
17. Activity rate (% population aged 15-64)	76.8	75.6	74.9	74.6	75.0	74.4	73.6	75.8	77.5	78.3	77.6
18. Activity rate (% of population aged 15-24)	46.3	42.0	42.4	40.4	43.1	41.6	39.7	41.2	44.2	45.2	45.0
19. Activity rate (% of population aged 25-54)	90.5	90.9	90.2	90.1	89.6	90.1	89.2	92.8	93.6	92.9	91.9
20. Activity rate (% of population aged 55-64)	66.0	63.6	62.5	63.7	64.4	60.7	62.9	61.6	63.7	68.8	67.4
21. Total unemployment (000)	:	50	44	36	34	35	29	21	19	20	59
22. Unemployment rate (% labour force 15+)	:	14.5	12.9	10.8	10.2	10.4	8.8	6.2	5.4	5.8	16.9
23. Youth unemployment rate (% labour force 15-24)	:	24.5	20.1	14.3	16.9	21.2	16.6	10.0	12.1	12.6	31.7
24. Long term unemployment rate (% labour force)	5.5	7.0	6.8	6.3	4.8	5.6	4.2	3.2	2.8	2.0	4.5
25. Youth unemployment ratio (% population aged 15-24)	11.4	10.3	8.5	5.8	7.3	8.8	6.6	4.1	5.3	5.7	14.3

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	742	738	734	732	729	729	727	724	723	723	723
2. Population aged 15-64	480	479	478	478	476	476	476	475	473	472	472
3. Total employment (000)	286	281	283	287	291	295	305	319	319	319	299
4. Population in employment aged 15-64	278	272	274	277	281	286	296	310	312	313	297
5. Employment rate (% population aged 15-64)	57.8	56.9	57.4	57.9	59.0	60.0	62.1	65.3	65.9	66.3	63.0
6. Employment rate (% population aged 20-64)	64.2	62.9	63.4	64.5	65.5	66.8	69.0	72.5	72.5	72.8	68.8
7. Employment rate (% population aged 15-24)	26.0	24.8	21.9	21.6	22.7	21.6	25.1	26.1	30.0	33.2	27.0
8. Employment rate (% population aged 25-54)	74.8	73.1	73.5	73.6	74.8	76.2	77.5	81.1	80.1	79.5	75.5
9. Employment rate (% population aged 55-64)	39.2	39.0	42.1	46.5	47.3	49.4	53.7	59.2	60.5	60.3	61.2
10. FTE employment rate (% population aged 15-64)	:	55.7	55.2	55.9	57.0	58.3	60.0	63.1	63.5	64.0	60.3
11. Self-employed (% total employment)	6.4	6.4	5.4	5.4	5.9	6.3	5.1	4.8	5.5	5.0	5.2
12. Part-time employment (% total employment)	10.4	10.9	11.3	10.7	11.8	10.6	10.6	11.3	12.1	10.4	13.8
13. Fixed term contracts (% total employees)	1.6	1.7	1.8	1.5	1.8	1.8	2.0	2.2	1.6	1.4	2.0
14. Employment in Services (% total employment)	71.3	71.7	73.1	74.4	73.5	71.0	72.5	75.5	75.2	74.8	77.3
15. Employment in Industry (% total employment)	23.1	23.8	23.1	21.4	22.7	25.4	24.0	21.4	21.8	22.8	20.0
16. Employment in Agriculture (% total employment)	5.6	4.5	3.8	4.2	3.8	3.6	3.5	3.1	3.0	2.4	2.7
17. Activity rate (% population aged 15-64)	65.0	65.3	65.5	64.4	65.7	66.0	66.9	69.3	68.7	70.1	70.6
18. Activity rate (% of population aged 15-24)	32.5	32.7	30.3	27.9	30.6	27.8	29.5	30.6	32.3	37.5	34.7
19. Activity rate (% of population aged 25-54)	83.9	83.3	82.7	81.0	82.2	83.2	83.1	85.7	83.7	83.6	83.9
20. Activity rate (% of population aged 55-64)	40.9	42.0	46.0	49.8	50.3	51.9	56.0	60.5	61.0	62.3	66.1
21. Total unemployment (000)	:	41	39	31	32	29	23	19	13	18	37
22. Unemployment rate (% labour force 15+)	:	12.7	12.2	9.7	9.9	8.9	7.1	5.6	3.9	5.3	10.6
23. Youth unemployment rate (% labour force 15-24)	:	24.2	27.6	22.5	26.0	22.4	14.9	14.7	7.1	11.3	22.0
24. Long term unemployment rate (% labour force)	4.4	5.4	5.4	4.5	4.4	4.4	4.2	2.6	1.7	1.4	3.0
25. Youth unemployment ratio (% population aged 15-24)	6.5	7.9	8.4	6.3	8.0	6.2	4.4	4.5	2.3	4.2	7.6

Labour market indicators: Ireland

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	3 753	3 800	3 859	3 926	3 991	4 059	4 149	4 253	4 359	4 440	4 468
2. Population aged 15-64	2 503	2 546	2 601	2 661	2 711	2 761	2 831	2 913	2 993	3 041	3 029
3. Total employment (000)	1 623	1 695	1 748	1 775	1 809	1 870	1 962	2 047	2 122	2 098	1 927
4. Population in employment aged 15-64	1 584	1 660	1 712	1 742	1 776	1 830	1 915	1 999	2 067	2 055	1 873
5. Employment rate (% population aged 15-64)	63.3	65.2	65.8	65.5	65.5	66.3	67.6	68.6	69.1	67.6	61.8
6. Employment rate (% population aged 20-64)	68.8	70.4	71.1	70.7	70.6	71.5	72.6	73.5	73.8	72.3	66.7
7. Employment rate (% population aged 15-24)	49.1	50.4	49.3	47.6	47.5	47.7	48.7	50.0	49.9	45.9	35.4
8. Employment rate (% population aged 25-54)	73.4	75.3	76.3	76.1	75.9	76.8	77.9	78.4	78.7	77.3	72.0
9. Employment rate (% population aged 55-64)	43.7	45.3	46.8	48.0	49.0	49.5	51.6	53.1	53.8	53.7	51.0
10. FTE employment rate (% population aged 15-64)	:	60.7	60.8	60.9	60.6	61.0	62.8	2569.0	64.0	62.3	56.0
11. Self-employed (% total employment)	19.2	18.6	18.1	17.9	17.6	17.6	17.0	16.3	17.0	17.6	17.8
12. Part-time employment (% total employment)	16.4	16.4	16.5	16.5	16.9	16.8	:	:	18.0	18.6	21.2
13. Fixed term contracts (% total employees)	5.1	5.9	5.3	5.3	5.2	4.1	3.7	3.4	7.3	8.5	8.5
14. Employment in Services (% total employment)	63.0	63.5	64.0	65.2	65.9	66.1	66.5	66.5	67.2	68.6	72.6
15. Employment in Industry (% total employment)	28.3	28.8	28.8	27.9	27.5	27.7	27.6	27.8	27.3	25.6	22.1
16. Employment in Agriculture (% total employment)	8.7	7.7	7.2	6.9	6.6	6.2	5.9	5.7	5.5	5.8	5.3
17. Activity rate (% population aged 15-64)	67.1	68.2	68.6	68.6	68.8	69.5	70.8	71.8	72.4	72.0	70.2
18. Activity rate (% of population aged 15-24)	53.7	54.2	53.1	52.0	52.3	52.4	53.3	54.7	54.9	52.5	46.7
19. Activity rate (% of population aged 25-54)	77.3	78.3	78.9	79.1	79.1	79.9	80.9	81.5	82.0	81.6	80.6
20. Activity rate (% of population aged 55-64)	45.4	46.5	48.0	49.3	50.2	50.8	53.1	54.4	55.2	55.5	54.6
21. Total unemployment (000)	96	74	72	83	87	88	90	95	101	141	259
22. Unemployment rate (% labour force 15+)	5.6	4.2	3.9	4.5	4.6	4.5	4.4	4.5	4.6	6.3	11.9
23. Youth unemployment rate (% labour force 15-24)	8.5	6.7	7.2	8.4	8.7	8.7	8.6	8.6	8.9	13.3	24.4
24. Long term unemployment rate (% labour force)	2.4	1.6	1.3	1.3	1.5	1.6	1.5	1.4	1.4	1.7	3.4
25. Youth unemployment ratio (% population aged 15-24)	4.6	3.8	3.8	4.4	4.8	4.7	4.6	4.7	5.0	6.7	11.3

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 864	1 888	1 919	1 951	1 983	2 018	2 067	2 124	2 179	2 215	2 221
2. Population aged 15-64	1 256	1 280	1 307	1 337	1 361	1 387	1 425	1 470	1 511	1 531	1 516
3. Total employment (000)	966	1 004	1 030	1 035	1 050	1 083	1 129	1 177	1 209	1 179	1 043
4. Population in employment aged 15-64	936	976	1 002	1 008	1 024	1 053	1 095	1 142	1 169	1 146	1 005
5. Employment rate (% population aged 15-64)	74.5	76.3	76.6	75.4	75.2	75.9	76.9	77.7	77.4	74.9	66.3
6. Employment rate (% population aged 20-64)	81.4	82.8	83.0	81.8	81.3	82.1	82.8	83.3	82.9	80.4	71.8
7. Employment rate (% population aged 15-24)	52.3	54.2	53.1	50.6	50.5	50.7	51.5	53.6	52.5	46.7	33.0
8. Employment rate (% population aged 25-54)	86.9	88.2	88.6	87.4	87.0	87.8	88.4	88.4	87.7	85.5	77.2
9. Employment rate (% population aged 55-64)	61.7	63.2	64.6	65.0	64.6	65.0	65.7	67.0	67.9	66.1	60.9
10. FTE employment rate (% population aged 15-64)	:	76.1	75.9	74.7	74.4	74.9	76.4	3240.0	76.8	73.8	64.2
11. Self-employed (% total employment)	26.4	25.4	25.3	25.2	24.8	25.0	24.2	23.4	24.5	25.3	26.5
12. Part-time employment (% total employment)	7.2	6.9	6.6	6.5	6.6	6.1	:	:	7.2	7.8	10.5
13. Fixed term contracts (% total employees)	4.1	4.9	4.4	4.5	4.4	3.7	3.1	2.9	6.0	7.2	7.4
14. Employment in Services (% total employment)	50.0	50.5	50.4	51.2	51.8	51.7	51.6	51.3	51.5	54.5	59.9
15. Employment in Industry (% total employment)	37.1	38.0	38.6	38.2	38.1	38.5	39.2	39.8	39.8	36.6	31.6
16. Employment in Agriculture (% total employment)	12.9	11.5	11.0	10.6	10.1	9.8	9.2	8.9	8.7	8.9	8.5
17. Activity rate (% population aged 15-64)	79.1	79.9	79.9	79.2	79.3	79.9	80.6	81.5	81.4	80.7	78.1
18. Activity rate (% of population aged 15-24)	57.2	58.1	57.3	55.7	56.0	55.9	56.6	59.0	58.3	55.2	48.0
19. Activity rate (% of population aged 25-54)	91.8	92.0	91.8	91.2	91.0	91.8	92.1	92.1	91.6	91.3	89.5
20. Activity rate (% of population aged 55-64)	64.2	65.0	66.4	66.7	66.3	66.9	67.7	68.7	69.8	68.6	66.2
21. Total unemployment (000)	58	45	44	51	54	55	54	57	62	94	182
22. Unemployment rate (% labour force 15+)	5.7	4.3	4.1	4.7	4.9	4.8	4.6	4.6	4.9	7.4	14.9
23. Youth unemployment rate (% labour force 15-24)	8.5	6.6	7.5	9.1	9.4	9.1	9.2	8.9	9.8	16.1	31.1
24. Long term unemployment rate (% labour force)	3.0	2.0	1.6	1.8	1.9	2.0	1.9	1.8	1.7	2.3	4.8
25. Youth unemployment ratio (% population aged 15-24)	4.9	4.0	4.3	5.1	5.5	5.2	5.1	5.4	5.8	8.5	14.9

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 890	1 912	1 940	1 975	2 008	2 041	2 081	2 130	2 180	2 225	2 247
2. Population aged 15-64	1 247	1 267	1 293	1 324	1 350	1 375	1 406	1 443	1 482	1 510	1 514
3. Total employment (000)	656	691	718	740	759	787	832	870	913	919	884
4. Population in employment aged 15-64	648	683	710	734	752	777	820	856	898	909	868
5. Employment rate (% population aged 15-64)	52.0	53.9	54.9	55.4	55.7	56.5	58.3	59.3	60.6	60.2	57.4
6. Employment rate (% population aged 20-64)	56.1	57.9	59.1	59.6	59.8	60.8	62.4	63.4	64.5	64.1	61.7
7. Employment rate (% population aged 15-24)	45.7	46.6	45.5	44.5	44.4	44.7	45.9	46.2	47.4	45.0	37.7
8. Employment rate (% population aged 25-54)	60.0	62.4	64.0	64.7	64.8	65.8	67.3	68.3	69.6	69.0	66.8
9. Employment rate (% population aged 55-64)	25.6	27.2	28.7	30.8	33.1	33.7	37.3	39.1	39.6	41.1	41.0
10. FTE employment rate (% population aged 15-64)	:	45.1	45.7	47.0	46.7	47.1	49.2	1886.0	51.2	50.8	48.0
11. Self-employed (% total employment)	8.7	8.6	7.9	7.6	7.6	7.5	7.1	6.7	7.2	7.6	7.6
12. Part-time employment (% total employment)	30.1	30.3	30.7	30.6	31.0	31.5	:	:	32.3	32.4	33.8
13. Fixed term contracts (% total employees)	6.4	7.2	6.2	6.3	6.0	4.6	4.2	3.9	8.6	9.8	9.6
14. Employment in Services (% total employment)	82.1	82.4	83.4	84.8	85.4	85.9	86.8	87.3	88.0	88.0	88.8
15. Employment in Industry (% total employment)	15.5	15.6	14.7	13.5	12.9	12.7	11.9	11.4	10.7	10.5	10.0
16. Employment in Agriculture (% total employment)	2.4	2.1	1.8	1.7	1.7	1.4	1.3	1.3	1.3	1.6	1.2
17. Activity rate (% population aged 15-64)	55.0	56.3	57.1	57.8	58.3	59.0	60.8	61.9	63.3	63.1	62.4
18. Activity rate (% of population aged 15-24)	50.1	50.1	48.8	48.1	48.5	48.8	49.9	50.2	51.5	49.9	45.4
19. Activity rate (% of population aged 25-54)	62.9	64.7	66.0	66.9	67.2	68.0	69.6	70.7	72.2	71.8	71.7
20. Activity rate (% of population aged 55-64)	26.6	27.8	29.4	31.6	33.8	34.4	38.2	40.0	40.4	42.2	42.8
21. Total unemployment (000)	38	30	28	31	33	33	35	38	39	47	77
22. Unemployment rate (% labour force 15+)	5.5	4.1	3.8	4.1	4.1	4.0	4.1	4.2	4.1	4.9	8.0
23. Youth unemployment rate (% labour force 15-24)	8.4	6.8	6.7	7.6	7.8	8.3	7.9	8.2	7.8	10.3	17.3
24. Long term unemployment rate (% labour force)	1.6	0.9	0.8	0.8	0.9	1.0	0.9	0.9	0.9	0.9	1.7
25. Youth unemployment ratio (% population aged 15-24)	4.3	3.5	3.3	3.7	4.1	4.2	4.0	4.0	4.2	4.9	7.8

Labour market indicators: Greece

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	10 437	10 472	10 504	10 542	10 578	10 616	10 657	10 710	10 754	10 780	10 839
2. Population aged 15-64	7 043	7 078	7 099	7 111	7 119	7 129	7 132	7 158	7 208	7 232	7 222
3. Total employment (000)	4 235	4 255	4 261	4 357	4 408	4 504	4 546	4 639	4 702	4 707	4 652
4. Population in employment aged 15-64	3 937	3 996	3 999	4 087	4 181	4 235	4 287	4 365	4 424	4 474	4 423
5. Employment rate (% population aged 15-64)	55.9	56.5	56.3	57.5	58.7	59.4	60.1	61.0	61.4	61.9	61.2
6. Employment rate (% population aged 20-64)	61.4	61.9	61.5	62.5	63.6	64.0	64.6	65.7	66.0	66.5	65.8
7. Employment rate (% population aged 15-24)	27.2	27.6	26.2	26.5	25.3	26.8	25.0	24.2	24.0	23.5	22.9
8. Employment rate (% population aged 25-54)	69.9	70.5	70.6	71.6	72.9	73.5	74.0	75.3	75.6	76.1	75.4
9. Employment rate (% population aged 55-64)	39.3	39.0	38.2	39.2	41.3	39.4	41.6	42.3	42.4	42.8	42.2
10. FTE employment rate (% population aged 15-64)	:	56.1	56.0	57.1	58.4	58.8	59.3	59.9	60.3	60.9	60.1
11. Self-employed (% total employment)	:	39.0	37.9	37.0	36.5	35.7	35.9	35.4	35.1	35.1	35.4
12. Part-time employment (% total employment)	5.8	4.5	4.0	4.4	4.3	4.6	5.0	5.7	5.6	5.6	6.0
13. Fixed term contracts (% total employees)	12.6	13.5	13.2	11.7	11.2	11.9	11.8	10.7	10.9	11.5	12.1
14. Employment in Services (% total employment)	:	63.3	63.9	64.7	65.1	67.5	67.6	68.3	68.5	68.8	69.3
15. Employment in Industry (% total employment)	:	19.8	20.4	20.2	20.3	19.8	19.9	19.6	19.9	19.7	18.9
16. Employment in Agriculture (% total employment)	:	17.0	15.7	15.1	14.6	12.7	12.5	12.0	11.6	11.5	11.8
17. Activity rate (% population aged 15-64)	63.8	63.8	63.3	64.2	65.2	66.5	66.8	67.0	67.0	67.1	67.8
18. Activity rate (% of population aged 15-24)	39.8	39.0	36.5	36.2	34.6	36.7	33.7	32.4	31.1	30.2	30.9
19. Activity rate (% of population aged 25-54)	77.9	78.1	77.8	78.8	79.8	81.1	81.5	82.0	81.9	82.0	82.8
20. Activity rate (% of population aged 55-64)	40.9	40.5	39.9	40.9	42.7	41.3	43.2	43.9	43.9	44.2	44.2
21. Total unemployment (000)	548	517	488	480	460	506	477	435	407	378	471
22. Unemployment rate (% labour force 15+)	12.0	11.2	10.7	10.3	9.7	10.5	9.9	8.9	8.3	7.7	9.5
23. Youth unemployment rate (% labour force 15-24)	31.5	29.1	28.0	26.8	26.8	26.9	26.0	25.2	22.9	22.1	25.8
24. Long term unemployment rate (% labour force)	6.5	6.2	5.5	5.3	5.3	5.6	5.1	4.8	4.1	3.6	3.9
25. Youth unemployment ratio (% population aged 15-24)	12.6	11.4	10.3	9.7	9.3	9.9	8.8	8.2	7.1	6.7	8.0

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 123	5 139	5 154	5 172	5 190	5 207	5 227	5 255	5 285	5 300	5 330
2. Population aged 15-64	3 488	3 507	3 519	3 529	3 537	3 545	3 551	3 570	3 603	3 617	3 615
3. Total employment (000)	2 676	2 678	2 684	2 728	2 747	2 789	2 806	2 842	2 878	2 865	2 804
4. Population in employment aged 15-64	2 480	2 508	2 514	2 550	2 595	2 613	2 636	2 663	2 698	2 713	2 658
5. Employment rate (% population aged 15-64)	71.1	71.5	71.4	72.2	73.4	73.7	74.2	74.6	74.9	75.0	73.5
6. Employment rate (% population aged 20-64)	78.5	78.8	78.3	78.7	79.6	79.5	79.8	80.3	80.4	80.4	78.8
7. Employment rate (% population aged 15-24)	32.4	32.7	30.7	31.5	30.9	32.3	30.1	29.7	29.2	28.5	27.7
8. Employment rate (% population aged 25-54)	88.2	88.5	88.5	88.7	89.3	89.3	89.5	90.0	90.1	90.2	88.4
9. Employment rate (% population aged 55-64)	55.7	55.2	55.3	55.9	58.7	56.4	58.8	59.2	59.1	59.1	57.7
10. FTE employment rate (% population aged 15-64)	:	71.9	71.9	72.8	73.9	74.1	74.4	74.6	75.0	75.2	73.5
11. Self-employed (% total employment)	:	40.7	40.1	39.0	38.5	38.4	38.5	38.2	38.0	37.9	38.5
12. Part-time employment (% total employment)	3.4	2.6	2.2	2.3	2.2	2.2	2.3	2.9	2.7	2.8	3.2
13. Fixed term contracts (% total employees)	11.4	11.8	11.6	10.5	9.7	10.5	10.1	9.1	9.3	9.9	10.6
14. Employment in Services (% total employment)	:	58.5	58.3	59.1	59.4	61.4	61.1	61.7	61.4	62.0	62.5
15. Employment in Industry (% total employment)	:	25.6	26.7	26.6	26.9	26.8	27.2	26.9	27.4	26.9	26.0
16. Employment in Agriculture (% total employment)	:	15.9	15.0	14.3	13.8	11.9	11.7	11.4	11.2	11.1	11.5
17. Activity rate (% population aged 15-64)	77.5	77.4	77.1	77.6	78.3	79.0	79.2	79.1	79.1	79.1	79.0
18. Activity rate (% of population aged 15-24)	42.1	41.7	39.1	39.3	38.1	40.0	37.0	36.1	34.7	34.3	34.4
19. Activity rate (% of population aged 25-54)	94.5	94.4	94.1	94.1	94.3	94.6	94.6	94.7	94.6	94.4	94.4
20. Activity rate (% of population aged 55-64)	57.9	57.3	57.7	58.1	60.6	58.9	60.8	61.0	60.8	60.9	60.1
21. Total unemployment (000)	219	205	198	191	176	188	176	162	151	148	200
22. Unemployment rate (% labour force 15+)	7.9	7.4	7.2	6.8	6.2	6.6	6.1	5.6	5.2	5.1	6.9
23. Youth unemployment rate (% labour force 15-24)	22.9	21.5	21.5	19.9	18.9	19.1	18.7	17.7	15.7	17.0	19.4
24. Long term unemployment rate (% labour force)	3.8	3.5	3.2	3.1	3.0	3.0	2.6	2.6	2.2	2.1	2.4
25. Youth unemployment ratio (% population aged 15-24)	9.7	9.0	8.5	7.8	7.2	7.6	6.9	6.4	5.5	5.8	6.6

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 314	5 333	5 350	5 369	5 388	5 409	5 431	5 455	5 469	5 480	5 509
2. Population aged 15-64	3 555	3 572	3 580	3 582	3 583	3 584	3 581	3 588	3 605	3 615	3 607
3. Total employment (000)	1 559	1 577	1 577	1 629	1 662	1 715	1 740	1 797	1 824	1 842	1 848
4. Population in employment aged 15-64	1 457	1 489	1 485	1 537	1 586	1 621	1 651	1 702	1 725	1 761	1 766
5. Employment rate (% population aged 15-64)	41.0	41.7	41.5	42.9	44.3	45.2	46.1	47.4	47.9	48.7	48.9
6. Employment rate (% population aged 20-64)	44.8	45.5	45.1	46.6	47.9	48.8	49.6	51.2	51.6	52.5	52.7
7. Employment rate (% population aged 15-24)	21.9	22.4	21.7	21.4	19.8	21.3	19.8	18.7	18.7	18.5	18.1
8. Employment rate (% population aged 25-54)	51.9	52.7	52.8	54.5	56.4	57.6	58.5	60.5	60.8	61.9	62.2
9. Employment rate (% population aged 55-64)	24.4	24.3	22.9	24.0	25.5	24.0	25.8	26.6	26.9	27.5	27.7
10. FTE employment rate (% population aged 15-64)	:	40.5	40.5	41.7	43.2	43.8	44.3	45.3	45.7	46.6	46.7
11. Self-employed (% total employment)	:	36.2	34.3	33.7	33.3	31.2	31.7	31.1	30.5	30.8	30.6
12. Part-time employment (% total employment)	10.0	7.8	7.2	8.0	7.7	8.5	9.3	10.2	10.1	9.9	10.4
13. Fixed term contracts (% total employees)	14.4	16.1	15.7	13.6	13.3	14.0	14.3	13.0	13.1	13.7	14.1
14. Employment in Services (% total employment)	:	71.2	73.1	73.9	74.6	77.3	77.9	78.6	79.4	79.6	80.1
15. Employment in Industry (% total employment)	:	10.0	9.9	9.5	9.5	8.8	8.4	8.4	8.3	8.2	7.7
16. Employment in Agriculture (% total employment)	:	18.8	17.0	16.6	15.9	14.0	13.7	13.0	12.3	12.2	12.2
17. Activity rate (% population aged 15-64)	50.3	50.5	49.7	51.0	52.2	54.1	54.5	55.0	54.9	55.1	56.5
18. Activity rate (% of population aged 15-24)	37.5	36.2	33.8	33.1	31.2	33.4	30.4	28.7	27.6	26.1	27.4
19. Activity rate (% of population aged 25-54)	61.5	62.0	61.7	63.4	65.2	67.6	68.2	69.1	69.1	69.4	71.0
20. Activity rate (% of population aged 55-64)	25.5	25.4	23.9	25.2	26.4	25.2	27.1	28.0	28.2	28.6	29.3
21. Total unemployment (000)	328	312	290	289	284	318	302	272	256	230	271
22. Unemployment rate (% labour force 15+)	18.1	17.1	16.1	15.7	15.0	16.2	15.3	13.6	12.8	11.4	13.2
23. Youth unemployment rate (% labour force 15-24)	41.4	38.1	35.8	35.3	36.6	36.3	34.8	34.7	32.1	28.9	33.9
24. Long term unemployment rate (% labour force)	10.7	10.1	9.0	8.6	8.9	9.4	8.9	8.1	7.0	6.0	6.0
25. Youth unemployment ratio (% population aged 15-24)	15.6	13.8	12.1	11.7	11.4	12.1	10.6	9.9	8.8	7.5	9.3

Labour market indicators: Spain

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	39 555	39 927	40 427	41 063	41 753	42 440	43 141	43 835	44 630	45 329	45 671
2. Population aged 15-64	27 085	27 373	27 742	28 231	28 729	29 227	29 755	30 255	30 808	31 252	31 349
3. Total employment (000)	15 617	16 412	16 931	17 338	17 878	18 510	19 267	20 022	20 627	20 502	19 134
4. Population in employment aged 15-64	14 583	15 399	16 039	16 527	17 188	17 861	18 834	19 600	20 211	20 103	18 736
5. Employment rate (% population aged 15-64)	53.8	56.3	57.8	58.5	59.8	61.1	63.3	64.8	65.6	64.3	59.8
6. Employment rate (% population aged 20-64)	58.3	60.7	62.1	62.7	64.0	65.2	67.2	68.7	69.5	68.3	63.7
7. Employment rate (% population aged 15-24)	30.5	32.5	34.0	34.0	34.4	35.2	38.3	39.5	39.1	36.0	28.0
8. Employment rate (% population aged 25-54)	66.2	68.4	69.5	70.2	71.4	72.7	74.4	75.8	76.8	75.3	70.7
9. Employment rate (% population aged 55-64)	35.0	37.0	39.2	39.6	40.7	41.3	43.1	44.1	44.6	45.6	44.1
10. FTE employment rate (% population aged 15-64)	:	53.9	55.4	56.2	57.3	58.3	59.4	60.8	61.7	60.5	55.8
11. Self-employed (% total employment)	16.3	15.8	15.6	15.4	15.0	14.8	14.6	14.2	13.9	13.9	13.7
12. Part-time employment (% total employment)	8.0	7.9	8.0	8.0	8.2	8.7	12.4	12.0	11.8	12.0	12.8
13. Fixed term contracts (% total employees)	32.9	32.2	32.2	31.8	31.8	32.5	33.3	34.0	31.7	29.3	25.4
14. Employment in Services (% total employment)	63.8	63.8	63.8	64.2	64.7	65.1	65.5	66.4	66.9	68.5	71.4
15. Employment in Industry (% total employment)	29.6	29.9	30.1	29.9	29.7	29.5	29.3	28.9	28.6	27.2	24.1
16. Employment in Agriculture (% total employment)	6.6	6.3	6.1	5.9	5.7	5.4	5.2	4.7	4.5	4.3	4.4
17. Activity rate (% population aged 15-64)	63.9	65.4	64.7	66.2	67.6	68.7	69.7	70.8	71.6	72.6	73.0
18. Activity rate (% of population aged 15-24)	43.1	43.9	43.0	43.7	44.5	45.1	47.7	48.2	47.8	47.7	45.1
19. Activity rate (% of population aged 25-54)	76.9	78.0	76.6	78.2	79.6	80.6	80.9	82.0	82.8	83.8	84.7
20. Activity rate (% of population aged 55-64)	38.8	40.9	41.9	42.7	43.8	44.4	45.9	46.8	47.4	49.2	50.2
21. Total unemployment (000)	2 159	1 980	1 877	2 095	2 174	2 144	1 913	1 837	1 834	2 591	4 150
22. Unemployment rate (% labour force 15+)	12.5	11.1	10.3	11.1	11.1	10.6	9.2	8.5	8.3	11.3	18.0
23. Youth unemployment rate (% labour force 15-24)	27.3	24.3	23.2	24.2	24.6	23.9	19.7	17.9	18.2	24.6	37.8
24. Long term unemployment rate (% labour force)	5.7	4.6	3.7	3.7	3.7	3.4	2.2	1.8	1.7	2.0	4.3
25. Youth unemployment ratio (% population aged 15-24)	12.7	11.4	9.1	9.7	10.1	9.9	9.4	8.6	8.7	11.7	17.1

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	19 338	19 545	19 825	20 172	20 532	20 894	21 268	21 641	22 062	22 412	22 569
2. Population aged 15-64	13 514	13 693	13 908	14 185	14 456	14 727	15 019	15 292	15 596	15 816	15 855
3. Total employment (000)	10 029	10 395	10 644	10 806	11 011	11 262	11 565	11 906	12 147	11 862	10 785
4. Population in employment aged 15-64	9 364	9 749	10 077	10 296	10 583	10 864	11 294	11 642	11 888	11 624	10 555
5. Employment rate (% population aged 15-64)	69.3	71.2	72.5	72.6	73.2	73.8	75.2	76.1	76.2	73.5	66.6
6. Employment rate (% population aged 20-64)	75.2	76.9	77.8	77.7	78.3	78.7	79.9	80.7	80.7	78.1	71.0
7. Employment rate (% population aged 15-24)	36.2	38.2	40.2	39.7	39.9	40.8	43.5	44.4	44.2	39.3	29.4
8. Employment rate (% population aged 25-54)	84.5	85.7	85.9	85.7	85.9	86.1	86.9	87.6	87.6	84.4	77.3
9. Employment rate (% population aged 55-64)	52.2	54.9	57.7	58.4	59.2	58.9	59.7	60.4	60.0	60.9	56.7
10. FTE employment rate (% population aged 15-64)	:	70.4	71.9	72.1	72.6	73.0	73.7	74.6	74.8	72.1	65.0
11. Self-employed (% total employment)	17.7	17.4	17.3	17.3	16.9	16.8	16.6	16.4	16.2	16.4	16.3
12. Part-time employment (% total employment)	2.9	2.8	2.8	2.6	2.6	2.8	4.5	4.3	4.1	4.2	4.9
13. Fixed term contracts (% total employees)	31.6	30.9	30.6	29.9	29.9	30.6	31.7	32.0	30.6	27.6	23.8
14. Employment in Services (% total employment)	52.9	52.8	52.4	52.7	52.7	52.6	52.7	53.0	53.4	57.3	60.8
15. Employment in Industry (% total employment)	39.3	39.7	40.3	40.2	40.5	40.8	41.0	41.3	41.0	37.5	33.7
16. Employment in Agriculture (% total employment)	7.8	7.5	7.3	7.1	6.8	6.6	6.4	5.8	5.6	5.2	5.6
17. Activity rate (% population aged 15-64)	77.9	78.8	78.4	79.1	80.0	80.4	80.9	81.3	81.4	81.8	81.0
18. Activity rate (% of population aged 15-24)	47.2	48.0	48.2	48.8	49.5	50.2	52.3	52.2	52.1	51.5	48.3
19. Activity rate (% of population aged 25-54)	93.0	93.1	91.7	92.1	92.5	92.5	92.4	92.5	92.6	92.6	92.3
20. Activity rate (% of population aged 55-64)	57.6	60.2	61.2	62.1	62.9	62.7	63.2	63.5	63.1	65.1	64.0
21. Total unemployment (000)	956	859	822	914	959	952	863	792	815	1 311	2 292
22. Unemployment rate (% labour force 15+)	9.0	7.9	7.5	8.1	8.2	8.0	7.1	6.3	6.4	10.1	17.7
23. Youth unemployment rate (% labour force 15-24)	20.5	18.1	17.3	19.2	20.2	19.4	16.7	15.0	15.2	23.7	39.1
24. Long term unemployment rate (% labour force)	3.6	2.8	2.3	2.3	2.4	2.2	1.4	1.2	1.1	1.4	3.7
25. Youth unemployment ratio (% population aged 15-24)	11.0	9.8	8.0	9.0	9.7	9.4	8.7	7.8	7.9	12.2	18.9

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	20 217	20 382	20 602	20 891	21 221	21 547	21 873	22 193	22 569	22 917	23 102
2. Population aged 15-64	13 571	13 681	13 834	14 046	14 273	14 500	14 736	14 963	15 212	15 436	15 494
3. Total employment (000)	5 588	6 017	6 287	6 532	6 867	7 248	7 702	8 116	8 480	8 640	8 349
4. Population in employment aged 15-64	5 219	5 650	5 962	6 230	6 605	6 997	7 540	7 958	8 323	8 479	8 181
5. Employment rate (% population aged 15-64)	38.5	41.3	43.1	44.4	46.3	48.3	51.2	53.2	54.7	54.9	52.8
6. Employment rate (% population aged 20-64)	41.6	44.5	46.3	47.6	49.5	51.5	54.4	56.4	58.0	58.3	56.3
7. Employment rate (% population aged 15-24)	24.6	26.7	27.5	28.0	28.6	29.3	32.8	34.4	33.8	32.5	26.5
8. Employment rate (% population aged 25-54)	47.9	51.0	52.9	54.4	56.6	58.9	61.5	63.7	65.6	65.9	63.8
9. Employment rate (% population aged 55-64)	18.9	20.2	21.7	21.9	23.3	24.6	27.4	28.7	30.0	31.1	32.3
10. FTE employment rate (% population aged 15-64)	:	37.5	38.9	40.3	41.9	43.5	45.0	47.0	48.5	48.7	46.7
11. Self-employed (% total employment)	13.6	13.1	12.9	12.3	11.9	11.8	11.6	11.0	10.6	10.5	10.3
12. Part-time employment (% total employment)	17.1	16.8	16.8	16.8	17.1	17.9	24.2	23.2	22.8	22.7	23.0
13. Fixed term contracts (% total employees)	35.0	34.2	34.7	34.8	34.6	35.2	35.7	36.7	33.1	31.4	27.3
14. Employment in Services (% total employment)	82.6	82.0	82.5	82.7	83.4	84.0	84.5	85.7	85.9	85.4	86.7
15. Employment in Industry (% total employment)	12.9	13.6	13.3	13.3	12.7	12.4	12.0	11.1	11.2	11.6	10.5
16. Employment in Agriculture (% total employment)	4.5	4.4	4.2	4.0	3.9	3.6	3.5	3.2	2.9	2.9	2.8
17. Activity rate (% population aged 15-64)	50.0	52.0	50.9	53.1	55.1	56.8	58.3	60.2	61.4	63.2	64.8
18. Activity rate (% of population aged 15-24)	39.0	39.7	37.7	38.5	39.2	39.8	42.9	43.9	43.3	43.7	41.7
19. Activity rate (% of population aged 25-54)	60.7	62.8	61.3	64.1	66.5	68.3	69.0	71.2	72.7	74.7	76.7
20. Activity rate (% of population aged 55-64)	21.2	22.7	23.7	24.4	25.7	27.2	29.6	31.0	32.5	34.2	37.2
21. Total unemployment (000)	1 203	1 121	1 055	1 181	1 215	1 192	1 050	1 046	1 019	1 280	1 857
22. Unemployment rate (% labour force 15+)	18.0	16.0	14.8	15.7	15.3	14.3	12.2	11.6	10.9	13.0	18.4
23. Youth unemployment rate (% labour force 15-24)	36.3	32.5	31.2	31.1	30.8	30.1	23.4	21.6	21.9	25.8	36.4
24. Long term unemployment rate (% labour force)	9.0	7.4	6.0	5.9	5.7	5.0	3.4	2.8	2.5	2.9	5.0
25. Youth unemployment ratio (% population aged 15-24)	14.4	13.0	10.1	10.5	10.6	10.5	10.1	9.5	9.5	11.3	15.1

LFS indicators: 2005 break in series.

Labour market indicators: France

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	56 943	57 326	57 726	57 987	58 857	59 274	59 703	60 092	60 426	60 752	61 059
2. Population aged 15-64	37 172	37 430	37 682	37 825	38 426	38 699	39 009	39 300	39 525	39 688	39 813
3. Total employment (000)	23 697	24 332	24 765	24 919	24 950	24 977	25 116	25 362	25 729	25 883	25 559
4. Population in employment aged 15-64	22 645	23 237	23 659	23 840	24 587	24 688	24 862	25 027	25 432	25 772	25 567
5. Employment rate (% population aged 15-64)	60.9	62.1	62.8	63.0	64.0	63.8	63.7	63.7	64.3	64.9	64.2
6. Employment rate (% population aged 20-64)	66.6	67.8	68.5	68.7	69.7	69.6	69.4	69.3	69.9	70.4	69.6
7. Employment rate (% population aged 15-24)	27.1	28.6	29.5	29.9	31.2	30.7	30.5	30.2	31.5	32.0	31.4
8. Employment rate (% population aged 25-54)	77.7	78.8	79.4	79.5	80.4	80.5	80.7	81.2	82.0	83.1	82.1
9. Employment rate (% population aged 55-64)	28.8	29.9	31.9	34.7	37.0	37.8	38.5	38.1	38.2	38.2	38.9
10. FTE employment rate (% population aged 15-64)	.	58.7	59.9	60.4	59.7	59.3	59.4	59.3	60.0	60.7	59.9
11. Self-employed (% total employment)	9.5	9.2	8.9	8.8	8.8	8.8	8.9	8.9	8.9	8.9	9.1
12. Part-time employment (% total employment)	17.1	16.7	16.3	16.4	16.6	16.8	17.2	17.2	17.3	16.9	17.3
13. Fixed term contracts (% total employees)	14.5	15.2	14.6	13.5	13.5	13.5	14.1	14.1	14.4	14.2	13.5
14. Employment in Services (% total employment)	73.8	74.2	74.4	74.9	75.3	75.8	76.0	76.3	76.5	76.7	77.2
15. Employment in Industry (% total employment)	22.1	21.9	21.7	21.4	21.0	20.6	20.4	20.3	20.2	20.1	19.7
16. Employment in Agriculture (% total employment)	4.1	3.9	3.8	3.7	3.7	3.6	3.6	3.5	3.3	3.2	3.1
17. Activity rate (% population aged 15-64)	68.7	68.7	68.7	69.1	69.9	70.0	70.0	69.9	70.0	70.1	70.7
18. Activity rate (% of population aged 15-24)	35.7	35.6	36.2	36.9	38.2	38.3	38.3	38.4	38.9	39.2	40.6
19. Activity rate (% of population aged 25-54)	86.4	86.3	86.1	86.3	87.0	87.3	87.5	87.8	88.2	88.7	88.9
20. Activity rate (% of population aged 55-64)	31.2	32.1	33.8	36.7	39.0	40.1	40.7	40.4	40.2	40.0	41.5
21. Total unemployment (000)	2 711	2 385	2 226	2 334	2 477	2 579	2 599	2 608	2 382	2 235	2 754
22. Unemployment rate (% labour force 15+)	10.4	9.0	8.3	8.6	9.0	9.3	9.3	9.2	8.4	7.8	9.5
23. Youth unemployment rate (% labour force 15-24)	22.9	19.6	18.9	19.3	19.2	20.6	21.1	22.1	19.6	19.1	23.3
24. Long term unemployment rate (% labour force)	4.1	3.5	2.9	3.0	3.5	3.8	3.8	3.9	3.4	2.9	3.3
25. Youth unemployment ratio (% population aged 15-24)	8.6	7.0	6.6	7.0	7.0	7.6	7.8	8.2	7.3	7.2	9.2

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	27 575	27 789	28 010	28 152	28 490	28 675	28 865	29 046	29 214	29 383	29 536
2. Population aged 15-64	18 331	18 485	18 631	18 697	18 933	19 060	19 192	19 327	19 436	19 517	19 575
3. Total employment (000)	13 055	13 396	13 605	13 584	13 440	13 410	13 424	13 503	13 609	13 654	13 412
4. Population in employment aged 15-64	12 466	12 786	12 992	12 986	13 232	13 246	13 283	13 318	13 441	13 585	13 404
5. Employment rate (% population aged 15-64)	68.0	69.2	69.7	69.5	69.9	69.5	69.2	68.9	69.2	69.6	68.5
6. Employment rate (% population aged 20-64)	74.2	75.6	76.0	75.6	76.1	75.8	75.3	75.0	75.0	75.5	74.2
7. Employment rate (% population aged 15-24)	30.3	31.9	33.3	33.6	34.4	33.9	33.9	33.7	34.5	34.8	33.5
8. Employment rate (% population aged 25-54)	86.5	87.7	88.1	87.4	87.7	87.6	87.6	87.8	88.2	89.1	87.6
9. Employment rate (% population aged 55-64)	32.3	33.6	36.2	38.7	40.9	41.7	41.5	40.4	40.4	40.5	41.4
10. FTE employment rate (% population aged 15-64)	.	69.1	70.3	70.4	68.2	68.1	67.7	67.4	67.7	68.1	67.0
11. Self-employed (% total employment)	11.5	11.2	10.9	10.9	11.0	11.2	11.4	11.4	11.5	11.3	11.8
12. Part-time employment (% total employment)	5.5	5.3	5.0	5.2	5.4	5.4	5.8	5.8	5.7	5.8	6.0
13. Fixed term contracts (% total employees)	13.7	14.2	13.2	11.9	12.0	12.2	13.3	13.3	13.3	13.0	12.1
14. Employment in Services (% total employment)	63.7	64.1	64.4	64.6	64.9	65.8	65.6	65.4	65.8	67.1	67.3
15. Employment in Industry (% total employment)	31.0	30.9	30.8	30.6	30.3	29.7	29.6	29.9	29.8	28.9	28.7
16. Employment in Agriculture (% total employment)	5.2	5.0	4.9	4.8	4.8	4.6	4.7	4.7	4.5	4.0	4.0
17. Activity rate (% population aged 15-64)	75.3	75.2	75.2	75.5	75.7	75.5	75.3	75.0	74.8	74.8	75.2
18. Activity rate (% of population aged 15-24)	39.2	38.8	39.9	40.9	41.9	41.9	42.0	42.2	42.2	42.7	43.7
19. Activity rate (% of population aged 25-54)	94.4	94.2	94.0	93.8	93.9	94.0	94.0	94.1	94.2	94.4	94.4
20. Activity rate (% of population aged 55-64)	35.1	36.0	38.3	41.2	43.0	44.0	43.8	43.0	42.7	42.6	44.3
21. Total unemployment (000)	1 260	1 076	1 010	1 121	1 197	1 238	1 245	1 261	1 168	1 094	1 398
22. Unemployment rate (% labour force 15+)	8.9	7.5	7.0	7.7	8.1	8.4	8.4	8.4	7.8	7.3	9.2
23. Youth unemployment rate (% labour force 15-24)	21.1	17.6	17.0	17.8	18.7	19.9	20.0	20.9	18.9	19.2	24.0
24. Long term unemployment rate (% labour force)	3.4	2.8	2.4	2.6	3.2	3.3	3.3	3.6	3.2	2.8	3.3
25. Youth unemployment ratio (% population aged 15-24)	8.9	6.9	6.6	7.2	7.4	8.0	8.1	8.5	7.7	7.9	10.2

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	29 368	29 537	29 716	29 835	30 367	30 599	30 838	31 046	31 212	31 370	31 523
2. Population aged 15-64	18 842	18 945	19 051	19 128	19 493	19 639	19 817	19 973	20 088	20 171	20 238
3. Total employment (000)	10 642	10 936	11 160	11 335	11 510	11 567	11 692	11 859	12 121	12 229	12 147
4. Population in employment aged 15-64	10 178	10 451	10 667	10 854	11 354	11 442	11 580	11 710	11 991	12 188	12 163
5. Employment rate (% population aged 15-64)	54.0	55.2	56.0	56.7	58.2	58.3	58.4	58.6	59.7	60.4	60.1
6. Employment rate (% population aged 20-64)	59.2	60.3	61.2	61.9	63.6	63.6	63.7	63.9	64.9	65.6	65.1
7. Employment rate (% population aged 15-24)	23.9	25.3	25.7	26.2	28.0	27.4	27.1	26.7	28.5	29.2	29.3
8. Employment rate (% population aged 25-54)	69.0	70.1	71.1	71.7	73.4	73.7	74.0	74.7	76.1	77.2	76.7
9. Employment rate (% population aged 55-64)	25.4	26.3	27.8	30.8	33.3	34.2	35.7	35.8	36.0	36.0	36.6
10. FTE employment rate (% population aged 15-64)	.	48.7	50.0	50.9	51.8	51.3	51.9	52.0	53.0	53.9	53.4
11. Self-employed (% total employment)	6.9	6.7	6.4	6.3	6.2	6.2	6.1	6.1	6.0	6.2	6.0
12. Part-time employment (% total employment)	31.4	30.8	30.1	29.8	29.5	29.9	30.2	30.3	30.3	29.4	29.8
13. Fixed term contracts (% total employees)	15.4	16.4	16.2	15.3	15.3	14.9	15.1	14.9	15.5	15.4	14.9
14. Employment in Services (% total employment)	85.6	86.1	86.3	86.8	87.1	87.2	87.7	88.4	88.4	88.2	88.8
15. Employment in Industry (% total employment)	11.5	11.2	11.1	10.7	10.5	10.3	10.0	9.5	9.5	9.6	9.1
16. Employment in Agriculture (% total employment)	2.8	2.7	2.6	2.5	2.4	2.5	2.3	2.0	2.1	2.2	2.1
17. Activity rate (% population aged 15-64)	62.3	62.4	62.4	63.0	64.3	64.6	64.8	64.9	65.3	65.6	66.3
18. Activity rate (% of population aged 15-24)	32.3	32.3	32.4	32.9	34.5	34.6	34.6	34.6	35.5	35.7	37.4
19. Activity rate (% of population aged 25-54)	78.6	78.5	78.5	78.9	80.4	80.9	81.3	81.7	82.4	83.1	83.6
20. Activity rate (% of population aged 55-64)	27.5	28.3	29.5	32.3	35.1	36.4	37.7	37.9	37.9	37.6	39.0
21. Total unemployment (000)	1 451	1 310	1 217	1 214	1 280	1 341	1 354	1 347	1 214	1 141	1 356
22. Unemployment rate (% labour force 15+)	12.1	10.8	9.9	9.7	9.9	10.3	10.3	10.1	9.0	8.4	9.8
23. Youth unemployment rate (% labour force 15-24)	25.0	21.9	21.3	21.1	19.8	21.5	22.4	23.6	20.3	19.0	22.5
24. Long term unemployment rate (% labour force)	4.9	4.3	3.6	3.4	3.9	4.2	4.3	4.2	3.6	3.0	3.4
25. Youth unemployment ratio (% population aged 15-24)	8.4	7.0	6.7	6.8	6.6	7.2	7.5	7.9	7.0	6.5	8.1

Labour market indicators: Italy

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	56 906	57 044	57 229	57 382	57 399	57 442	58 077	58 435	58 880	59 336	59 752
2. Population aged 15-64	38 633	38 642	38 645	38 676	38 692	38 292	38 588	38 726	38 946	39 182	39 406
3. Total employment (000)	22 494	22 930	23 393	23 793	24 150	24 256	24 396	24 874	25 187	25 259	24 839
4. Population in employment aged 15-64	20 357	20 753	21 169	21 478	21 710	22 060	22 214	22 619	22 846	23 011	22 650
5. Employment rate (% population aged 15-64)	52.7	53.7	54.8	55.5	56.1	57.6	57.6	58.4	58.7	58.7	57.5
6. Employment rate (% population aged 20-64)	56.4	57.4	58.5	59.4	60.0	61.5	61.6	62.5	62.8	63.0	61.7
7. Employment rate (% population aged 15-24)	25.7	26.4	26.3	25.8	25.2	27.6	25.7	25.5	24.7	24.4	21.7
8. Employment rate (% population aged 25-54)	67.0	68.0	69.2	70.1	70.7	72.2	72.3	73.3	73.5	73.5	71.9
9. Employment rate (% population aged 55-64)	27.6	27.7	28.0	28.9	30.3	30.5	31.4	32.5	33.8	34.4	35.7
10. FTE employment rate (% population aged 15-64)	.	51.7	52.7	53.6	54.3	54.3	54.1	54.8	55.1	55.1	53.9
11. Self-employed (% total employment)	26.4	26.4	26.0	25.5	25.6	25.7	24.7	24.4	24.1	23.6	23.4
12. Part-time employment (% total employment)	7.9	8.4	8.4	8.6	8.5	12.7	12.8	13.3	13.6	14.3	14.3
13. Fixed term contracts (% total employees)	9.5	10.1	9.8	9.9	9.9	11.8	12.3	13.1	13.2	13.3	12.5
14. Employment in Services (% total employment)	65.1	65.8	66.1	66.4	66.8	67.0	67.0	67.3	67.4	67.8	68.3
15. Employment in Industry (% total employment)	29.9	29.4	29.2	29.1	29.0	28.8	28.8	28.5	28.6	28.3	27.7
16. Employment in Agriculture (% total employment)	4.9	4.8	4.7	4.5	4.2	4.2	4.2	4.2	4.0	3.9	3.9
17. Activity rate (% population aged 15-64)	59.6	60.1	60.6	61.1	61.5	62.7	62.5	62.7	62.5	63.0	62.4
18. Activity rate (% of population aged 15-24)	38.3	38.4	36.6	35.5	34.6	36.1	33.8	32.5	30.9	30.9	29.1
19. Activity rate (% of population aged 25-54)	73.8	74.3	75.1	75.7	76.3	77.5	77.4	77.8	77.6	78.1	77.2
20. Activity rate (% of population aged 55-64)	29.0	29.0	29.2	30.2	31.5	31.8	32.6	33.4	34.6	35.5	37.0
21. Total unemployment (000)	2 559	2 388	2 164	2 062	2 048	1 957	1 885	1 679	1 509	1 690	1 944
22. Unemployment rate (% labour force 15+)	10.9	10.1	9.1	8.6	8.4	8.0	7.7	6.8	6.1	6.7	7.8
23. Youth unemployment rate (% labour force 15-24)	28.7	27.0	24.1	23.1	23.7	23.5	23.9	21.7	20.3	21.2	25.3
24. Long term unemployment rate (% labour force)	6.7	6.3	5.7	5.1	4.9	4.0	3.8	3.4	2.9	3.1	3.5
25. Youth unemployment ratio (% population aged 15-24)	12.6	11.9	10.3	9.7	9.4	8.5	8.1	7.0	6.3	6.6	7.4

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	27 567	27 651	27 764	27 858	27 873	27 830	28 192	28 406	28 629	28 849	29 047
2. Population aged 15-64	19 206	19 232	19 258	19 293	19 309	19 047	19 248	19 355	19 467	19 574	19 670
3. Total employment (000)	14 305	14 485	14 630	14 816	14 990	14 747	14 854	15 083	15 247	15 178	14 876
4. Population in employment aged 15-64	12 920	13 076	13 201	13 332	13 438	13 353	13 460	13 647	13 762	13 755	13 500
5. Employment rate (% population aged 15-64)	67.3	68.0	68.5	69.1	69.6	70.1	69.9	70.5	70.7	70.3	68.6
6. Employment rate (% population aged 20-64)	72.2	72.8	73.4	74.0	74.6	74.9	74.8	75.5	75.8	75.4	73.8
7. Employment rate (% population aged 15-24)	30.3	30.7	30.4	30.3	29.7	32.1	30.4	30.6	29.6	29.1	26.1
8. Employment rate (% population aged 25-54)	84.3	84.9	85.5	86.0	86.5	86.7	86.6	87.2	87.3	86.7	84.7
9. Employment rate (% population aged 55-64)	41.2	40.9	40.4	41.3	42.8	42.2	42.7	43.7	45.1	45.5	46.7
10. FTE employment rate (% population aged 15-64)	.	67.0	67.6	68.4	69.0	68.9	68.5	69.1	69.3	68.9	67.3
11. Self-employed (% total employment)	29.4	29.7	29.5	29.1	29.1	29.1	28.4	28.0	27.8	27.4	27.4
12. Part-time employment (% total employment)	3.5	3.7	3.5	3.5	3.2	4.8	4.6	4.7	5.0	5.3	5.1
13. Fixed term contracts (% total employees)	8.2	8.7	8.3	8.4	8.2	9.9	10.5	11.2	11.2	11.6	10.8
14. Employment in Services (% total employment)	58.5	59.0	59.0	59.1	59.2	58.2	57.9	58.0	57.9	59.8	59.9
15. Employment in Industry (% total employment)	36.1	35.7	35.8	35.9	36.1	36.9	37.3	37.2	37.4	35.8	35.6
16. Employment in Agriculture (% total employment)	5.4	5.3	5.2	5.0	4.7	4.9	4.8	4.8	4.7	4.4	4.5
17. Activity rate (% population aged 15-64)	73.8	74.1	74.1	74.3	74.7	74.9	74.6	74.6	74.4	74.4	73.7
18. Activity rate (% of population aged 15-24)	42.8	42.5	40.6	39.9	39.2	40.5	38.7	37.8	36.1	35.9	34.0
19. Activity rate (% of population aged 25-54)	90.5	90.6	90.7	91.0	91.5	91.4	91.2	91.3	91.0	91.0	90.0
20. Activity rate (% of population aged 55-64)	43.2	42.7	42.3	43.0	44.4	44.0	44.3	45.0	46.3	47.0	48.5
21. Total unemployment (000)	1 202	1 118	1 008	960	936	924	901	802	724	821	1 001
22. Unemployment rate (% labour force 15+)	8.4	7.8	7.1	6.7	6.5	6.4	6.2	5.4	4.9	5.5	6.8
23. Youth unemployment rate (% labour force 15-24)	24.7	23.1	20.4	19.4	20.5	20.6	21.5	19.1	18.2	18.9	23.3
24. Long term unemployment rate (% labour force)	5.2	4.8	4.4	4.0	3.8	2.9	2.9	2.6	2.2	2.4	2.8
25. Youth unemployment ratio (% population aged 15-24)	12.5	11.7	10.2	9.6	9.5	8.4	8.3	7.2	6.6	6.8	7.9

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	29 339	29 393	29 465	29 524	29 525	29 612	29 885	30 030	30 251	30 488	30 705
2. Population aged 15-64	19 428	19 410	19 388	19 383	19 384	19 245	19 340	19 371	19 479	19 608	19 736
3. Total employment (000)	8 189	8 445	8 764	8 977	9 159	9 509	9 542	9 791	9 941	10 081	9 963
4. Population in employment aged 15-64	7 437	7 677	7 968	8 146	8 272	8 706	8 754	8 971	9 084	9 256	9 151
5. Employment rate (% population aged 15-64)	38.3	39.6	41.1	42.0	42.7	45.2	45.3	46.3	46.6	47.2	46.4
6. Employment rate (% population aged 20-64)	40.9	42.2	43.8	44.9	45.6	48.3	48.4	49.6	49.9	50.6	49.7
7. Employment rate (% population aged 15-24)	21.3	22.1	22.1	21.3	20.6	23.1	20.8	20.1	19.5	19.4	17.0
8. Employment rate (% population aged 25-54)	49.6	50.9	52.8	54.0	54.9	57.8	57.9	59.3	59.6	60.2	59.1
9. Employment rate (% population aged 55-64)	15.0	15.3	16.2	17.3	18.5	19.6	20.8	21.9	23.0	24.0	25.4
10. FTE employment rate (% population aged 15-64)	.	36.7	38.1	39.2	39.9	40.2	40.1	41.0	41.3	41.7	40.9
11. Self-employed (% total employment)	21.0	20.6	20.1	19.7	19.8	20.3	19.1	18.9	18.5	17.9	17.3
12. Part-time employment (% total employment)	15.6	16.5	16.6	16.9	17.3	25.0	25.6	26.5	26.9	27.9	27.9
13. Fixed term contracts (% total employees)	11.5	12.2	11.9	12.0	12.2	14.5	14.7	15.8	15.9	15.6	14.6
14. Employment in Services (% total employment)	76.4	77.0	77.5	78.1	78.9	80.1	80.7	81.1	81.5	80.8	82.0
15. Employment in Industry (% total employment)	19.4	19.0	18.5	18.1	17.8	16.6	16.1	15.7	15.4	16.0	15.0
16. Employment in Agriculture (% total employment)	4.2	4.0	4.0	3.8	3.3	3.3	3.2	3.2	3.0	3.2	3.0
17. Activity rate (% population aged 15-64)	45.5	46.3	47.3	47.9	48.3	50.6	50.4	50.8	50.7	51.6	51.1
18. Activity rate (% of population aged 15-24)	34.0	34.3	32.6	31.0	29.9	31.7	28.7	26.9	25.5	25.7	23.9
19. Activity rate (% of population aged 25-54)	57.1	57.9	59.3	60.3	60.9	63.6	63.6	64.3	64.1	65.2	64.5
20. Activity rate (% of population aged 55-64)	15.8	16.1	16.9	18.1	19.3	20.4	21.5	22.5	23.5	24.7	26.1
21. Total unemployment (000)	1 358	1 271	1 157	1 103	1 112	1 033	984	877	786	870	943
22. Unemployment rate (% labour force 15+)	14.8	13.6	12.2	11.5	11.3	10.5	10.0	8.8	7.9	8.5	9.3
23. Youth unemployment rate (% labour force 15-24)	33.8	31.9	28.7	27.8	27.6	27.2	27.4	25.3	23.3	24.7	28.7
24. Long term unemployment rate (% labour force)	9.0	8.4	7.6	6.9	6.6	5.5	5.2	4.5	3.9	4.0	4.3
25. Youth unemployment ratio (% population aged 15-24)	12.7	12.1	10.5	9.7	9.2	8.6	7.9	6.8	6.0	6.3	6.9

LFS indicators: 2004 break in series.

Labour market indicators: Cyprus

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	668	674	681	690	714	727	737	752	758	763
2. Population aged 15-64	:	438	444	449	460	479	494	500	518	524	528
3. Total employment (000)	310	315	322	328	341	354	366	373	385	395	392
4. Population in employment aged 15-64	:	288	301	308	318	330	338	348	368	371	369
5. Employment rate (% population aged 15-64)	:	65.7	67.8	68.6	69.2	68.9	68.5	69.6	71.0	70.9	69.9
6. Employment rate (% population aged 20-64)	:	72.3	74.1	75.1	75.4	74.9	74.4	75.8	76.8	76.5	75.7
7. Employment rate (% population aged 15-24)	:	37.0	38.4	37.0	37.6	37.5	36.7	37.4	37.4	38.0	35.5
8. Employment rate (% population aged 25-54)	:	78.3	80.8	82.2	82.6	82.4	81.8	82.6	83.8	83.7	82.6
9. Employment rate (% population aged 55-64)	:	49.4	49.1	49.4	50.4	49.9	50.6	53.6	55.9	54.8	56.0
10. FTE employment rate (% population aged 15-64)	:	64.0	66.2	67.4	67.8	68.0	66.7	68.1	69.4	69.1	68.0
11. Self-employed (% total employment)	23.2	23.2	22.8	22.2	22.7	22.5	22.1	20.6	19.7	17.3	17.2
12. Part-time employment (% total employment)	6.5	8.4	8.4	7.2	8.9	8.6	8.9	7.7	7.3	7.8	8.4
13. Fixed term contracts (% total employees)	10.3	10.7	10.8	9.1	12.5	12.9	14.0	13.1	13.2	13.9	13.4
14. Employment in Services (% total employment)	72.4	73.3	74.2	74.0	74.2	74.1	74.7	75.4	75.1	75.5	75.7
15. Employment in Industry (% total employment)	21.6	20.7	20.1	19.9	20.3	20.4	20.3	20.4	20.3	20.3	19.8
16. Employment in Agriculture (% total employment)	6.1	6.0	5.7	6.1	5.5	5.5	5.0	4.2	4.5	4.2	4.5
17. Activity rate (% population aged 15-64)	:	69.1	70.6	71.2	72.4	72.6	72.4	73.0	73.9	73.6	74.0
18. Activity rate (% of population aged 15-24)	:	41.0	41.8	40.2	41.3	42.4	42.6	41.5	41.7	41.7	41.1
19. Activity rate (% of population aged 25-54)	:	81.9	83.5	84.7	85.8	86.0	85.7	86.2	86.7	86.5	86.6
20. Activity rate (% of population aged 55-64)	:	51.3	51.7	51.3	52.7	52.4	52.4	55.5	57.7	56.6	58.5
21. Total unemployment (000)	:	15	12	12	14	16	19	17	16	14	21
22. Unemployment rate (% labour force 15+)	:	4.9	3.8	3.6	4.1	4.7	5.3	4.6	4.0	3.6	5.3
23. Youth unemployment rate (% labour force 15-24)	:	10.1	8.1	8.1	8.9	10.5	13.0	10.5	10.1	8.8	14.0
24. Long term unemployment rate (% labour force)	:	1.2	0.8	0.8	1.0	1.2	1.2	0.9	0.7	0.5	0.6
25. Youth unemployment ratio (% population aged 15-24)	:	4.1	3.4	3.2	3.7	4.9	5.9	4.1	4.2	3.8	5.7

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	324	327	330	333	347	354	360	367	371	376
2. Population aged 15-64	:	211	214	216	221	232	240	244	252	256	260
3. Total employment (000)	:	184	183	184	189	200	208	209	213	219	216
4. Population in employment aged 15-64	:	166	170	171	174	185	190	194	202	203	202
5. Employment rate (% population aged 15-64)	:	78.7	79.3	78.9	78.8	79.8	79.2	79.4	80.0	79.2	77.6
6. Employment rate (% population aged 20-64)	:	86.4	86.6	86.2	85.6	86.3	85.5	86.2	86.4	85.2	83.5
7. Employment rate (% population aged 15-24)	:	39.6	39.8	38.0	38.7	41.6	40.5	41.0	39.1	39.4	36.4
8. Employment rate (% population aged 25-54)	:	92.6	93.4	93.0	92.2	92.5	91.8	92.0	92.4	91.4	89.2
9. Employment rate (% population aged 55-64)	:	67.3	66.9	67.3	68.9	70.8	70.8	71.6	72.5	70.9	71.7
10. FTE employment rate (% population aged 15-64)	:	78.9	79.3	79.5	79.3	80.3	79.4	79.6	79.8	78.9	77.1
11. Self-employed (% total employment)	:	28.5	28.4	27.6	28.9	28.2	27.3	25.6	25.3	22.3	21.2
12. Part-time employment (% total employment)	3.4	4.5	5.0	4.0	5.5	4.8	5.0	4.3	4.4	4.8	5.2
13. Fixed term contracts (% total employees)	8.2	7.6	7.1	5.8	8.1	8.5	9.0	7.9	7.6	8.2	7.5
14. Employment in Services (% total employment)	:	65.8	65.8	65.2	64.6	64.0	64.6	65.6	64.2	65.9	67.0
15. Employment in Industry (% total employment)	:	27.5	27.7	27.7	28.7	29.4	29.3	29.1	29.6	28.7	27.8
16. Employment in Agriculture (% total employment)	:	6.7	6.5	7.1	6.6	6.6	6.1	5.3	6.2	5.3	5.2
17. Activity rate (% population aged 15-64)	:	81.4	81.5	81.3	82.2	83.0	82.9	82.7	82.9	82.0	82.0
18. Activity rate (% of population aged 15-24)	:	42.4	42.5	41.3	42.6	46.3	46.6	45.0	43.9	43.1	42.1
19. Activity rate (% of population aged 25-54)	:	95.3	95.3	95.2	95.2	95.2	95.3	95.3	95.0	94.0	93.5
20. Activity rate (% of population aged 55-64)	:	69.6	69.5	69.7	73.2	74.2	73.2	74.1	74.8	73.0	74.9
21. Total unemployment (000)	:	6	5	5	7	7	9	8	7	7	11
22. Unemployment rate (% labour force 15+)	:	3.2	2.6	2.9	3.6	3.6	4.3	4.0	3.4	3.1	5.2
23. Youth unemployment rate (% labour force 15-24)	:	6.9	6.3	7.9	8.8	9.4	11.9	9.9	10.7	8.4	13.8
24. Long term unemployment rate (% labour force)	:	0.5	0.6	0.5	0.7	0.9	0.8	0.7	0.8	0.5	0.5
25. Youth unemployment ratio (% population aged 15-24)	:	2.8	2.7	3.3	3.9	4.7	6.1	4.0	4.8	3.7	5.7

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	344	347	351	356	367	373	377	386	387	387
2. Population aged 15-64	:	227	230	233	239	247	254	257	266	268	268
3. Total employment (000)	:	131	139	144	152	154	159	164	172	176	176
4. Population in employment aged 15-64	:	122	132	138	144	145	148	155	166	168	168
5. Employment rate (% population aged 15-64)	:	53.5	57.2	59.1	60.4	58.7	58.4	60.3	62.4	62.9	62.5
6. Employment rate (% population aged 20-64)	:	59.0	62.4	64.7	65.9	64.1	63.8	65.9	67.7	68.2	68.1
7. Employment rate (% population aged 15-24)	:	34.7	37.1	36.0	36.6	33.8	33.2	34.1	36.0	36.7	34.6
8. Employment rate (% population aged 25-54)	:	64.6	69.0	72.0	73.6	72.8	72.2	73.6	75.5	76.2	76.0
9. Employment rate (% population aged 55-64)	:	32.1	32.2	32.2	32.7	30.0	31.5	36.6	40.3	39.4	40.8
10. FTE employment rate (% population aged 15-64)	:	50.2	54.1	56.3	57.2	56.6	54.9	57.2	59.5	59.7	59.2
11. Self-employed (% total employment)	:	15.8	15.4	15.3	15.1	15.2	15.3	14.2	12.8	11.2	12.2
12. Part-time employment (% total employment)	11.1	13.9	12.9	11.3	13.2	13.6	14.0	12.1	10.9	11.4	12.5
13. Fixed term contracts (% total employees)	12.9	14.3	14.8	12.7	17.1	17.7	19.5	19.0	19.2	19.9	19.8
14. Employment in Services (% total employment)	:	83.5	85.0	84.9	85.8	86.7	87.5	87.7	88.5	88.0	87.0
15. Employment in Industry (% total employment)	:	11.5	10.4	10.1	10.1	9.2	8.8	9.4	9.0	9.2	9.4
16. Employment in Agriculture (% total employment)	:	5.1	4.6	4.9	4.1	4.1	3.6	2.9	2.5	2.8	3.7
17. Activity rate (% population aged 15-64)	:	57.7	60.6	61.8	63.3	62.8	62.5	63.8	65.4	65.7	66.2
18. Activity rate (% of population aged 15-24)	:	39.9	41.2	39.2	40.2	39.0	39.0	38.3	39.7	40.5	40.2
19. Activity rate (% of population aged 25-54)	:	69.0	72.3	74.9	76.9	77.2	76.5	77.4	78.7	79.1	79.7
20. Activity rate (% of population aged 55-64)	:	33.7	34.7	33.8	33.2	31.6	32.8	37.8	41.6	41.0	42.6
21. Total unemployment (000)	:	10	8	7	7	9	10	9	8	8	10
22. Unemployment rate (% labour force 15+)	:	7.2	5.3	4.5	4.8	6.0	6.5	5.4	4.6	4.2	5.5
23. Youth unemployment rate (% labour force 15-24)	:	13.0	9.7	8.3	9.1	11.6	14.2	11.2	9.5	9.3	14.1
24. Long term unemployment rate (% labour force)	:	2.2	1.1	1.0	1.4	1.6	1.8	1.1	0.7	0.5	0.6
25. Youth unemployment ratio (% population aged 15-24)	:	5.1	4.1	3.1	3.6	5.1	5.7	4.3	3.7	3.8	5.6

Labour market indicators: Latvia

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 402	2 384	2 366	2 344	2 330	2 319	2 305	2 294	2 281	2 271	2 261
2. Population aged 15-64	1 601	1 600	1 594	1 590	1 588	1 587	1 583	1 580	1 573	1 568	1 560
3. Total employment (000)	973	942	953	981	1 000	1 012	1 028	1 079	1 117	1 128	975
4. Population in employment aged 15-64	941	920	935	960	982	988	1 002	1 047	1 075	1 076	951
5. Employment rate (% population aged 15-64)	58.8	57.5	58.6	60.4	61.8	62.3	63.3	66.3	68.3	68.6	60.9
6. Employment rate (% population aged 20-64)	64.5	63.5	65.1	67.0	68.9	69.3	70.4	73.5	75.2	75.8	67.1
7. Employment rate (% population aged 15-24)	32.3	29.6	28.8	31.0	31.5	30.5	32.6	35.9	38.4	37.2	27.7
8. Employment rate (% population aged 25-54)	74.6	73.6	75.4	76.1	77.7	77.9	78.4	81.1	82.3	82.6	74.7
9. Employment rate (% population aged 55-64)	36.6	36.0	36.9	41.7	44.1	47.9	49.5	53.3	57.7	59.4	53.2
10. FTE employment rate (% population aged 15-64)	:	56.0	57.6	59.9	61.1	60.8	62.9	66.2	68.4	68.6	59.7
11. Self-employed (% total employment)	16.5	15.1	15.2	14.2	13.4	13.5	11.9	11.9	11.0	10.3	11.6
12. Part-time employment (% total employment)	12.1	11.3	10.3	9.7	10.3	10.4	8.3	6.5	6.4	6.3	8.9
13. Fixed term contracts (% total employees)	7.6	6.7	6.7	13.9	11.1	9.5	8.4	7.1	4.2	3.3	4.3
14. Employment in Services (% total employment)	58.0	60.7	59.7	60.0	60.3	60.7	61.8	61.9	62.5	64.8	68.0
15. Employment in Industry (% total employment)	25.5	25.0	25.8	25.3	26.4	26.5	26.9	27.0	27.8	27.3	23.4
16. Employment in Agriculture (% total employment)	16.5	14.3	14.5	14.7	13.3	12.8	11.3	11.1	9.7	7.9	8.6
17. Activity rate (% population aged 15-64)	68.5	67.2	67.7	68.8	69.2	69.7	69.6	71.3	72.8	74.4	73.9
18. Activity rate (% of population aged 15-24)	42.5	38.1	36.9	39.1	38.4	37.2	37.7	40.8	43.0	42.9	41.7
19. Activity rate (% of population aged 25-54)	86.0	85.5	86.2	85.7	86.3	86.3	85.6	86.4	87.2	88.9	88.5
20. Activity rate (% of population aged 55-64)	39.9	39.7	41.4	46.3	47.9	52.3	53.8	57.1	60.3	63.3	61.4
21. Total unemployment (000)	158	150	143	138	119	118	101	80	71	91	203
22. Unemployment rate (% labour force 15+)	14.0	13.7	12.9	12.2	10.5	10.4	8.9	6.8	6.0	7.5	17.1
23. Youth unemployment rate (% labour force 15-24)	23.6	21.4	22.9	22.0	18.0	18.1	13.6	12.2	10.7	13.1	33.6
24. Long term unemployment rate (% labour force)	7.6	7.9	7.2	5.5	4.4	4.6	4.1	2.5	1.6	1.9	4.6
25. Youth unemployment ratio (% population aged 15-24)	10.2	8.5	8.2	8.1	6.9	6.8	5.1	5.0	4.6	5.6	14.0

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 105	1 098	1 089	1 078	1 071	1 068	1 062	1 057	1 052	1 047	1 043
2. Population aged 15-64	765	765	764	762	761	764	763	763	761	759	757
3. Total employment (000)	506	481	481	501	513	518	530	553	573	574	474
4. Population in employment aged 15-64	490	471	473	490	503	507	515	537	552	547	462
5. Employment rate (% population aged 15-64)	64.1	61.5	61.9	64.3	66.1	66.4	67.6	70.4	72.5	72.1	61.0
6. Employment rate (% population aged 20-64)	70.5	68.2	69.0	71.4	73.9	74.1	75.4	78.2	80.1	79.7	67.4
7. Employment rate (% population aged 15-24)	36.9	34.7	32.8	36.4	37.1	36.4	38.7	42.8	43.4	42.4	29.3
8. Employment rate (% population aged 25-54)	77.8	74.8	76.7	78.1	80.7	80.4	81.7	83.7	85.6	85.4	74.5
9. Employment rate (% population aged 55-64)	49.9	48.4	46.2	50.5	51.3	55.8	55.2	59.5	64.6	63.1	53.1
10. FTE employment rate (% population aged 15-64)	:	60.7	61.5	63.5	66.3	66.8	67.7	70.6	73.0	72.5	60.2
11. Self-employed (% total employment)	17.6	16.5	17.4	16.1	15.4	14.7	13.8	13.7	13.3	13.0	14.7
12. Part-time employment (% total employment)	11.0	9.7	8.6	7.6	7.9	7.7	6.3	4.7	4.9	4.5	7.5
13. Fixed term contracts (% total employees)	10.0	8.8	8.5	17.0	13.1	11.6	10.7	8.8	5.5	4.7	5.8
14. Employment in Services (% total employment)	48.7	51.3	48.9	48.7	48.8	49.6	49.6	48.7	48.3	51.6	56.9
15. Employment in Industry (% total employment)	32.9	32.6	33.6	33.3	34.6	34.8	35.7	37.2	39.6	38.4	31.9
16. Employment in Agriculture (% total employment)	18.5	16.1	17.5	17.9	16.5	15.6	14.6	14.1	12.1	10.0	11.2
17. Activity rate (% population aged 15-64)	75.1	72.7	72.6	74.1	74.1	74.3	74.4	76.2	77.6	78.6	77.0
18. Activity rate (% of population aged 15-24)	49.0	44.1	42.2	44.6	44.5	43.3	43.8	47.8	48.9	48.8	46.8
19. Activity rate (% of population aged 25-54)	90.2	88.2	89.0	89.2	89.7	89.7	89.4	90.0	91.0	92.2	91.1
20. Activity rate (% of population aged 55-64)	54.4	54.0	52.9	57.1	56.1	60.4	61.0	64.4	67.9	68.7	63.8
21. Total unemployment (000)	85	82	81	78	62	62	53	45	39	50	122
22. Unemployment rate (% labour force 15+)	14.4	14.4	14.2	13.3	10.6	10.6	9.1	7.4	6.4	8.0	20.3
23. Youth unemployment rate (% labour force 15-24)	25.5	21.2	23.4	20.4	16.6	16.0	11.8	10.5	11.2	13.2	37.5
24. Long term unemployment rate (% labour force)	7.6	8.3	8.1	6.4	4.3	4.8	4.4	3.0	1.9	1.9	5.5
25. Youth unemployment ratio (% population aged 15-24)	12.1	9.4	9.4	8.2	7.4	6.9	5.2	5.0	5.5	6.4	17.6

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 297	1 286	1 277	1 266	1 258	1 251	1 244	1 237	1 230	1 224	1 218
2. Population aged 15-64	836	835	831	828	826	823	820	817	812	808	803
3. Total employment (000)	467	460	472	481	487	494	498	526	545	554	501
4. Population in employment aged 15-64	451	449	462	471	478	482	487	510	523	529	489
5. Employment rate (% population aged 15-64)	53.9	53.8	55.7	56.8	57.9	58.5	59.3	62.4	64.4	65.4	60.9
6. Employment rate (% population aged 20-64)	59.0	59.3	61.6	63.0	64.3	65.0	65.7	69.1	70.7	72.1	66.8
7. Employment rate (% population aged 15-24)	27.6	24.4	24.6	25.4	25.7	24.4	26.2	28.7	33.1	31.9	26.0
8. Employment rate (% population aged 25-54)	71.6	72.5	74.3	74.3	74.9	75.5	75.3	78.6	79.1	79.9	74.9
9. Employment rate (% population aged 55-64)	26.6	26.7	30.0	35.2	38.8	41.9	45.3	48.7	52.4	56.7	53.3
10. FTE employment rate (% population aged 15-64)	:	51.6	54.1	56.7	56.5	55.2	58.5	62.0	64.0	65.0	59.2
11. Self-employed (% total employment)	15.4	13.7	13.0	12.2	11.3	12.4	10.0	10.1	8.6	7.5	8.7
12. Part-time employment (% total employment)	13.2	12.8	11.9	12.0	12.7	13.2	10.4	8.3	8.0	8.1	10.2
13. Fixed term contracts (% total employees)	5.1	4.6	5.0	10.8	9.1	7.3	6.2	5.4	2.9	2.0	2.9
14. Employment in Services (% total employment)	68.1	70.6	70.9	72.0	72.5	72.4	74.7	75.9	77.4	78.7	79.0
15. Employment in Industry (% total employment)	17.5	17.1	17.8	16.7	17.7	17.7	17.4	16.1	15.4	15.7	15.0
16. Employment in Agriculture (% total employment)	14.4	12.3	11.3	11.2	9.8	9.9	7.9	8.0	7.2	5.6	6.1
17. Activity rate (% population aged 15-64)	62.4	62.1	63.2	63.9	64.7	65.3	65.1	66.7	68.3	70.5	71.0
18. Activity rate (% of population aged 15-24)	35.8	31.9	31.5	33.4	32.1	31.0	31.3	33.6	36.8	36.7	36.3
19. Activity rate (% of population aged 25-54)	82.2	83.1	83.5	82.3	83.0	83.1	82.0	82.9	83.6	85.7	86.1
20. Activity rate (% of population aged 55-64)	29.1	29.0	32.8	38.2	41.8	46.1	48.5	51.6	54.6	59.3	59.7
21. Total unemployment (000)	73	69	62	60	57	56	48	35	32	41	82
22. Unemployment rate (% labour force 15+)	13.6	12.9	11.5	10.9	10.4	10.2	8.7	6.2	5.6	6.9	13.9
23. Youth unemployment rate (% labour force 15-24)	20.8	21.6	22.3	24.2	20.0	21.3	16.2	14.7	10.0	13.1	28.4
24. Long term unemployment rate (% labour force)	7.6	7.5	6.3	4.6	4.4	4.3	3.7	1.9	1.2	1.9	3.6
25. Youth unemployment ratio (% population aged 15-24)	8.1	7.5	6.9	8.1	6.4	6.6	5.1	4.9	3.7	4.8	10.3

Labour market indicators: Lithuania

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	3 537	3 513	3 483	3 453	3 445	3 434	3 424	3 403	3 385	3 366	3 350
2. Population aged 15-64	2 330	2 319	2 312	2 303	2 305	2 311	2 322	2 321	2 319	2 316	2 309
3. Total employment (000)	1 457	1 399	1 346	1 395	1 426	1 425	1 461	1 487	1 529	1 522	1 417
4. Population in employment aged 15-64	1 438	1 370	1 329	1 379	1 408	1 413	1 454	1 476	1 506	1 490	1 388
5. Employment rate (% population aged 15-64)	61.7	59.1	57.5	59.9	61.1	61.2	62.6	63.6	64.9	64.3	60.1
6. Employment rate (% population aged 20-64)	67.8	65.6	64.2	67.2	68.9	69.0	70.6	71.6	72.9	72.0	67.2
7. Employment rate (% population aged 15-24)	31.1	25.9	22.7	23.8	22.5	20.3	21.2	23.7	25.2	26.7	21.5
8. Employment rate (% population aged 25-54)	77.6	75.2	74.1	76.9	78.9	79.4	81.0	81.7	82.5	81.2	76.3
9. Employment rate (% population aged 55-64)	40.9	40.4	38.9	41.6	44.7	47.1	49.2	49.6	53.4	53.1	51.6
10. FTE employment rate (% population aged 15-64)	:	59.4	58.0	60.3	62.0	60.3	61.9	62.6	64.2	63.7	59.0
11. Self-employed (% total employment)	20.1	19.7	19.9	20.2	20.5	18.7	17.1	15.8	13.7	11.5	12.1
12. Part-time employment (% total employment)	:	10.2	9.9	10.8	9.6	8.4	7.1	9.9	8.6	6.7	8.3
13. Fixed term contracts (% total employees)	:	4.4	5.8	7.2	7.2	6.3	5.5	4.5	3.5	2.4	2.2
14. Employment in Services (% total employment)	53.5	54.7	55.8	54.9	54.2	56.2	57.1	58.1	59.1	61.7	63.5
15. Employment in Industry (% total employment)	27.2	26.7	26.9	27.3	28.0	28.0	28.9	29.5	30.5	30.4	27.2
16. Employment in Agriculture (% total employment)	19.3	18.7	17.2	17.8	17.8	15.8	14.0	12.4	10.3	7.9	9.3
17. Activity rate (% population aged 15-64)	72.2	70.8	69.7	69.6	69.9	69.1	68.4	67.4	67.9	68.4	69.8
18. Activity rate (% of population aged 15-24)	42.2	36.9	33.1	30.9	30.0	26.2	25.1	26.3	27.4	30.8	30.3
19. Activity rate (% of population aged 25-54)	90.0	89.0	88.5	88.5	88.8	88.7	87.9	86.2	86.0	85.5	87.3
20. Activity rate (% of population aged 55-64)	43.4	45.1	44.9	46.9	50.5	52.6	52.8	52.9	55.6	55.6	57.6
21. Total unemployment (000)	235	277	273	219	204	184	133	89	69	94	225
22. Unemployment rate (% labour force 15+)	13.7	16.4	16.5	13.5	12.5	11.4	8.3	5.6	4.3	5.8	13.7
23. Youth unemployment rate (% labour force 15-24)	26.4	30.6	30.9	22.4	25.1	22.7	15.7	9.8	8.2	13.4	29.2
24. Long term unemployment rate (% labour force)	5.3	8.0	9.3	7.2	6.0	5.8	4.3	2.5	1.4	1.2	3.2
25. Youth unemployment ratio (% population aged 15-24)	11.1	11.0	10.4	7.1	7.5	5.9	3.9	2.6	2.2	4.1	8.9

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 658	1 645	1 626	1 611	1 607	1 601	1 597	1 587	1 577	1 567	1 559
2. Population aged 15-64	1 121	1 116	1 109	1 104	1 108	1 113	1 119	1 121	1 121	1 121	1 119
3. Total employment (000)	:	688	661	702	720	728	744	750	775	769	680
4. Population in employment aged 15-64	721	675	653	692	709	720	740	743	761	752	666
5. Employment rate (% population aged 15-64)	64.3	60.5	58.9	62.7	64.0	64.7	66.1	66.3	67.9	67.1	59.5
6. Employment rate (% population aged 20-64)	70.8	67.4	66.1	70.8	72.5	73.4	74.9	75.2	76.5	75.5	66.9
7. Employment rate (% population aged 15-24)	33.8	28.9	24.6	27.1	26.3	24.0	24.8	26.4	29.6	30.9	22.0
8. Employment rate (% population aged 25-54)	77.3	74.0	73.3	78.0	79.8	81.7	83.3	84.1	84.3	82.7	74.6
9. Employment rate (% population aged 55-64)	54.4	50.6	49.2	51.5	55.3	57.6	59.1	55.7	60.8	60.2	56.0
10. FTE employment rate (% population aged 15-64)	:	61.6	59.9	64.4	65.8	64.8	66.2	66.2	67.9	67.3	59.1
11. Self-employed (% total employment)	:	22.7	23.9	23.4	23.8	21.0	19.4	17.7	16.3	14.1	14.8
12. Part-time employment (% total employment)	:	9.2	8.4	9.4	7.4	6.5	5.1	7.9	7.0	4.9	7.0
13. Fixed term contracts (% total employees)	:	5.9	7.6	9.8	9.6	8.7	7.6	6.4	4.9	2.9	2.9
14. Employment in Services (% total employment)	:	44.2	44.7	44.7	44.5	46.3	46.5	45.9	46.0	48.9	51.7
15. Employment in Industry (% total employment)	:	33.4	33.6	33.9	34.3	35.6	36.9	39.6	41.1	41.2	36.8
16. Employment in Agriculture (% total employment)	:	22.4	21.7	21.4	21.2	18.2	16.6	14.6	12.8	9.8	11.6
17. Activity rate (% population aged 15-64)	76.6	74.5	73.7	73.6	73.5	72.8	72.1	70.5	71.0	71.4	72.0
18. Activity rate (% of population aged 15-24)	47.4	42.2	38.3	35.2	34.1	30.9	29.5	29.3	31.8	35.4	33.9
19. Activity rate (% of population aged 25-54)	91.0	89.9	89.7	90.5	90.5	90.7	90.1	88.7	87.9	87.4	88.3
20. Activity rate (% of population aged 55-64)	59.0	58.1	59.0	59.8	62.0	63.7	63.8	59.9	63.4	63.0	63.8
21. Total unemployment (000)	132	159	156	117	105	91	67	47	35	50	140
22. Unemployment rate (% labour force 15+)	15.1	18.6	18.6	14.2	12.7	11.0	8.2	5.8	4.3	6.1	17.1
23. Youth unemployment rate (% labour force 15-24)	29.5	32.3	34.4	22.6	22.9	22.5	15.9	10.0	7.0	12.6	35.1
24. Long term unemployment rate (% labour force)	6.1	9.4	10.8	7.6	6.0	5.5	4.2	2.5	1.4	1.0	3.6
25. Youth unemployment ratio (% population aged 15-24)	13.5	13.3	13.8	8.1	7.8	7.0	4.7	2.9	2.2	4.4	11.9

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 879	1 868	1 856	1 842	1 839	1 832	1 827	1 817	1 808	1 799	1 791
2. Population aged 15-64	1 209	1 204	1 203	1 200	1 197	1 197	1 202	1 200	1 198	1 196	1 190
3. Total employment (000)	:	711	685	693	706	698	717	737	754	752	736
4. Population in employment aged 15-64	717	695	676	687	699	693	714	733	745	739	722
5. Employment rate (% population aged 15-64)	59.4	57.7	56.2	57.2	58.4	57.8	59.4	61.0	62.2	61.8	60.7
6. Employment rate (% population aged 20-64)	65.0	63.9	62.5	63.9	65.6	65.0	66.6	68.3	69.5	68.8	67.5
7. Employment rate (% population aged 15-24)	28.2	22.8	20.9	20.5	18.5	16.5	17.4	20.9	20.5	22.2	20.9
8. Employment rate (% population aged 25-54)	77.9	76.3	74.8	75.8	78.0	77.3	78.8	79.5	80.8	79.7	78.0
9. Employment rate (% population aged 55-64)	30.6	32.6	31.1	34.1	36.7	39.3	41.7	45.1	47.9	47.8	48.3
10. FTE employment rate (% population aged 15-64)	:	57.3	56.2	56.5	58.4	56.1	57.8	59.2	60.7	60.4	58.9
11. Self-employed (% total employment)	:	16.8	16.0	17.0	17.2	16.3	14.7	13.9	11.0	8.8	9.5
12. Part-time employment (% total employment)	:	11.1	11.4	12.3	11.8	10.5	9.1	12.0	10.2	8.6	9.5
13. Fixed term contracts (% total employees)	:	3.1	4.2	4.9	4.8	3.9	3.6	2.7	2.3	1.9	1.6
14. Employment in Services (% total employment)	:	64.8	66.6	65.2	64.0	66.5	68.0	70.5	72.5	75.1	74.8
15. Employment in Industry (% total employment)	:	20.2	20.5	20.7	21.5	20.2	20.7	19.4	19.7	19.0	18.1
16. Employment in Agriculture (% total employment)	:	15.0	13.0	14.1	14.4	13.3	11.3	10.1	7.8	5.9	7.1
17. Activity rate (% population aged 15-64)	68.2	67.3	66.0	65.8	66.5	65.6	64.9	64.6	65.0	65.5	67.8
18. Activity rate (% of population aged 15-24)	36.9	31.5	27.8	26.6	25.8	21.4	20.5	23.1	22.8	26.0	26.7
19. Activity rate (% of population aged 25-54)	89.1	88.2	87.4	86.7	87.2	86.8	85.8	83.8	84.2	83.8	86.3
20. Activity rate (% of population aged 55-64)	31.6	35.2	34.3	37.2	41.8	44.2	44.5	47.6	49.7	50.0	52.9
21. Total unemployment (000)	103	118	117	102	98	94	66	43	34	45	85
22. Unemployment rate (% labour force 15+)	12.3	14.1	14.3	12.7	12.2	11.8	8.3	5.4	4.3	5.6	10.4
23. Youth unemployment rate (% labour force 15-24)	22.4	28.3	26.3	22.2	28.1	22.9	15.3	9.6	10.0	14.6	21.6
24. Long term unemployment rate (% labour force)	4.5	6.5	7.7	6.8	6.0	6.2	4.5	2.5	1.3	1.4	2.8
25. Youth unemployment ratio (% population aged 15-24)	8.7	8.7	6.9	6.1	7.3	4.9	3.1	2.2	2.3	3.8	5.8

Indicator 1: 1999-2001 estimate.

Labour market indicators: Luxembourg

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	425	430	433	436	443	446	450	456	465	467	481
2. Population aged 15-64	285	288	293	295	300	301	304	307	316	318	330
3. Total employment (000)	250	264	278	287	293	299	308	319	333	349	352
4. Population in employment aged 15-64	176	181	185	187	186	188	193	195	203	202	215
5. Employment rate (% population aged 15-64)	61.7	62.7	63.1	63.4	62.2	62.5	63.6	63.6	64.2	63.4	65.2
6. Employment rate (% population aged 20-64)	66.2	67.4	67.7	68.2	67.2	67.7	69.0	69.1	69.6	68.8	70.4
7. Employment rate (% population aged 15-24)	31.8	31.9	32.3	31.2	27.0	23.3	24.9	23.3	22.5	23.8	26.7
8. Employment rate (% population aged 25-54)	76.9	78.2	78.7	79.0	77.8	79.3	80.7	81.0	81.9	80.0	81.2
9. Employment rate (% population aged 55-64)	26.4	26.7	25.6	28.1	30.3	30.4	31.7	33.2	32.0	34.1	38.2
10. FTE employment rate (% population aged 15-64)	:	60.4	60.0	60.9	58.3	58.2	59.2	59.7	60.6	59.4	59.7
11. Self-employed (% total employment)	7.7	7.3	7.0	6.9	6.8	6.7	6.5	6.2	6.0	5.9	5.9
12. Part-time employment (% total employment)	9.8	10.4	10.4	10.7	13.4	16.4	17.4	17.1	17.8	18.0	18.2
13. Fixed term contracts (% total employees)	5.2	5.3	5.6	5.1	3.1	4.8	5.3	6.1	6.8	6.2	7.2
14. Employment in Services (% total employment)	74.3	75.4	76.1	76.2	74.8	75.0	75.3	75.6	76.1	76.7	77.1
15. Employment in Industry (% total employment)	24.1	23.1	22.5	22.4	23.5	23.4	23.1	22.8	22.3	21.8	21.3
16. Employment in Agriculture (% total employment)	1.6	1.5	1.4	1.4	1.6	1.6	1.6	1.6	1.6	1.5	1.5
17. Activity rate (% population aged 15-64)	63.2	64.1	64.4	65.2	64.6	65.8	66.6	66.7	66.9	66.8	68.7
18. Activity rate (% of population aged 15-24)	34.1	34.1	34.5	33.8	30.4	28.0	28.8	27.8	26.5	29.0	32.3
19. Activity rate (% of population aged 25-54)	78.5	79.7	80.0	81.0	80.4	83.0	83.9	84.5	84.7	83.4	84.8
20. Activity rate (% of population aged 55-64)	26.7	27.0	25.7	28.2	30.7	30.9	32.4	33.6	32.7	35.1	39.4
21. Total unemployment (000)	4	4	4	5	7	10	9	10	9	11	12
22. Unemployment rate (% labour force 15+)	2.4	2.2	1.9	2.6	3.8	5.0	4.6	4.6	4.2	4.9	5.2
23. Youth unemployment rate (% labour force 15-24)	6.9	6.6	6.2	7.0	11.2	16.4	14.3	15.8	15.6	17.3	16.9
24. Long term unemployment rate (% labour force)	0.8	0.5	0.5	0.7	1.0	1.0	1.2	1.4	1.2	1.6	1.2
25. Youth unemployment ratio (% population aged 15-24)	2.3	2.2	2.2	2.6	3.3	4.7	3.9	4.5	4.0	5.2	5.5

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	211	212	214	216	219	221	223	232	234	233	240
2. Population aged 15-64	144	146	148	149	151	152	153	153	157	161	167
3. Total employment (000)	158	167	176	179	174	176	179	181	187	199	201
4. Population in employment aged 15-64	107	109	111	112	111	111	112	111	114	115	122
5. Employment rate (% population aged 15-64)	74.5	75.0	75.0	75.1	73.3	72.8	73.3	72.6	72.3	71.5	73.2
6. Employment rate (% population aged 20-64)	79.9	80.7	80.7	80.8	79.1	78.9	79.4	78.9	78.3	77.2	79.0
7. Employment rate (% population aged 15-24)	34.1	35.0	34.6	34.3	28.0	26.0	28.4	25.4	26.5	27.0	29.1
8. Employment rate (% population aged 25-54)	92.8	92.9	93.2	93.1	91.6	92.2	92.8	92.7	92.2	90.2	90.8
9. Employment rate (% population aged 55-64)	35.8	37.2	35.9	37.7	39.7	38.3	38.3	38.7	35.6	38.7	46.5
10. FTE employment rate (% population aged 15-64)	:	75.9	74.9	76.0	72.9	72.9	73.7	73.5	73.8	72.3	71.7
11. Self-employed (% total employment)	8.2	8.1	7.7	7.9	7.2	7.5	7.1	7.1	6.8	5.9	6.8
12. Part-time employment (% total employment)	1.5	1.7	1.4	1.8	1.6	2.5	2.5	2.6	2.6	2.7	5.6
13. Fixed term contracts (% total employees)	5.2	4.6	5.2	4.7	2.4	4.1	4.9	5.7	6.2	5.9	6.3
14. Employment in Services (% total employment)	64.3	65.2	66.1	65.8	65.1	66.0	66.0	65.9	66.3	69.9	69.6
15. Employment in Industry (% total employment)	34.0	33.0	32.2	32.4	33.0	32.2	32.2	32.2	31.7	28.4	28.7
16. Employment in Agriculture (% total employment)	1.7	1.8	1.7	1.8	1.9	1.8	1.9	1.8	2.0	1.6	1.7
17. Activity rate (% population aged 15-64)	75.9	76.3	76.3	76.7	75.5	75.6	76.0	75.3	75.0	74.7	76.6
18. Activity rate (% of population aged 15-24)	36.3	37.2	37.1	36.6	31.0	29.6	32.1	30.6	30.6	30.9	34.9
19. Activity rate (% of population aged 25-54)	94.2	94.2	94.4	94.9	94.1	95.3	95.5	95.3	94.9	93.7	94.1
20. Activity rate (% of population aged 55-64)	36.2	37.9	36.1	37.9	40.1	38.8	39.4	38.9	36.4	39.7	47.7
21. Total unemployment (000)	2	2	2	2	3	4	4	4	4	5	6
22. Unemployment rate (% labour force 15+)	1.8	1.8	1.6	2.0	3.0	3.6	3.6	3.6	3.4	4.1	4.6
23. Youth unemployment rate (% labour force 15-24)	6.1	6.0	6.6	5.8	9.9	12.0	12.3	16.3	13.7	13.4	15.4
24. Long term unemployment rate (% labour force)	0.7	0.5	0.6	0.6	0.9	0.8	1.2	1.3	1.3	1.2	0.9
25. Youth unemployment ratio (% population aged 15-24)	2.2	2.2	2.5	2.3	3.0	3.6	3.8	5.2	4.1	3.9	5.8

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	215	218	219	221	224	224	227	225	230	235	241
2. Population aged 15-64	141	142	145	146	148	149	151	154	159	157	163
3. Total employment (000)	92	97	103	109	119	123	129	138	146	150	151
4. Population in employment aged 15-64	69	71	74	76	76	77	81	84	89	87	93
5. Employment rate (% population aged 15-64)	48.6	50.1	50.9	51.6	50.9	51.9	53.7	54.6	56.1	55.1	57.0
6. Employment rate (% population aged 20-64)	52.1	53.8	54.5	55.4	55.1	56.2	58.4	59.4	61.0	60.1	61.5
7. Employment rate (% population aged 15-24)	29.4	28.8	29.8	28.0	26.1	20.5	21.3	21.2	18.4	20.6	24.2
8. Employment rate (% population aged 25-54)	60.5	63.0	63.9	64.6	63.8	66.2	68.4	69.5	71.7	69.5	71.4
9. Employment rate (% population aged 55-64)	17.2	16.4	15.2	18.4	20.6	22.2	24.9	27.8	28.6	29.3	29.4
10. FTE employment rate (% population aged 15-64)	:	44.6	45.1	45.7	43.7	43.3	44.4	46.1	47.5	46.3	47.8
11. Self-employed (% total employment)	6.7	6.0	5.8	5.3	6.1	5.5	5.7	5.1	5.0	5.8	4.6
12. Part-time employment (% total employment)	24.0	25.1	25.8	25.3	30.7	36.3	38.2	36.2	37.2	38.3	35.1
13. Fixed term contracts (% total employees)	5.2	6.6	6.4	5.6	4.2	5.8	5.8	6.6	7.6	6.6	8.4
14. Employment in Services (% total employment)	91.7	92.7	92.6	92.6	90.9	89.8	90.5	91.0	90.9	88.5	91.1
15. Employment in Industry (% total employment)	6.9	6.3	6.5	6.5	7.9	8.8	8.4	7.9	8.0	10.3	7.8
16. Employment in Agriculture (% total employment)	1.4	1.1	0.9	0.9	1.2	1.3	1.1	1.2	1.1	1.2	1.2
17. Activity rate (% population aged 15-64)	50.3	51.6	52.2	53.6	53.5	55.8	57.0	58.2	58.9	58.7	60.7
18. Activity rate (% of population aged 15-24)	31.7	30.9	31.8	30.9	29.7	26.4	25.5	25.0	22.3	27.1	29.5
19. Activity rate (% of population aged 25-54)	62.3	64.7	65.3	66.8	66.5	70.4	72.2	73.8	74.7	72.9	75.3
20. Activity rate (% of population aged 55-64)	17.4	16.4	15.2	18.5	21.2	22.6	25.1	28.5	29.1	30.3	30.6
21. Total unemployment (000)	2	2	2	3	4	6	5	5	5	6	6
22. Unemployment rate (% labour force 15+)	3.3	2.9	2.4	3.5	4.9	6.8	6.0	6.0	5.1	5.9	6.0
23. Youth unemployment rate (% labour force 15-24)	7.9	7.2	5.7	8.6	12.5	21.5	16.9	15.2	18.2	21.9	18.7
24. Long term unemployment rate (% labour force)	0.8	0.5	0.6	0.8	0.9	1.3	1.2	1.6	1.1	2.1	1.6
25. Youth unemployment ratio (% population aged 15-24)	2.3	2.1	2.0	2.9	3.6	5.9	4.1	3.8	3.9	6.5	5.2

Labour market indicators: Hungary

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	9 972	9 924	10 038	10 012	9 980	9 944	9 932	9 921	9 907	9 893	9 867
2. Population aged 15-64	6 783	6 764	6 851	6 849	6 836	6 826	6 815	6 816	6 800	6 794	6 771
3. Total employment (000)	4 208	4 250	4 232	4 224	4 227	4 166	4 156	4 182	4 169	4 116	3 999
4. Population in employment aged 15-64	3 769	3 806	3 850	3 850	3 897	3 875	3 879	3 906	3 897	3 849	3 751
5. Employment rate (% population aged 15-64)	55.6	56.3	56.2	56.2	57.0	56.8	56.9	57.3	57.3	56.7	55.4
6. Employment rate (% population aged 20-64)	60.6	61.2	61.3	61.4	62.4	62.1	62.2	62.6	62.6	61.9	60.5
7. Employment rate (% population aged 15-24)	34.9	33.5	30.7	28.5	26.8	23.6	21.8	21.7	21.0	20.0	18.1
8. Employment rate (% population aged 25-54)	72.3	73.0	73.1	73.0	73.7	73.6	73.7	74.2	74.6	74.4	72.9
9. Employment rate (% population aged 55-64)	19.4	22.2	23.5	25.6	28.9	31.1	33.0	33.6	33.1	31.4	32.8
10. FTE employment rate (% population aged 15-64)	:	56.0	56.0	56.2	56.9	56.5	56.5	57.0	56.9	56.2	54.6
11. Self-employed (% total employment)	17.4	19.1	15.2	14.8	13.7	13.6	12.7	12.2	11.7	11.4	11.0
12. Part-time employment (% total employment)	3.8	3.5	3.6	3.6	4.4	4.7	4.1	4.0	4.1	4.6	5.6
13. Fixed term contracts (% total employees)	6.2	7.1	7.5	7.3	7.5	6.8	7.0	6.7	7.3	7.9	8.5
14. Employment in Services (% total employment)	54.5	55.7	56.0	56.3	58.3	59.0	59.9	60.2	60.2	61.0	62.3
15. Employment in Industry (% total employment)	32.0	31.9	32.6	32.6	32.2	32.2	31.8	31.8	32.2	31.8	30.7
16. Employment in Agriculture (% total employment)	13.5	12.4	11.5	11.1	9.4	8.8	8.3	8.0	7.6	7.2	7.1
17. Activity rate (% population aged 15-64)	59.8	60.1	59.6	59.7	60.6	60.5	61.3	62.0	61.9	61.5	61.6
18. Activity rate (% of population aged 15-24)	40.1	38.3	34.6	32.6	31.0	27.9	27.1	26.8	25.6	25.0	24.6
19. Activity rate (% of population aged 25-54)	77.1	77.3	77.1	77.0	77.8	77.9	78.7	79.6	80.0	80.1	80.2
20. Activity rate (% of population aged 55-64)	19.9	22.9	24.2	26.4	29.8	32.0	34.3	34.9	34.5	33.1	35.0
21. Total unemployment (000)	282	261	235	240	245	253	302	317	312	329	421
22. Unemployment rate (% labour force 15+)	6.9	6.4	5.7	5.8	5.9	6.1	7.2	7.5	7.4	7.8	10.0
23. Youth unemployment rate (% labour force 15-24)	12.6	12.4	11.3	12.7	13.4	15.5	19.4	19.1	18.0	19.9	26.5
24. Long term unemployment rate (% labour force)	3.3	3.1	2.6	2.5	2.4	2.7	3.2	3.4	3.4	3.6	4.2
25. Youth unemployment ratio (% population aged 15-24)	5.1	4.8	3.9	4.1	4.1	4.3	5.2	5.1	4.6	5.0	6.5

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 750	4 726	4 756	4 742	4 722	4 703	4 698	4 692	4 691	4 680	4 671
2. Population aged 15-64	3 315	3 313	3 340	3 338	3 329	3 329	3 328	3 328	3 319	3 321	3 316
3. Total employment (000)	2 312	2 334	2 312	2 305	2 292	2 262	2 254	2 274	2 276	2 239	2 162
4. Population in employment aged 15-64	2 069	2 089	2 102	2 100	2 113	2 102	2 101	2 122	2 126	2 093	2 026
5. Employment rate (% population aged 15-64)	62.4	63.1	62.9	62.9	63.5	63.1	63.1	63.8	64.0	63.0	61.1
6. Employment rate (% population aged 20-64)	68.3	68.9	68.9	69.0	69.6	69.2	69.9	70.2	69.0	67.0	67.0
7. Employment rate (% population aged 15-24)	38.7	37.3	34.4	31.2	29.8	26.3	24.4	24.5	24.2	23.2	19.9
8. Employment rate (% population aged 25-54)	78.7	79.2	79.4	79.7	80.1	80.5	80.3	81.0	81.3	81.0	78.9
9. Employment rate (% population aged 55-64)	29.7	33.2	34.1	35.5	37.8	38.4	40.6	41.4	41.7	38.5	39.9
10. FTE employment rate (% population aged 15-64)	:	63.6	63.4	63.6	64.0	63.7	63.3	64.1	64.3	63.1	60.9
11. Self-employed (% total employment)	21.4	23.9	18.8	18.3	17.3	16.9	15.8	15.1	14.2	14.2	13.5
12. Part-time employment (% total employment)	2.4	2.0	2.2	2.3	2.8	3.2	2.7	2.6	2.8	3.3	3.9
13. Fixed term contracts (% total employees)	6.5	7.7	8.1	7.9	8.3	7.5	7.6	7.4	7.7	8.7	9.0
14. Employment in Services (% total employment)	43.6	45.3	45.9	46.0	47.3	47.8	48.3	48.7	48.6	50.2	50.9
15. Employment in Industry (% total employment)	38.1	37.8	38.7	39.3	39.5	39.8	40.4	40.4	40.9	40.0	39.6
16. Employment in Agriculture (% total employment)	18.3	16.9	15.4	14.7	13.3	12.3	11.3	10.9	10.6	9.8	9.5
17. Activity rate (% population aged 15-64)	67.6	67.9	67.2	67.1	67.6	67.2	67.9	68.7	69.0	68.3	68.2
18. Activity rate (% of population aged 15-24)	45.0	43.2	39.2	36.0	34.6	31.4	30.3	30.1	29.3	28.6	27.7
19. Activity rate (% of population aged 25-54)	84.3	84.4	84.2	84.3	84.8	85.0	85.5	86.5	86.9	87.0	86.9
20. Activity rate (% of population aged 55-64)	30.8	34.5	35.4	36.9	38.9	39.7	42.3	43.1	43.6	40.5	42.6
21. Total unemployment (000)	168	159	143	139	139	137	159	165	164	174	234
22. Unemployment rate (% labour force 15+)	7.5	7.0	6.3	6.2	6.1	6.1	7.0	7.2	7.1	7.6	10.3
23. Youth unemployment rate (% labour force 15-24)	13.7	13.6	12.3	13.2	13.8	16.2	19.6	18.6	17.6	19.1	28.2
24. Long term unemployment rate (% labour force)	3.7	3.5	3.0	2.8	2.5	2.8	3.2	3.3	3.3	3.6	4.2
25. Youth unemployment ratio (% population aged 15-24)	6.2	5.9	4.8	4.8	4.8	5.1	6.0	5.6	5.2	5.5	7.8

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 222	5 199	5 282	5 270	5 258	5 241	5 234	5 228	5 216	5 212	5 196
2. Population aged 15-64	3 468	3 452	3 511	3 512	3 506	3 497	3 486	3 488	3 481	3 473	3 455
3. Total employment (000)	1 896	1 917	1 920	1 918	1 935	1 905	1 902	1 908	1 893	1 876	1 837
4. Population in employment aged 15-64	1 700	1 717	1 747	1 750	1 785	1 773	1 777	1 784	1 772	1 756	1 725
5. Employment rate (% population aged 15-64)	49.0	49.7	49.8	49.8	50.9	50.7	51.0	51.1	50.9	50.6	49.9
6. Employment rate (% population aged 20-64)	53.2	53.9	54.1	54.3	55.5	55.3	55.6	55.7	55.5	55.1	54.4
7. Employment rate (% population aged 15-24)	31.1	29.7	26.9	25.8	23.8	20.8	19.2	18.8	17.8	16.8	16.3
8. Employment rate (% population aged 25-54)	66.1	66.9	67.0	66.5	67.4	67.0	67.2	67.6	67.9	67.9	66.9
9. Employment rate (% population aged 55-64)	11.3	13.3	14.9	17.6	21.8	25.0	26.7	27.1	26.2	25.7	27.0
10. FTE employment rate (% population aged 15-64)	:	48.7	48.8	49.1	50.0	49.5	50.0	50.2	49.9	49.5	48.6
11. Self-employed (% total employment)	12.4	13.3	10.8	10.7	9.4	9.7	9.1	8.7	8.6	8.0	7.9
12. Part-time employment (% total employment)	5.5	5.2	5.2	5.1	6.2	6.3	5.8	5.6	5.8	6.2	7.5
13. Fixed term contracts (% total employees)	5.8	6.5	6.8	6.6	6.7	6.1	6.4	6.0	6.8	7.0	7.8
14. Employment in Services (% total employment)	68.4	68.9	68.6	69.1	71.9	72.8	74.0	74.3	74.7	74.6	76.2
15. Employment in Industry (% total employment)	24.2	24.4	24.9	24.2	23.3	22.7	21.4	21.2	21.5	21.4	19.6
16. Employment in Agriculture (% total employment)	7.3	6.7	6.5	6.7	4.7	4.5	4.6	4.5	3.9	4.0	4.1
17. Activity rate (% population aged 15-64)	52.3	52.7	52.4	52.7	53.9	54.0	55.1	55.5	55.1	55.0	55.3
18. Activity rate (% of population aged 15-24)	35.0	33.3	29.9	29.3	27.3	24.3	23.8	23.4	21.8	21.3	21.5
19. Activity rate (% of population aged 25-54)	70.0	70.4	70.1	69.9	71.0	70.9	72.1	72.9	73.2	73.3	73.6
20. Activity rate (% of population aged 55-64)	11.4	13.5	15.1	18.0	22.4	25.8	27.7	28.2	27.3	27.0	28.8
21. Total unemployment (000)	114	102	92	101	106	116	143	152	148	155	187
22. Unemployment rate (% labour force 15+)	6.3	5.6	5.0	5.4	5.6	6.1	7.4	7.8	7.7	8.1	9.7
23. Youth unemployment rate (% labour force 15-24)	11.2	10.8	10.0	11.9	12.8	14.4	19.0	19.8	18.6	20.9	24.2
24. Long term unemployment rate (% labour force)	2.9	2.5	2.1	2.2	2.3	2.6	3.2	3.4	3.6	3.7	4.1
25. Youth unemployment ratio (% population aged 15-24)	4.0	3.6	3.0	3.5	3.5	3.5	4.5	4.6	4.1	4.4	5.2

Labour market indicators: Malta

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	433	438	396	399	400	402	406	409	411	414
2. Population aged 15-64	:	263	267	269	271	272	274	281	285	288	292
3. Total employment (000)	:	146	149	150	151	150	153	155	160	164	163
4. Population in employment aged 15-64	:	143	145	147	147	147	148	151	156	159	160
5. Employment rate (% population aged 15-64)	:	54.2	54.3	54.4	54.2	54.0	53.9	53.6	54.6	55.3	54.9
6. Employment rate (% population aged 20-64)	:	57.2	57.2	57.7	57.8	57.9	57.9	57.6	58.5	59.1	58.8
7. Employment rate (% population aged 15-24)	:	52.8	52.3	50.5	47.2	46.2	45.3	44.2	45.7	45.8	44.1
8. Employment rate (% population aged 25-54)	:	60.6	61.0	61.6	61.8	62.1	62.4	64.4	66.2	67.3	68.0
9. Employment rate (% population aged 55-64)	:	28.5	29.4	30.1	32.5	31.5	30.8	29.8	28.5	29.2	28.1
10. FTE employment rate (% population aged 15-64)	:	54.2	53.4	53.7	53.0	52.6	51.6	51.9	52.5	53.3	53.1
11. Self-employed (% total employment)	:	11.8	11.2	11.2	11.5	11.7	11.8	11.8	11.9	12.0	12.3
12. Part-time employment (% total employment)	:	6.8	7.4	8.3	9.2	8.7	9.6	10.0	10.9	11.5	11.3
13. Fixed term contracts (% total employees)	:	4.1	4.0	4.3	3.6	4.0	4.5	3.7	5.1	4.3	4.8
14. Employment in Services (% total employment)	63.1	71.0	71.1	70.5	71.7	71.8	72.3	73.1	74.1	75.0	77.8
15. Employment in Industry (% total employment)	34.9	26.4	26.3	27.2	26.0	25.3	24.8	24.0	23.0	22.4	19.9
16. Employment in Agriculture (% total employment)	2.0	2.6	2.6	2.3	2.3	3.0	2.9	3.0	3.0	2.6	2.3
17. Activity rate (% population aged 15-64)	:	58.0	58.1	58.5	58.6	58.2	58.1	57.6	58.4	58.8	59.1
18. Activity rate (% of population aged 15-24)	:	58.7	60.8	58.8	56.5	55.3	54.4	52.6	53.1	52.2	51.5
19. Activity rate (% of population aged 25-54)	:	64.3	63.8	65.0	65.4	65.3	65.7	67.9	69.7	70.8	71.9
20. Activity rate (% of population aged 55-64)	:	29.6	30.1	30.7	33.4	32.3	31.9	30.6	29.6	30.4	29.8
21. Total unemployment (000)	11	10	12	12	12	12	12	12	11	10	12
22. Unemployment rate (% labour force 15+)	:	6.7	7.6	7.5	7.6	7.4	7.2	7.1	6.4	5.9	6.9
23. Youth unemployment rate (% labour force 15-24)	:	13.7	18.8	17.1	17.2	16.8	16.2	16.5	13.8	11.9	14.3
24. Long term unemployment rate (% labour force)	:	4.5	3.7	3.2	3.2	3.4	3.3	2.8	2.7	2.5	3.0
25. Youth unemployment ratio (% population aged 15-24)	:	5.9	8.5	8.3	9.3	9.2	9.1	8.4	7.4	6.4	7.4

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	211	213	196	198	198	199	202	203	204	207
2. Population aged 15-64	:	132	134	135	136	137	138	143	145	147	149
3. Total employment (000)	:	102	105	104	105	105	105	107	109	109	108
4. Population in employment aged 15-64	:	99	103	101	102	103	102	105	106	106	107
5. Employment rate (% population aged 15-64)	:	75.0	76.2	74.7	74.5	75.1	73.8	73.3	72.9	72.5	71.5
6. Employment rate (% population aged 20-64)	:	80.9	82.0	81.0	80.6	81.2	80.6	79.2	78.7	78.2	76.9
7. Employment rate (% population aged 15-24)	:	53.4	54.3	51.7	49.1	50.4	46.7	46.9	48.1	47.6	46.2
8. Employment rate (% population aged 25-54)	:	88.1	90.0	88.5	88.3	88.8	88.9	89.6	90.0	89.5	89.0
9. Employment rate (% population aged 55-64)	:	50.8	50.4	50.8	53.8	53.4	50.8	49.4	45.9	46.4	45.3
10. FTE employment rate (% population aged 15-64)	:	76.5	76.3	75.7	75.3	75.5	72.7	72.9	72.6	72.6	71.5
11. Self-employed (% total employment)	:	14.4	13.6	14.1	13.8	14.5	14.8	14.8	14.6	15.1	15.3
12. Part-time employment (% total employment)	:	3.0	3.2	3.9	3.8	4.1	4.5	4.9	4.4	4.5	5.1
13. Fixed term contracts (% total employees)	:	3.4	2.8	3.4	3.0	3.1	3.7	2.7	3.7	3.4	3.7
14. Employment in Services (% total employment)	:	66.5	:	65.8	66.1	66.2	66.0	66.7	67.3	67.8	70.9
15. Employment in Industry (% total employment)	:	30.1	:	31.0	30.8	29.9	30.0	29.2	28.5	28.6	25.9
16. Employment in Agriculture (% total employment)	:	3.4	:	3.2	3.1	3.9	4.0	4.0	4.1	3.5	3.2
17. Activity rate (% population aged 15-64)	:	80.5	81.3	80.1	80.2	80.2	79.1	78.1	77.6	76.9	76.6
18. Activity rate (% of population aged 15-24)	:	60.9	64.8	61.1	58.8	59.9	56.4	56.6	57.1	55.3	54.9
19. Activity rate (% of population aged 25-54)	:	93.5	94.0	93.2	93.5	93.3	93.2	93.9	94.2	93.7	93.8
20. Activity rate (% of population aged 55-64)	:	52.7	51.6	52.0	55.5	54.7	53.1	50.6	47.3	47.9	47.8
21. Total unemployment (000)	7	7	8	7	8	7	7	7	7	6	8
22. Unemployment rate (% labour force 15+)	:	6.4	6.9	6.6	6.9	6.6	6.4	6.3	5.9	5.6	6.6
23. Youth unemployment rate (% labour force 15-24)	:	14.9	20.5	17.6	16.8	16.3	16.6	17.8	15.7	13.6	15.8
24. Long term unemployment rate (% labour force)	:	4.5	4.0	3.5	3.4	3.6	3.4	3.0	2.8	2.6	3.4
25. Youth unemployment ratio (% population aged 15-24)	:	7.5	10.5	9.4	9.7	9.5	9.7	9.7	9.0	7.6	8.7

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	222	225	200	201	202	203	204	205	207	208
2. Population aged 15-64	:	131	133	134	135	136	136	139	140	142	143
3. Total employment (000)	:	44	44	46	47	45	47	47	51	54	55
4. Population in employment aged 15-64	:	43	43	45	45	44	46	46	50	53	54
5. Employment rate (% population aged 15-64)	:	33.1	32.1	33.9	33.6	32.7	33.7	33.4	35.7	37.4	37.7
6. Employment rate (% population aged 20-64)	:	33.2	32.1	34.4	34.9	34.3	35.1	35.4	37.4	39.4	39.8
7. Employment rate (% population aged 15-24)	:	52.2	50.2	49.2	45.2	41.8	43.9	41.3	43.2	43.9	41.8
8. Employment rate (% population aged 25-54)	:	32.7	31.4	34.2	34.7	34.8	35.4	38.1	41.3	44.1	45.9
9. Employment rate (% population aged 55-64)	:	8.4	10.2	10.9	13.0	11.5	12.4	10.8	11.6	12.5	11.2
10. FTE employment rate (% population aged 15-64)	:	31.7	30.4	31.7	30.6	29.7	30.4	30.4	31.8	33.5	34.1
11. Self-employed (% total employment)	:	5.9	5.6	4.6	6.4	5.3	5.2	5.1	6.1	5.6	6.4
12. Part-time employment (% total employment)	:	15.5	17.5	18.3	21.3	19.3	21.1	21.5	24.6	25.6	23.6
13. Fixed term contracts (% total employees)	:	5.6	6.4	5.9	4.8	5.8	6.1	5.8	7.7	5.7	6.7
14. Employment in Services (% total employment)	:	80.9	:	80.7	83.6	84.5	85.9	87.0	88.1	89.6	90.8
15. Employment in Industry (% total employment)	:	18.2	:	19.0	15.8	14.7	13.6	12.4	11.4	9.7	8.5
16. Employment in Agriculture (% total employment)	:	0.9	:	:	0.6	0.9	0.6	0.6	0.6	0.7	0.7
17. Activity rate (% population aged 15-64)	:	35.2	34.6	36.7	36.8	36.0	36.9	36.5	38.6	40.2	40.8
18. Activity rate (% of population aged 15-24)	:	56.3	56.6	56.4	54.0	50.6	52.4	48.3	48.9	48.9	47.7
19. Activity rate (% of population aged 25-54)	:	34.6	33.1	36.2	36.8	36.8	37.6	40.8	44.0	46.7	48.9
20. Activity rate (% of population aged 55-64)	:	8.8	10.3	11.1	13.1	11.9	12.4	11.2	12.3	13.4	12.1
21. Total unemployment (000)	4	4	5	5	5	4	5	4	4	4	4
22. Unemployment rate (% labour force 15+)	:	7.4	9.3	9.3	9.1	9.0	8.9	8.7	7.5	6.6	7.6
23. Youth unemployment rate (% labour force 15-24)	:	12.3	16.9	16.7	17.8	17.4	15.8	14.9	11.6	9.8	12.5
24. Long term unemployment rate (% labour force)	:	4.5	2.7	2.5	2.4	3.0	3.4	2.4	2.4	2.5	2.4
25. Youth unemployment ratio (% population aged 15-24)	:	4.1	6.4	7.2	8.8	8.8	8.5	6.9	5.7	5.0	5.9

Indicator 1: 2000-2001 estimate.

Labour market indicators: Netherlands

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	15 591	15 680	15 837	15 964	16 037	16 119	16 107	16 142	16 180	16 190	16 223
2. Population aged 15-64	10 670	10 722	10 801	10 871	10 920	10 960	10 943	10 964	10 986	10 970	10 970
3. Total employment (000)	7 937	8 116	8 282	8 324	8 283	8 211	8 252	8 392	8 606	8 731	8 631
4. Population in employment aged 15-64	7 650	7 819	8 005	8 089	8 042	8 014	8 013	8 152	8 345	8 468	8 443
5. Employment rate (% population aged 15-64)	71.7	72.9	74.1	74.4	73.6	73.1	73.2	74.3	76.0	77.2	77.0
6. Employment rate (% population aged 20-64)	73.5	74.3	75.4	75.8	75.2	74.9	75.1	76.3	77.8	78.9	78.8
7. Employment rate (% population aged 15-24)	64.5	68.7	70.4	70.0	68.3	65.9	65.2	66.2	68.4	69.3	68.0
8. Employment rate (% population aged 25-54)	81.1	81.7	82.8	82.8	82.6	82.5	82.9	84.2	85.4	86.8	86.3
9. Employment rate (% population aged 55-64)	36.4	38.2	39.6	42.3	44.3	45.2	46.1	47.7	50.9	53.0	55.1
10. FTE employment rate (% population aged 15-64)	:	57.5	58.1	58.1	57.2	56.5	56.4	57.4	58.6	59.6	59.2
11. Self-employed (% total employment)	14.2	13.9	13.6	13.5	13.5	13.7	13.9	13.9	13.7	13.5	13.4
12. Part-time employment (% total employment)	39.7	41.5	42.2	43.9	45.0	45.5	46.1	46.2	46.8	47.3	48.3
13. Fixed term contracts (% total employees)	12.3	13.7	14.3	14.4	14.5	14.8	15.5	16.6	18.1	18.2	18.2
14. Employment in Services (% total employment)	76.9	77.1	77.5	78.0	78.5	78.9	79.3	79.7	80.1	80.2	80.5
15. Employment in Industry (% total employment)	19.6	19.4	19.0	18.6	18.1	17.8	17.5	17.2	16.9	16.9	16.7
16. Employment in Agriculture (% total employment)	3.5	3.4	3.4	3.4	3.4	3.3	3.2	3.1	3.0	2.9	2.8
17. Activity rate (% population aged 15-64)	74.1	75.2	75.8	76.5	76.5	76.6	76.9	77.4	78.5	79.3	79.7
18. Activity rate (% of population aged 15-24)	69.3	72.9	73.8	73.7	72.9	71.6	71.0	70.8	72.7	73.2	72.8
19. Activity rate (% of population aged 25-54)	83.3	83.7	84.3	84.8	85.3	85.9	86.5	87.1	87.6	88.5	88.8
20. Activity rate (% of population aged 55-64)	37.3	39.0	40.2	43.3	45.5	46.9	48.1	49.6	52.8	54.7	56.8
21. Total unemployment (000)	253	230	183	232	311	387	402	336	278	243	304
22. Unemployment rate (% labour force 15+)	3.2	2.8	2.2	2.8	3.7	4.6	4.7	3.9	3.2	2.8	3.4
23. Youth unemployment rate (% labour force 15-24)	6.8	5.7	4.5	5.0	6.3	8.0	8.2	6.6	5.9	5.3	6.6
24. Long term unemployment rate (% labour force)	1.2	0.8	0.6	0.7	1.0	1.6	1.9	1.7	1.3	1.0	0.8
25. Youth unemployment ratio (% population aged 15-24)	4.8	4.2	3.4	3.7	4.6	5.7	5.8	4.6	4.3	3.9	4.8

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	7 741	7 789	7 865	7 930	7 969	8 012	7 992	8 006	8 022	8 027	8 043
2. Population aged 15-64	5 405	5 431	5 469	5 502	5 525	5 543	5 519	5 524	5 529	5 516	5 512
3. Total employment (000)	4 543	4 635	4 694	4 680	4 626	4 572	4 561	4 625	4 709	4 751	4 667
4. Population in employment aged 15-64	4 372	4 460	4 526	4 536	4 479	4 447	4 411	4 471	4 547	4 588	4 540
5. Employment rate (% population aged 15-64)	80.9	82.1	82.8	82.4	81.1	80.2	79.9	80.9	82.2	83.2	82.4
6. Employment rate (% population aged 20-64)	83.6	84.3	84.9	84.6	83.4	82.7	82.4	83.5	84.8	85.5	84.9
7. Employment rate (% population aged 15-24)	64.6	70.0	71.2	70.6	68.9	66.3	65.5	67.2	68.9	69.8	67.5
8. Employment rate (% population aged 25-54)	91.7	92.2	92.7	91.8	90.6	90.2	90.3	91.4	92.1	93.0	92.0
9. Employment rate (% population aged 55-64)	49.6	50.2	51.1	54.6	56.7	56.9	56.9	58.0	61.5	63.7	65.4
10. FTE employment rate (% population aged 15-64)	:	74.7	75.0	74.7	73.2	72.0	71.7	72.5	73.5	74.3	73.2
11. Self-employed (% total employment)	15.8	15.7	15.3	15.5	15.9	16.0	16.3	16.4	16.4	16.2	16.0
12. Part-time employment (% total employment)	18.0	19.3	20.0	21.2	22.0	22.3	22.6	23.0	23.6	23.9	24.9
13. Fixed term contracts (% total employees)	9.7	11.2	11.9	12.1	12.9	13.4	14.3	15.4	16.6	16.6	16.4
14. Employment in Services (% total employment)	68.0	68.2	68.6	68.8	69.2	69.4	69.9	70.2	70.9	72.4	72.6
15. Employment in Industry (% total employment)	27.8	27.6	27.4	27.0	26.5	26.3	25.9	25.7	25.2	24.0	23.9
16. Employment in Agriculture (% total employment)	4.3	4.2	4.1	4.2	4.3	4.3	4.1	4.1	3.9	3.6	3.5
17. Activity rate (% population aged 15-64)	82.9	84.1	84.3	84.5	84.0	83.9	83.7	83.9	84.6	85.3	85.3
18. Activity rate (% of population aged 15-24)	68.8	73.7	74.4	74.5	73.5	72.0	71.2	71.5	73.0	73.7	72.7
19. Activity rate (% of population aged 25-54)	93.4	93.9	94.0	93.6	93.5	93.7	93.8	94.1	94.0	94.5	94.4
20. Activity rate (% of population aged 55-64)	50.6	51.2	51.8	55.8	58.2	59.1	59.5	60.4	64.0	65.9	67.6
21. Total unemployment (000)	104	102	83	116	165	204	209	167	133	122	162
22. Unemployment rate (% labour force 15+)	2.3	2.2	1.8	2.5	3.5	4.3	4.5	3.5	2.8	2.5	3.4
23. Youth unemployment rate (% labour force 15-24)	5.2	4.9	4.3	5.2	6.3	7.9	8.0	6.1	5.6	5.4	7.1
24. Long term unemployment rate (% labour force)	0.9	0.6	0.5	0.6	1.0	1.5	1.9	1.6	1.2	0.9	0.8
25. Youth unemployment ratio (% population aged 15-24)	4.2	3.7	3.2	3.9	4.6	5.7	5.7	4.3	4.1	4.0	5.2

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	7 850	7 890	7 972	8 035	8 068	8 107	8 116	8 136	8 157	8 164	8 181
2. Population aged 15-64	5 266	5 291	5 332	5 368	5 395	5 417	5 424	5 441	5 457	5 454	5 458
3. Total employment (000)	3 394	3 480	3 588	3 644	3 657	3 639	3 691	3 768	3 897	3 980	3 964
4. Population in employment aged 15-64	3 278	3 359	3 479	3 553	3 562	3 567	3 603	3 681	3 798	3 880	3 903
5. Employment rate (% population aged 15-64)	62.3	63.5	65.2	66.2	66.0	65.8	66.4	67.7	69.6	71.1	71.5
6. Employment rate (% population aged 20-64)	63.1	64.1	65.7	66.8	66.9	66.9	67.6	69.0	70.7	72.2	72.7
7. Employment rate (% population aged 15-24)	64.4	67.3	69.6	69.5	67.8	65.4	64.9	65.1	67.9	68.8	68.4
8. Employment rate (% population aged 25-54)	70.2	70.8	72.5	73.6	74.4	74.6	75.5	77.0	78.7	80.5	80.7
9. Employment rate (% population aged 55-64)	23.1	26.1	28.0	29.9	31.8	33.4	35.2	37.2	40.1	42.2	44.7
10. FTE employment rate (% population aged 15-64)	:	40.5	41.6	42.0	41.7	41.5	41.8	43.0	44.4	45.7	45.9
11. Self-employed (% total employment)	12.1	11.5	11.4	10.9	10.3	10.9	10.9	10.8	10.5	10.3	10.4
12. Part-time employment (% total employment)	68.9	71.0	71.3	73.1	74.1	74.7	75.1	74.7	75.0	75.3	75.8
13. Fixed term contracts (% total employees)	15.6	16.8	17.4	17.1	16.4	16.5	16.9	18.0	19.7	20.0	20.3
14. Employment in Services (% total employment)	89.2	89.2	89.5	89.9	90.5	90.8	90.8	91.2	91.2	90.7	91.0
15. Employment in Industry (% total employment)	8.3	8.3	7.9	7.8	7.4	7.1	7.1	6.8	6.8	7.3	7.1
16. Employment in Agriculture (% total employment)	2.5	2.4	2.6	2.3	2.2	2.1	2.1	2.0	1.9	2.0	1.9
17. Activity rate (% population aged 15-64)	65.2	66.0	67.1	68.3	68.7	69.2	70.0	70.7	72.2	73.3	74.1
18. Activity rate (% of population aged 15-24)	69.8	72.0	73.1	73.0	72.3	71.1	70.8	70.1	72.4	72.6	72.9
19. Activity rate (% of population aged 25-54)	72.9	73.2	74.3	75.7	77.0	77.9	79.0	80.1	81.2	82.5	83.0
20. Activity rate (% of population aged 55-64)	24.0	26.7	28.4	30.6	32.6	34.4	36.5	38.6	41.4	43.5	46.0
21. Total unemployment (000)	150	128	100	116	145	183	194	169	145	121	142
22. Unemployment rate (% labour force 15+)	4.4	3.6	2.8	3.1	3.9	4.8	5.1	4.4	3.6	3.0	3.5
23. Youth unemployment rate (% labour force 15-24)	8.5	6.5	4.8	4.8	6.3	8.1	8.4	7.1	6.2	5.2	6.1
24. Long term unemployment rate (% labour force)	1.5	1.0	0.8	0.9	1.1	1.6	1.9	1.8	1.4	1.0	0.9
25. Youth unemployment ratio (% population aged 15-24)	5.4	4.7	3.6	3.5	4.6	5.7	5.9	4.9	4.5	3.8	4.5

Labour market indicators: Austria

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	7 930	7 944	7 963	7 893	7 998	8 045	8 109	8 155	8 191	8 220	8 238
2. Population aged 15-64	5 345	5 375	5 404	5 356	5 459	5 485	5 516	5 532	5 551	5 576	5 588
3. Total employment (000)	3 753	3 788	3 816	3 812	3 810	3 863	3 920	3 974	4 046	4 117	4 080
4. Population in employment aged 15-64	3 666	3 678	3 707	3 682	3 763	3 716	3 786	3 881	3 963	4 020	4 002
5. Employment rate (% population aged 15-64)	68.6	68.5	68.5	68.7	68.9	67.8	68.6	70.2	71.4	72.1	71.6
6. Employment rate (% population aged 20-64)	71.4	71.4	71.5	71.8	72.0	70.8	71.7	73.2	74.4	75.1	74.7
7. Employment rate (% population aged 15-24)	54.1	52.4	51.3	51.7	51.1	51.9	53.1	54.0	55.5	55.9	54.5
8. Employment rate (% population aged 25-54)	81.9	82.6	82.9	83.6	84.0	82.6	82.6	83.5	84.0	84.4	84.0
9. Employment rate (% population aged 55-64)	29.7	28.8	28.9	29.1	30.3	28.8	31.8	35.5	38.6	41.0	41.1
10. FTE employment rate (% population aged 15-64)	:	63.5	63.4	62.9	63.2	60.6	61.8	63.0	63.8	64.3	63.5
11. Self-employed (% total employment)	14.1	13.9	14.0	14.1	14.2	14.5	14.7	14.5	14.4	14.2	14.2
12. Part-time employment (% total employment)	16.4	16.3	18.2	19.0	18.7	19.8	21.1	21.8	22.6	23.3	24.6
13. Fixed term contracts (% total employees)	7.9	8.0	7.9	7.4	6.9	9.6	9.1	9.0	8.9	9.0	9.1
14. Employment in Services (% total employment)	67.2	68.0	68.5	69.2	70.0	70.1	70.1	70.3	70.6	70.8	71.6
15. Employment in Industry (% total employment)	26.5	26.0	25.7	25.1	24.5	24.2	23.9	24.0	24.0	23.9	23.2
16. Employment in Agriculture (% total employment)	6.4	6.0	5.9	5.7	5.4	5.6	6.0	5.7	5.4	5.2	5.2
17. Activity rate (% population aged 15-64)	71.2	71.0	71.0	71.6	72.0	71.3	72.4	73.7	74.7	75.0	75.3
18. Activity rate (% of population aged 15-24)	59.2	55.4	54.5	55.1	55.0	57.4	59.2	59.4	60.8	60.8	60.5
19. Activity rate (% of population aged 25-54)	84.7	85.3	85.4	86.6	87.3	86.3	86.4	87.1	87.4	87.3	87.7
20. Activity rate (% of population aged 55-64)	29.1	30.5	30.1	30.8	32.0	29.9	33.0	36.8	39.8	41.9	42.1
21. Total unemployment (000)	150	138	138	163	166	194	208	196	186	162	204
22. Unemployment rate (% labour force 15+)	3.9	3.6	3.6	4.2	4.3	4.9	5.2	4.8	4.4	3.8	4.8
23. Youth unemployment rate (% labour force 15-24)	5.4	5.3	5.8	6.7	8.1	9.7	10.3	9.1	8.7	8.0	10.0
24. Long term unemployment rate (% labour force)	1.2	1.0	0.9	1.1	1.1	1.4	1.3	1.3	1.2	0.9	1.0
25. Youth unemployment ratio (% population aged 15-24)	3.0	2.8	3.1	3.4	3.9	5.6	6.1	5.4	5.3	4.9	6.0

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	3 830	3 840	3 854	3 805	3 877	3 898	3 939	3 964	3 985	4 001	4 012
2. Population aged 15-64	2 663	2 678	2 693	2 653	2 718	2 728	2 745	2 753	2 763	2 775	2 780
3. Total employment (000)	2 117	2 136	2 134	2 099	2 103	2 127	2 147	2 173	2 219	2 237	2 187
4. Population in employment aged 15-64	2 067	2 069	2 060	2 026	2 076	2 043	2 070	2 118	2 168	2 178	2 138
5. Employment rate (% population aged 15-64)	77.6	77.3	76.4	76.4	76.4	74.9	75.4	76.9	78.4	78.5	76.9
6. Employment rate (% population aged 20-64)	80.7	80.6	79.6	79.6	79.6	78.0	78.5	80.0	81.6	81.7	80.1
7. Employment rate (% population aged 15-24)	58.6	57.0	55.6	56.0	55.7	56.0	56.8	58.2	59.6	59.5	57.3
8. Employment rate (% population aged 25-54)	90.8	91.3	90.6	91.1	91.1	89.4	89.1	89.9	90.6	90.2	88.5
9. Employment rate (% population aged 55-64)	42.6	41.2	40.1	39.6	40.4	38.9	41.3	45.3	49.8	51.8	51.0
10. FTE employment rate (% population aged 15-64)	:	76.2	76.0	74.8	74.9	72.6	74.1	75.5	76.8	76.5	74.7
11. Self-employed (% total employment)	14.8	14.7	14.9	15.3	15.5	16.8	16.9	16.5	16.1	16.1	16.4
12. Part-time employment (% total employment)	4.2	4.1	4.8	5.1	4.7	4.9	6.1	6.5	7.2	8.1	8.7
13. Fixed term contracts (% total employees)	7.9	7.4	7.2	7.6	7.1	10.2	9.3	9.1	8.8	8.9	9.2
14. Employment in Services (% total employment)	55.7	56.3	57.0	57.0	57.7	59.2	58.8	59.0	59.5	60.9	61.6
15. Employment in Industry (% total employment)	38.3	37.8	37.3	37.4	36.8	35.2	35.1	35.2	35.1	33.9	33.2
16. Employment in Agriculture (% total employment)	6.0	5.9	5.7	5.6	5.4	5.5	6.1	5.8	5.4	5.1	5.2
17. Activity rate (% population aged 15-64)	80.5	80.1	79.4	79.6	79.9	78.5	79.3	80.5	81.7	81.4	81.0
18. Activity rate (% of population aged 15-24)	63.9	60.3	59.2	59.9	60.3	61.7	63.6	63.9	65.0	64.6	64.0
19. Activity rate (% of population aged 25-54)	93.9	94.0	93.7	94.3	94.6	92.9	92.8	93.2	93.7	93.0	92.6
20. Activity rate (% of population aged 55-64)	42.2	43.6	42.1	42.1	42.9	40.6	43.0	47.3	51.3	52.8	52.3
21. Total unemployment (000)	71	65	66	85	84	97	108	97	90	82	114
22. Unemployment rate (% labour force 15+)	3.3	3.1	3.1	4.0	4.0	4.5	4.9	4.3	3.9	3.6	5.0
23. Youth unemployment rate (% labour force 15-24)	4.3	4.7	5.2	6.4	7.3	9.3	10.7	8.9	8.3	7.9	10.5
24. Long term unemployment rate (% labour force)	1.0	0.9	0.7	1.0	1.1	1.3	1.3	1.3	1.0	0.9	1.1
25. Youth unemployment ratio (% population aged 15-24)	2.9	3.0	3.4	3.9	4.5	5.7	6.8	5.7	5.4	5.1	6.7

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 100	4 104	4 109	4 088	4 120	4 147	4 170	4 191	4 206	4 219	4 226
2. Population aged 15-64	2 682	2 696	2 711	2 704	2 741	2 757	2 770	2 779	2 788	2 801	2 808
3. Total employment (000)	1 636	1 653	1 682	1 713	1 707	1 736	1 772	1 802	1 828	1 880	1 893
4. Population in employment aged 15-64	1 599	1 608	1 647	1 656	1 688	1 717	1 717	1 764	1 796	1 842	1 865
5. Employment rate (% population aged 15-64)	59.6	59.6	60.7	61.3	61.6	60.7	62.0	63.5	64.4	65.8	66.4
6. Employment rate (% population aged 20-64)	62.2	62.3	63.4	64.1	64.5	63.7	64.9	66.4	67.2	68.6	69.4
7. Employment rate (% population aged 15-24)	49.7	47.9	47.1	47.4	46.5	47.9	49.4	49.9	51.5	52.3	51.6
8. Employment rate (% population aged 25-54)	73.0	73.8	75.2	76.2	76.9	75.8	76.0	77.0	77.5	78.6	79.5
9. Employment rate (% population aged 55-64)	17.6	17.2	18.4	19.3	20.8	19.3	22.9	26.3	28.0	30.8	31.7
10. FTE employment rate (% population aged 15-64)	:	51.0	50.9	51.2	51.6	49.0	50.1	51.0	51.4	52.7	52.8
11. Self-employed (% total employment)	13.3	12.9	12.8	12.6	12.5	11.7	12.1	12.2	12.3	11.8	11.7
12. Part-time employment (% total employment)	32.2	32.2	35.0	35.9	36.0	38.0	39.3	40.2	41.2	41.5	42.9
13. Fixed term contracts (% total employees)	8.0	8.8	8.7	7.3	6.7	9.0	8.8	8.9	9.0	9.1	9.0
14. Employment in Services (% total employment)	81.1	82.1	82.2	83.2	84.0	82.9	83.1	83.2	83.4	82.9	83.6
15. Employment in Industry (% total employment)	12.0	11.7	11.7	11.0	10.5	11.4	11.0	11.1	11.2	11.7	11.3
16. Employment in Agriculture (% total employment)	6.8	6.1	6.1	5.9	5.5	5.8	5.9	5.7	5.4	5.3	5.2
17. Activity rate (% population aged 15-64)	62.0	62.0	62.5	63.7	64.3	64.2	65.6	67.0	67.8	68.6	69.6
18. Activity rate (% of population aged 15-24)	54.7	50.5	49.7	50.3	49.8	53.3	54.8	55.1	56.7	56.9	57.0
19. Activity rate (% of population aged 25-54)	75.5	76.5	77.2	79.0	79.9	79.6	79.9	80.9	81.1	81.5	82.8
20. Activity rate (% of population aged 55-64)	16.8	18.0	18.8	20.1	21.7	19.9	23.5	26.9	28.9	31.6	32.4
21. Total unemployment (000)	79	73	72	78	82	97	100	99	96	81	90
22. Unemployment rate (% labour force 15+)	4.7	4.3	4.2	4.4	4.7	5.4	5.5	5.2	5.0	4.1	4.6
23. Youth unemployment rate (% labour force 15-24)	6.6	6.0	6.5	7.1	8.9	10.2	9.9	9.3	9.1	8.2	9.4
24. Long term unemployment rate (% labour force)	1.5	1.2	1.1	1.2	1.1	1.4	1.4	1.3	1.4	0.9	1.0
25. Youth unemployment ratio (% population aged 15-24)	3.0	2.7	2.8	2.9	3.2	5.4	5.4	5.1	5.2	4.7	5.4

LFS indicators: 2004 break in series.

Labour market indicators: Poland

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	37 985	38 033	38 109	38 070	37 657	37 601	37 527	37 446	37 277	37 158	37 196
2. Population aged 15-64	25 461	25 739	25 986	26 159	26 031	26 142	26 211	26 325	26 299	26 266	26 338
3. Total employment (000)	14 750	14 517	14 195	13 766	13 606	13 773	14 075	14 530	15 174	15 747	15 814
4. Population in employment aged 15-64	14 664	14 155	13 866	13 470	13 324	13 504	13 834	14 338	14 997	15 557	15 630
5. Employment rate (% population aged 15-64)	57.6	55.0	53.4	51.5	51.2	51.7	52.8	54.5	57.0	59.2	59.3
6. Employment rate (% population aged 20-64)	63.9	61.0	59.4	57.4	57.1	57.3	58.3	60.1	62.7	65.0	64.9
7. Employment rate (% population aged 15-24)	25.9	24.5	24.0	21.7	21.2	21.7	22.5	24.0	25.8	27.3	26.8
8. Employment rate (% population aged 25-54)	73.8	70.9	69.2	67.4	67.5	68.2	69.6	71.8	74.9	77.5	77.6
9. Employment rate (% population aged 55-64)	31.9	28.4	27.4	26.1	26.9	26.2	27.2	28.1	29.7	31.6	32.3
10. FTE employment rate (% population aged 15-64)	:	:	52.9	50.7	50.3	50.2	51.5	53.3	55.9	58.3	58.4
11. Self-employed (% total employment)	27.0	27.4	28.1	28.2	27.3	26.8	25.8	24.5	23.5	23.0	22.8
12. Part-time employment (% total employment)	10.5	10.5	10.3	10.8	10.5	10.8	10.8	9.8	9.2	8.5	8.4
13. Fixed term contracts (% total employees)	4.6	5.8	11.7	15.4	19.4	22.7	25.7	27.3	28.2	27.0	26.5
14. Employment in Services (% total employment)	45.4	46.2	50.4	52.1	53.0	53.2	53.5	54.4	54.6	54.6	:
15. Employment in Industry (% total employment)	27.7	26.3	30.5	28.6	28.6	28.8	29.2	29.9	30.6	31.4	:
16. Employment in Agriculture (% total employment)	26.9	27.5	19.1	19.3	18.4	18.0	17.4	15.8	14.7	14.0	:
17. Activity rate (% population aged 15-64)	65.9	65.8	65.5	64.6	63.9	64.0	64.4	63.4	63.2	63.8	64.7
18. Activity rate (% of population aged 15-24)	36.1	37.8	39.7	37.8	36.4	35.9	35.7	34.2	33.0	33.1	33.8
19. Activity rate (% of population aged 25-54)	82.5	82.4	81.9	81.5	81.4	81.9	82.5	81.7	81.7	82.5	83.4
20. Activity rate (% of population aged 55-64)	34.5	31.3	30.2	29.1	30.1	29.6	30.5	30.7	31.8	33.3	34.5
21. Total unemployment (000)	2 300	2 793	3 170	3 431	3 323	3 230	3 045	2 344	1 619	1 211	1 411
22. Unemployment rate (% labour force 15+)	13.4	16.1	18.3	20.0	19.7	19.0	17.8	13.9	9.6	7.1	8.2
23. Youth unemployment rate (% labour force 15-24)	30.1	35.1	39.5	42.5	41.9	39.6	36.9	29.8	21.7	17.3	20.6
24. Long term unemployment rate (% labour force)	5.8	7.4	9.2	10.9	11.0	10.3	10.3	7.8	4.9	2.4	2.5
25. Youth unemployment ratio (% population aged 15-24)	10.2	13.3	15.7	16.1	15.2	14.2	13.2	10.2	7.1	5.7	7.0

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	18 339	18 371	18 408	18 381	18 169	18 139	18 104	18 052	17 924	17 831	17 850
2. Population aged 15-64	12 561	12 713	12 832	12 919	12 873	12 940	12 986	13 027	12 976	12 931	12 971
3. Total employment (000)	8 117	7 999	7 790	7 521	7 426	7 553	7 787	8 045	8 366	8 689	8 692
4. Population in employment aged 15-64	8 064	7 783	7 592	7 352	7 271	7 400	7 643	7 927	8 258	8 573	8 578
5. Employment rate (% population aged 15-64)	64.2	61.2	59.2	56.9	56.5	57.2	58.9	60.9	63.6	66.3	66.1
6. Employment rate (% population aged 20-64)	71.4	68.0	66.0	63.6	63.1	63.5	65.1	67.3	70.2	73.0	72.6
7. Employment rate (% population aged 15-24)	29.5	27.3	26.6	24.2	23.9	24.8	25.4	26.9	29.2	31.0	30.4
8. Employment rate (% population aged 25-54)	80.5	77.6	75.4	73.0	73.0	73.9	76.1	78.3	81.1	84.0	83.7
9. Employment rate (% population aged 55-64)	40.6	36.7	35.6	34.5	35.2	34.1	35.9	38.4	41.4	44.1	44.3
10. FTE employment rate (% population aged 15-64)	:	:	59.2	56.7	56.1	56.4	60.5	63.5	66.4	66.2	66.2
11. Self-employed (% total employment)	29.0	29.5	30.0	30.5	29.8	29.0	28.0	26.7	25.6	25.0	25.0
12. Part-time employment (% total employment)	8.0	8.2	8.3	8.5	8.2	8.2	8.0	7.1	6.6	5.9	5.8
13. Fixed term contracts (% total employees)	5.2	6.5	12.4	16.4	20.8	23.7	26.5	28.5	28.4	26.3	26.3
14. Employment in Services (% total employment)	36.7	37.4	40.4	42.1	42.9	42.9	43.1	43.7	43.7	43.8	:
15. Employment in Industry (% total employment)	35.9	34.5	40.4	38.1	38.0	38.4	38.9	39.9	41.1	42.2	:
16. Employment in Agriculture (% total employment)	27.5	28.1	19.2	19.8	19.1	18.7	18.0	16.4	15.2	14.0	:
17. Activity rate (% population aged 15-64)	72.5	71.7	71.5	70.6	70.0	70.1	70.8	70.1	70.0	70.9	71.8
18. Activity rate (% of population aged 15-24)	40.1	40.9	43.1	41.6	40.5	39.7	39.5	37.5	36.5	36.5	38.1
19. Activity rate (% of population aged 25-54)	88.9	88.3	87.7	87.2	87.1	87.8	88.7	88.2	87.9	88.8	89.4
20. Activity rate (% of population aged 55-64)	44.3	40.4	39.6	38.7	39.7	39.1	40.9	42.6	44.7	46.8	47.5
21. Total unemployment (000)	1 097	1 343	1 583	1 779	1 738	1 681	1 553	1 202	831	599	734
22. Unemployment rate (% labour force 15+)	11.8	14.4	16.9	19.2	19.0	18.2	16.6	13.0	9.0	6.4	7.8
23. Youth unemployment rate (% labour force 15-24)	28.5	33.4	38.3	41.9	40.9	37.7	35.7	28.3	20.0	15.2	20.2
24. Long term unemployment rate (% labour force)	4.5	6.0	7.8	9.8	10.4	9.6	9.3	7.1	4.6	2.0	2.2
25. Youth unemployment ratio (% population aged 15-24)	10.6	13.6	16.5	17.4	16.6	15.0	14.1	10.6	7.3	5.6	7.7

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	19 642	19 659	19 699	19 688	19 487	19 461	19 422	19 394	19 353	19 327	19 346
2. Population aged 15-64	12 899	13 027	13 153	13 241	13 158	13 203	13 225	13 298	13 322	13 335	13 368
3. Total employment (000)	6 633	6 518	6 404	6 246	6 180	6 220	6 288	6 485	6 808	7 059	7 122
4. Population in employment aged 15-64	6 603	6 372	6 274	6 119	6 054	6 103	6 191	6 411	6 738	6 984	7 052
5. Employment rate (% population aged 15-64)	51.2	48.9	47.7	46.2	46.0	46.2	46.8	48.2	50.6	52.4	52.8
6. Employment rate (% population aged 20-64)	56.7	54.2	53.0	51.4	51.2	51.2	51.7	53.1	55.5	57.3	57.6
7. Employment rate (% population aged 15-24)	22.4	21.8	21.5	19.3	18.3	18.6	19.6	21.0	22.4	23.7	23.2
8. Employment rate (% population aged 25-54)	67.0	64.3	63.0	61.9	62.1	62.6	63.1	65.3	68.8	71.0	71.6
9. Employment rate (% population aged 55-64)	24.5	21.4	20.4	18.9	19.8	19.4	19.7	19.0	19.4	20.7	21.9
10. FTE employment rate (% population aged 15-64)	:	:	46.7	44.9	44.7	44.2	44.8	46.4	48.7	50.6	50.9
11. Self-employed (% total employment)	24.5	24.8	25.8	25.5	24.3	24.1	23.2	21.9	21.0	20.5	20.1
12. Part-time employment (% total employment)	13.6	13.4	12.7	13.4	13.2	14.0	14.3	13.0	12.5	11.7	11.6
13. Fixed term contracts (% total employees)	3.9	4.9	10.9	14.4	17.8	21.5	24.7	26.0	27.9	27.7	26.6
14. Employment in Services (% total employment)	56.3	56.9	62.5	64.1	65.2	65.7	66.3	67.6	68.0	68.1	:
15. Employment in Industry (% total employment)	17.5	16.4	18.4	17.2	17.2	17.1	17.1	17.4	17.8	17.9	:
16. Employment in Agriculture (% total employment)	26.2	26.7	19.0	18.8	17.6	17.2	16.6	15.0	14.2	14.0	:
17. Activity rate (% population aged 15-64)	59.4	59.9	59.7	58.7	58.0	57.9	58.1	56.8	56.5	57.0	57.8
18. Activity rate (% of population aged 15-24)	32.2	34.8	36.4	34.1	32.2	32.0	31.8	30.7	29.3	29.6	29.4
19. Activity rate (% of population aged 25-54)	76.1	76.5	76.2	75.8	75.8	76.0	76.4	75.4	75.6	76.3	77.5
20. Activity rate (% of population aged 55-64)	26.2	23.6	22.2	20.9	22.0	21.4	21.5	20.3	20.6	21.6	23.2
21. Total unemployment (000)	1 204	1 450	1 587	1 652	1 585	1 550	1 493	1 142	788	612	678
22. Unemployment rate (% labour force 15+)	15.3	18.2	19.9	21.0	20.5	20.0	19.2	14.9	10.4	8.0	8.7
23. Youth unemployment rate (% labour force 15-24)	32.0	37.1	41.0	43.3	43.1	41.9	38.3	31.6	23.8	19.9	21.2
24. Long term unemployment rate (% labour force)	7.4	9.1	10.8	12.3	11.8	11.1	11.4	8.6	5.4	2.8	2.9
25. Youth unemployment ratio (% population aged 15-24)	9.8	13.0	14.9	14.8	13.9	13.4	12.2	9.7	7.0	5.9	6.2

Indicator 1: 1999-2005 estimate; Indicator 3, 10, 14, 15, 16: 2005 break in series.

Labour market indicators: Portugal

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	10 156	10 211	10 284	10 357	10 435	10 504	10 563	10 586	10 604	10 623	10 638
2. Population aged 15-64	6 871	6 909	6 950	6 992	7 038	7 084	7 115	7 116	7 135	7 145	7 143
3. Total employment (000)	4 927	5 030	5 121	5 151	5 121	5 117	5 100	5 126	5 124	5 146	5 015
4. Population in employment aged 15-64	4 633	4 724	4 796	4 812	4 792	4 806	4 800	4 800	4 830	4 872	4 736
5. Employment rate (% population aged 15-64)	67.4	68.4	69.0	68.8	68.1	67.8	67.5	67.9	67.8	68.2	66.3
6. Employment rate (% population aged 20-64)	72.6	73.5	73.9	73.6	72.9	72.6	72.3	72.7	72.6	73.1	71.2
7. Employment rate (% population aged 15-24)	42.6	42.2	42.9	42.2	38.8	37.1	36.1	35.8	34.9	34.7	31.3
8. Employment rate (% population aged 25-54)	80.6	81.8	82.3	81.5	81.0	81.1	80.8	81.3	81.0	81.6	79.7
9. Employment rate (% population aged 55-64)	50.1	50.7	50.2	51.4	51.6	50.3	50.5	50.1	50.9	50.8	49.7
10. FTE employment rate (% population aged 15-64)	:	66.7	67.5	67.6	66.5	66.4	65.8	66.1	65.8	66.3	64.5
11. Self-employed (% total employment)	17.0	16.9	17.2	16.4	16.6	15.9	15.4	14.9	14.5	14.0	13.2
12. Part-time employment (% total employment)	11.0	10.9	11.1	11.2	11.7	11.3	11.2	11.3	12.1	11.9	11.6
13. Fixed term contracts (% total employees)	18.7	19.9	20.3	21.5	20.6	19.8	19.5	20.6	22.4	22.8	22.0
14. Employment in Services (% total employment)	55.5	55.4	56.2	56.7	57.4	58.5	59.5	60.2	60.6	61.5	62.2
15. Employment in Industry (% total employment)	32.3	32.4	31.4	31.3	30.5	29.8	29.0	28.4	28.2	27.4	26.9
16. Employment in Agriculture (% total employment)	12.1	12.2	12.4	11.9	12.1	11.6	11.5	11.4	11.2	11.0	10.9
17. Activity rate (% population aged 15-64)	70.8	71.4	72.1	72.7	72.9	73.0	73.4	73.9	74.1	74.2	73.7
18. Activity rate (% of population aged 15-24)	46.8	46.3	47.3	47.7	45.4	43.8	43.0	42.7	41.9	41.6	39.2
19. Activity rate (% of population aged 25-54)	84.1	84.8	85.3	85.3	85.9	86.3	87.1	87.7	87.8	88.0	87.9
20. Activity rate (% of population aged 55-64)	51.8	52.4	51.9	53.4	54.0	53.2	53.8	53.5	54.4	54.4	53.9
21. Total unemployment (000)	226	206	214	271	342	365	422	428	449	427	529
22. Unemployment rate (% labour force 15+)	4.5	4.0	4.1	5.1	6.4	6.7	7.7	7.8	8.1	7.7	9.6
23. Youth unemployment rate (% labour force 15-24)	8.8	8.6	9.4	11.6	14.5	15.3	16.1	16.3	16.6	16.4	20.0
24. Long term unemployment rate (% labour force)	1.8	1.7	1.5	1.8	2.2	3.0	3.7	3.9	3.8	3.7	4.3
25. Youth unemployment ratio (% population aged 15-24)	4.3	4.1	4.4	5.5	6.6	6.7	6.9	6.9	6.9	6.8	7.9

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 893	4 922	4 961	5 001	5 042	5 083	5 115	5 125	5 133	5 141	5 149
2. Population aged 15-64	3 365	3 388	3 414	3 440	3 467	3 498	3 516	3 518	3 527	3 536	3 535
3. Total employment (000)	2 718	2 770	2 815	2 824	2 789	2 781	2 753	2 772	2 765	2 769	2 667
4. Population in employment aged 15-64	2 550	2 593	2 627	2 632	2 599	2 595	2 581	2 601	2 605	2 617	2 514
5. Employment rate (% population aged 15-64)	75.8	76.5	77.0	76.5	75.0	74.2	73.4	73.9	73.8	74.0	71.1
6. Employment rate (% population aged 20-64)	81.8	82.3	82.5	81.8	80.2	79.3	78.7	79.2	79.1	79.4	76.5
7. Employment rate (% population aged 15-24)	47.4	48.1	48.7	47.8	43.1	41.5	40.5	39.8	39.1	38.5	33.2
8. Employment rate (% population aged 25-54)	89.6	89.9	90.1	89.2	87.8	87.4	86.7	87.4	87.2	87.6	84.5
9. Employment rate (% population aged 55-64)	61.4	62.1	61.6	61.9	62.1	59.1	58.1	58.2	58.6	58.5	57.5
10. FTE employment rate (% population aged 15-64)	:	76.5	77.5	77.2	75.5	74.4	73.4	73.8	73.5	74.0	70.8
11. Self-employed (% total employment)	17.6	17.7	18.0	17.3	17.5	17.0	16.2	15.6	15.4	14.8	14.5
12. Part-time employment (% total employment)	6.4	6.4	6.7	7.0	7.3	7.1	7.0	7.4	8.0	7.4	7.5
13. Fixed term contracts (% total employees)	17.2	18.3	18.4	19.9	19.0	18.7	18.7	19.5	21.8	21.7	20.9
14. Employment in Services (% total employment)	47.8	47.0	48.0	47.7	48.2	49.3	50.4	51.2	51.0	53.9	54.4
15. Employment in Industry (% total employment)	41.3	42.0	40.8	41.3	40.3	39.6	38.9	38.0	38.2	36.0	35.4
16. Employment in Agriculture (% total employment)	10.9	11.0	11.2	11.0	11.5	11.1	10.6	10.9	10.8	10.1	10.2
17. Activity rate (% population aged 15-64)	79.1	79.2	79.6	80.0	79.6	79.1	79.0	79.5	79.4	79.5	78.5
18. Activity rate (% of population aged 15-24)	51.2	51.5	52.5	53.0	49.2	47.9	46.9	46.6	45.3	44.4	40.8
19. Activity rate (% of population aged 25-54)	92.9	92.5	92.6	92.5	92.3	92.2	92.4	92.9	92.8	93.2	92.4
20. Activity rate (% of population aged 55-64)	63.9	64.4	63.6	64.3	65.2	62.8	62.4	62.7	63.0	63.0	62.7
21. Total unemployment (000)	109	89	92	121	161	173	198	195	197	194	261
22. Unemployment rate (% labour force 15+)	3.9	3.2	3.2	4.2	5.6	5.9	6.8	6.6	6.7	6.6	9.0
23. Youth unemployment rate (% labour force 15-24)	7.2	6.2	7.2	9.8	12.4	13.5	13.6	14.5	13.5	13.3	18.7
24. Long term unemployment rate (% labour force)	1.5	1.4	1.2	1.4	1.8	2.6	3.2	3.4	3.2	3.2	3.7
25. Youth unemployment ratio (% population aged 15-24)	3.8	3.4	3.8	5.2	6.1	6.5	6.4	6.8	6.1	5.9	7.6

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 263	5 289	5 323	5 357	5 393	5 421	5 448	5 461	5 471	5 481	5 489
2. Population aged 15-64	3 506	3 521	3 536	3 553	3 572	3 586	3 599	3 598	3 608	3 609	3 607
3. Total employment (000)	2 209	2 260	2 306	2 327	2 332	2 336	2 347	2 354	2 359	2 377	2 348
4. Population in employment aged 15-64	2 084	2 131	2 168	2 180	2 193	2 211	2 219	2 229	2 232	2 255	2 222
5. Employment rate (% population aged 15-64)	59.4	60.5	61.3	61.4	61.4	61.7	61.7	62.0	61.9	62.5	61.6
6. Employment rate (% population aged 20-64)	63.9	65.1	65.8	65.7	65.9	66.1	66.0	66.3	66.3	67.0	66.1
7. Employment rate (% population aged 15-24)	37.7	36.2	37.0	36.5	34.4	32.5	31.4	31.6	30.6	30.8	29.4
8. Employment rate (% population aged 25-54)	72.0	73.9	74.7	74.0	74.3	74.9	74.9	75.3	74.9	75.8	74.9
9. Employment rate (% population aged 55-64)	40.3	40.6	40.3	42.2	42.4	42.5	43.7	42.8	44.0	43.9	42.7
10. FTE employment rate (% population aged 15-64)	:	57.3	57.9	58.4	57.9	58.6	58.4	58.7	58.4	58.9	58.3
11. Self-employed (% total employment)	16.2	15.9	16.2	15.4	15.5	14.6	14.4	14.0	13.4	13.0	11.8
12. Part-time employment (% total employment)	16.7	16.4	16.4	16.4	16.9	16.3	16.2	15.8	16.9	17.2	16.4
13. Fixed term contracts (% total employees)	20.5	21.9	22.5	23.4	22.3	21.1	20.4	21.7	23.0	24.1	23.2
14. Employment in Services (% total employment)	65.1	65.5	66.1	67.4	68.2	69.4	70.1	70.7	71.7	71.2	71.9
15. Employment in Industry (% total employment)	21.3	20.9	20.1	19.5	18.9	18.3	17.3	17.2	16.6	16.5	16.3
16. Employment in Agriculture (% total employment)	13.6	13.6	13.7	13.0	12.9	12.3	12.5	12.1	11.7	12.3	11.8
17. Activity rate (% population aged 15-64)	62.9	63.9	64.8	65.6	66.5	67.0	67.9	68.4	68.8	68.9	69.0
18. Activity rate (% of population aged 15-24)	42.5	41.0	42.1	42.4	41.5	39.5	38.9	38.7	38.4	38.6	37.5
19. Activity rate (% of population aged 25-54)	75.7	77.4	78.2	78.4	79.7	80.6	81.8	82.7	82.8	82.9	83.4
20. Activity rate (% of population aged 55-64)	41.2	41.8	41.5	43.8	44.0	44.8	46.1	45.1	46.7	46.6	45.9
21. Total unemployment (000)	117	116	122	149	181	192	224	233	252	233	267
22. Unemployment rate (% labour force 15+)	5.1	5.0	5.1	6.1	7.3	7.7	8.8	9.1	9.7	9.0	10.3
23. Youth unemployment rate (% labour force 15-24)	10.8	11.6	12.1	13.9	17.0	17.6	19.1	18.4	20.3	20.2	21.6
24. Long term unemployment rate (% labour force)	2.0	2.0	2.0	2.2	2.7	3.5	4.3	4.5	4.5	4.2	4.9
25. Youth unemployment ratio (% population aged 15-24)	4.8	4.8	5.1	5.9	7.0	6.9	7.4	7.1	7.8	7.8	8.1

Labour market indicators: Romania

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	22 346	22 334	22 326	22 309	21 686	21 638	21 609	21 575	21 551	21 517	21 484
2. Population aged 15-64	15 189	15 231	15 277	15 327	14 933	14 964	15 021	15 035	15 046	15 042	15 028
3. Total employment (000)	10 855	10 772	10 657	9 574	9 569	9 410	9 267	9 331	9 365	9 343	9 175
4. Population in employment aged 15-64	9 598	9 590	9 529	8 833	8 602	8 635	8 651	8 838	8 843	8 882	8 805
5. Employment rate (% population aged 15-64)	63.2	63.0	62.4	57.6	57.6	57.7	57.6	58.8	58.8	59.0	58.6
6. Employment rate (% population aged 20-64)	69.4	69.1	68.3	63.3	63.7	63.5	63.6	64.8	64.4	64.4	63.5
7. Employment rate (% population aged 15-24)	33.5	33.1	32.6	28.7	26.4	27.9	24.9	24.0	24.4	24.8	24.5
8. Employment rate (% population aged 25-54)	78.1	77.5	76.6	72.7	73.1	72.9	73.3	74.7	74.6	74.4	73.7
9. Employment rate (% population aged 55-64)	49.6	49.5	48.2	37.3	38.1	36.9	39.4	41.7	41.4	43.1	42.6
10. FTE employment rate (% population aged 15-64)	:	:	62.9	58.4	58.5	58.3	56.7	57.7	57.8	57.9	57.4
11. Self-employed (% total employment)	45.0	45.4	45.7	35.9	38.3	31.9	33.5	31.3	31.3	30.7	28.8
12. Part-time employment (% total employment)	15.9	16.5	16.6	11.8	11.5	10.6	10.2	9.7	9.7	9.9	9.8
13. Fixed term contracts (% total employees)	3.0	2.8	3.0	1.0	2.0	2.5	2.4	1.8	1.6	1.3	1.0
14. Employment in Services (% total employment)	28.7	29.2	29.6	34.6	33.5	36.3	36.9	38.7	38.8	39.5	40.9
15. Employment in Industry (% total employment)	26.0	24.5	24.8	30.0	28.8	30.4	29.8	30.7	30.9	30.6	31.3
16. Employment in Agriculture (% total employment)	45.3	46.3	45.7	35.4	37.6	33.3	33.3	30.6	30.3	29.8	27.8
17. Activity rate (% population aged 15-64)	68.4	68.4	67.3	63.4	62.2	63.0	62.3	63.6	63.0	62.9	63.1
18. Activity rate (% of population aged 15-24)	42.1	41.4	40.0	37.4	32.9	35.8	31.2	30.6	30.5	30.4	30.9
19. Activity rate (% of population aged 25-54)	83.2	83.0	81.6	78.6	78.0	78.3	78.2	79.9	79.0	78.3	78.5
20. Activity rate (% of population aged 55-64)	50.1	50.0	48.7	37.9	38.8	37.9	40.4	42.8	42.4	44.2	43.9
21. Total unemployment (000)	790	821	750	884	692	800	705	728	641	576	681
22. Unemployment rate (% labour force 15+)	7.1	7.3	6.8	8.6	7.0	8.1	7.2	7.3	6.4	5.8	6.9
23. Youth unemployment rate (% labour force 15-24)	20.4	20.0	18.6	23.2	19.6	21.9	20.2	21.4	20.1	18.6	20.8
24. Long term unemployment rate (% labour force)	3.1	3.8	3.4	4.6	4.3	4.8	4.0	4.2	3.2	2.4	2.2
25. Youth unemployment ratio (% population aged 15-24)	8.6	8.3	7.5	8.7	6.5	7.8	6.3	6.6	6.1	5.7	6.4

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	10 866	10 864	10 863	10 855	10 549	10 527	10 521	10 506	10 504	10 484	10 465
2. Population aged 15-64	7 481	7 512	7 543	7 577	7 397	7 423	7 467	7 481	7 502	7 501	7 495
3. Total employment (000)	5 782	5 724	5 654	5 161	5 215	5 092	5 063	5 073	5 123	5 143	5 063
4. Population in employment aged 15-64	5 164	5 155	5 115	4 817	4 718	4 705	4 760	4 835	4 863	4 925	4 890
5. Employment rate (% population aged 15-64)	69.0	68.6	67.8	63.6	63.8	63.4	63.7	64.6	64.8	65.7	65.2
6. Employment rate (% population aged 20-64)	75.9	75.4	74.6	70.1	70.5	69.7	70.4	71.2	71.0	71.6	70.7
7. Employment rate (% population aged 15-24)	36.9	35.8	35.2	31.4	29.9	30.7	28.2	27.3	28.3	29.1	28.3
8. Employment rate (% population aged 25-54)	84.3	83.7	82.8	79.6	80.1	79.2	80.0	80.8	80.6	80.9	80.5
9. Employment rate (% population aged 55-64)	56.9	56.0	54.3	42.7	43.5	43.1	46.7	50.0	50.3	53.0	52.3
10. FTE employment rate (% population aged 15-64)	:	70.5	69.4	65.1	65.2	64.3	63.2	63.9	64.3	65.0	64.4
11. Self-employed (% total employment)	42.4	43.6	44.1	34.8	37.8	32.2	34.0	32.0	31.5	30.8	29.0
12. Part-time employment (% total employment)	13.8	14.6	14.9	10.9	10.9	10.2	10.0	9.5	9.2	9.1	9.1
13. Fixed term contracts (% total employees)	3.0	2.8	3.2	1.1	2.2	2.9	2.8	2.0	1.7	1.3	1.1
14. Employment in Services (% total employment)	26.0	26.7	27.6	31.6	30.5	32.5	33.0	34.9	34.5	34.8	35.8
15. Employment in Industry (% total employment)	31.2	29.0	28.9	34.6	33.0	34.7	34.4	35.2	36.4	36.7	37.8
16. Employment in Agriculture (% total employment)	42.8	44.3	43.5	33.8	36.5	32.8	32.6	29.9	29.1	28.5	26.4
17. Activity rate (% population aged 15-64)	75.2	75.0	73.6	70.4	69.3	70.0	69.4	70.7	70.1	70.6	70.9
18. Activity rate (% of population aged 15-24)	47.2	46.0	43.8	41.5	37.5	40.5	35.9	35.1	35.9	35.9	35.9
19. Activity rate (% of population aged 25-54)	90.2	90.0	88.5	86.4	85.8	85.7	85.8	87.1	85.9	85.8	86.3
20. Activity rate (% of population aged 55-64)	57.7	56.9	55.3	43.9	44.6	44.9	48.4	52.0	52.1	55.1	54.5
21. Total unemployment (000)	463	482	436	515	408	491	420	452	399	369	424
22. Unemployment rate (% labour force 15+)	7.7	8.0	7.3	9.2	7.6	9.1	7.8	8.2	7.2	6.7	7.7
23. Youth unemployment rate (% labour force 15-24)	21.8	22.2	19.7	24.3	20.3	24.2	21.6	22.3	21.1	18.8	21.2
24. Long term unemployment rate (% labour force)	3.2	4.0	3.6	4.8	4.6	5.5	4.6	4.7	3.6	2.9	2.5
25. Youth unemployment ratio (% population aged 15-24)	10.3	10.2	8.6	10.1	7.6	9.8	7.7	7.8	7.6	6.8	7.6

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	11 480	11 471	11 463	11 454	11 136	11 111	11 089	11 069	11 047	11 032	11 019
2. Population aged 15-64	7 708	7 719	7 733	7 750	7 536	7 541	7 554	7 554	7 545	7 541	7 533
3. Total employment (000)	5 073	5 047	5 003	4 413	4 354	4 319	4 205	4 257	4 242	4 200	4 112
4. Population in employment aged 15-64	4 435	4 435	4 414	4 016	3 884	3 930	3 891	4 003	3 980	3 958	3 915
5. Employment rate (% population aged 15-64)	57.5	57.5	57.1	51.8	51.5	52.1	51.5	53.0	52.8	52.5	52.0
6. Employment rate (% population aged 20-64)	63.2	63.0	62.3	56.8	57.0	57.4	56.9	58.5	57.9	57.3	56.3
7. Employment rate (% population aged 15-24)	30.2	30.5	30.0	26.1	22.9	25.1	21.6	20.6	20.2	20.2	20.6
8. Employment rate (% population aged 25-54)	72.0	71.2	70.6	65.9	66.0	66.6	66.5	68.6	68.5	67.8	66.9
9. Employment rate (% population aged 55-64)	43.3	43.8	42.9	32.6	33.3	31.4	33.1	34.5	33.6	34.4	34.1
10. FTE employment rate (% population aged 15-64)	:	:	56.5	51.9	51.8	52.4	50.2	51.6	51.3	50.8	50.4
11. Self-employed (% total employment)	47.9	47.4	47.5	37.2	39.0	31.5	33.0	30.4	31.0	30.5	28.5
12. Part-time employment (% total employment)	18.2	18.6	18.4	13.0	12.2	11.2	10.5	9.8	10.4	10.8	10.6
13. Fixed term contracts (% total employees)	3.1	2.8	2.8	0.8	1.7	2.0	1.9	1.6	1.5	1.2	1.0
14. Employment in Services (% total employment)	31.7	32.1	31.8	38.1	37.1	40.9	41.6	43.2	44.0	45.3	47.3
15. Employment in Industry (% total employment)	20.2	19.4	20.1	24.6	23.9	25.3	24.3	25.4	24.2	23.2	23.1
16. Employment in Agriculture (% total employment)	48.1	48.6	48.1	37.3	39.0	33.8	34.1	31.3	31.8	31.5	29.5
17. Activity rate (% population aged 15-64)	61.8	61.9	61.1	56.6	55.3	56.2	55.3	56.6	56.0	55.2	55.4
18. Activity rate (% of population aged 15-24)	37.1	36.8	36.3	33.4	28.2	31.0	26.5	25.9	24.9	24.7	25.8
19. Activity rate (% of population aged 25-54)	76.3	76.0	74.8	70.8	70.1	70.9	70.7	72.6	72.0	70.7	70.6
20. Activity rate (% of population aged 55-64)	43.5	43.9	43.1	32.8	33.6	31.9	33.5	34.8	33.9	34.7	34.7
21. Total unemployment (000)	327	340	314	369	284	309	284	276	242	206	257
22. Unemployment rate (% labour force 15+)	6.3	6.5	6.1	7.9	6.4	6.9	6.4	6.1	5.4	4.7	5.8
23. Youth unemployment rate (% labour force 15-24)	18.6	17.2	17.4	21.8	18.7	18.9	18.4	20.2	18.7	18.3	20.1
24. Long term unemployment rate (% labour force)	3.0	3.5	3.1	4.4	4.1	3.8	3.4	3.6	2.7	1.8	1.8
25. Youth unemployment ratio (% population aged 15-24)	6.9	6.3	6.3	7.3	5.3	5.8	4.9	5.2	4.7	4.5	5.2

LFS indicators: 2002 break in series.

Labour market indicators: Slovenia

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 983	1 989	1 992	1 995	1 996	1 997	1 999	2 006	2 015	2 033	2 037
2. Population aged 15-64	1 384	1 397	1 399	1 401	1 405	1 405	1 402	1 407	1 412	1 422	1 414
3. Total employment (000)	893	905	909	923	919	922	920	934	962	989	967
4. Population in employment aged 15-64	861	877	893	889	879	917	925	937	957	975	955
5. Employment rate (% population aged 15-64)	62.2	62.8	63.8	63.4	62.6	65.3	66.0	66.6	67.8	68.6	67.5
6. Employment rate (% population aged 20-64)	68.1	68.5	69.4	69.0	68.1	70.4	71.1	71.5	72.4	73.0	71.9
7. Employment rate (% population aged 15-24)	34.0	32.8	30.5	30.6	29.1	33.8	34.1	35.0	37.6	38.4	35.3
8. Employment rate (% population aged 25-54)	81.7	82.6	83.6	83.4	82.5	83.8	83.8	84.2	85.3	86.8	84.8
9. Employment rate (% population aged 55-64)	22.0	22.7	25.5	24.5	23.5	29.0	30.7	32.6	33.5	32.8	35.6
10. FTE employment rate (% population aged 15-64)	:	61.5	62.4	62.7	60.9	63.3	63.9	64.5	65.8	66.6	65.1
11. Self-employed (% total employment)	19.0	18.4	17.9	18.1	17.7	17.7	17.4	17.3	17.2	17.0	17.3
12. Part-time employment (% total employment)	6.1	6.5	6.1	6.1	6.2	9.3	9.0	9.2	9.3	9.0	10.6
13. Fixed term contracts (% total employees)	10.5	13.7	13.0	14.3	13.7	17.8	17.4	17.3	18.5	17.4	16.4
14. Employment in Services (% total employment)	49.9	50.6	51.1	52.8	53.6	54.5	54.8	55.8	56.3	56.8	58.4
15. Employment in Industry (% total employment)	37.8	37.6	37.5	36.3	35.8	35.3	35.2	34.7	34.7	34.6	32.9
16. Employment in Agriculture (% total employment)	12.3	11.8	11.3	10.9	10.5	10.2	10.0	9.5	9.0	8.6	8.6
17. Activity rate (% population aged 15-64)	67.3	67.5	68.1	67.8	67.1	69.8	70.7	70.9	71.3	71.8	71.8
18. Activity rate (% of population aged 15-24)	41.3	39.2	37.1	36.6	35.2	40.3	40.5	40.6	41.8	42.9	40.9
19. Activity rate (% of population aged 25-54)	87.1	87.4	88.0	88.1	87.5	88.6	88.8	89.0	89.3	90.1	89.6
20. Activity rate (% of population aged 55-64)	23.1	24.0	26.5	25.2	24.3	29.9	32.1	33.4	34.6	34.2	36.9
21. Total unemployment (000)	70	65	60	61	64	63	66	61	50	46	61
22. Unemployment rate (% labour force 15+)	7.3	6.7	6.2	6.3	6.7	6.3	6.5	6.0	4.9	4.4	5.9
23. Youth unemployment rate (% labour force 15-24)	17.6	16.3	17.8	16.5	17.3	16.1	15.9	13.9	10.1	10.4	13.6
24. Long term unemployment rate (% labour force)	3.3	4.1	3.7	3.5	3.5	3.2	3.1	2.9	2.2	1.9	1.8
25. Youth unemployment ratio (% population aged 15-24)	7.3	6.4	6.6	6.1	6.1	6.5	6.5	5.6	4.2	4.5	5.6

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	967	972	974	976	976	977	979	984	991	1 007	1 008
2. Population aged 15-64	701	707	709	710	712	712	713	716	721	732	727
3. Total employment (000)	483	489	495	502	502	502	500	509	527	539	523
4. Population in employment aged 15-64	466	475	487	484	479	499	502	510	525	532	516
5. Employment rate (% population aged 15-64)	66.5	67.2	68.6	68.2	67.4	70.0	70.4	71.1	72.7	72.7	71.0
6. Employment rate (% population aged 20-64)	73.0	73.2	74.6	74.1	73.2	75.4	75.8	76.3	77.5	77.4	75.6
7. Employment rate (% population aged 15-24)	35.8	35.7	34.1	34.4	33.7	38.8	38.1	39.2	43.2	43.0	39.1
8. Employment rate (% population aged 25-54)	85.2	85.7	87.0	86.7	85.7	86.4	86.4	87.1	88.1	88.6	86.4
9. Employment rate (% population aged 55-64)	31.1	32.3	35.9	35.4	33.2	40.9	43.1	44.5	45.3	44.7	46.4
10. FTE employment rate (% population aged 15-64)	:	66.1	67.9	67.7	66.1	68.3	69.0	69.9	71.6	71.6	69.5
11. Self-employed (% total employment)	21.7	21.1	20.7	21.1	20.9	20.1	19.8	19.9	19.5	19.9	20.4
12. Part-time employment (% total employment)	5.2	5.3	5.0	4.9	5.2	7.9	7.2	7.2	7.7	7.1	8.4
13. Fixed term contracts (% total employees)	9.9	12.7	12.1	12.6	12.6	16.7	15.7	15.5	16.5	15.3	15.1
14. Employment in Services (% total employment)	40.9	42.4	42.6	44.2	44.3	44.9	45.1	45.7	46.2	46.7	49.2
15. Employment in Industry (% total employment)	47.0	46.1	46.0	44.8	44.9	44.9	45.0	44.6	45.1	44.8	42.3
16. Employment in Agriculture (% total employment)	12.1	11.5	11.4	11.0	10.8	10.3	9.9	9.7	8.7	8.6	8.5
17. Activity rate (% population aged 15-64)	71.8	71.9	72.8	72.5	72.0	74.5	75.1	74.9	75.8	75.8	75.6
18. Activity rate (% of population aged 15-24)	43.2	41.7	40.5	40.4	39.9	45.1	44.5	44.4	47.6	47.7	45.4
19. Activity rate (% of population aged 25-54)	90.6	90.6	91.1	91.2	90.6	91.0	91.1	91.0	91.3	91.6	91.3
20. Activity rate (% of population aged 55-64)	33.0	34.6	37.5	36.7	34.5	42.5	45.4	45.8	46.7	46.4	48.2
21. Total unemployment (000)	37	34	30	31	33	32	33	27	22	23	33
22. Unemployment rate (% labour force 15+)	7.2	6.5	5.7	5.9	6.3	5.9	6.1	4.9	4.0	4.0	5.9
23. Youth unemployment rate (% labour force 15-24)	16.8	14.6	15.7	15.0	15.6	13.9	14.5	11.6	9.4	9.9	13.8
24. Long term unemployment rate (% labour force)	3.5	4.1	3.5	3.5	3.4	3.1	2.9	2.5	1.8	1.6	1.7
25. Youth unemployment ratio (% population aged 15-24)	7.4	6.1	6.4	6.1	6.2	6.2	6.5	5.2	4.5	4.7	6.2

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	1 016	1 017	1 018	1 019	1 020	1 020	1 021	1 022	1 024	1 026	1 030
2. Population aged 15-64	683	689	690	691	693	693	690	691	691	691	687
3. Total employment (000)	410	416	414	421	417	420	421	425	435	450	444
4. Population in employment aged 15-64	394	403	406	405	400	419	423	427	432	443	439
5. Employment rate (% population aged 15-64)	57.7	58.4	58.8	58.6	57.6	60.5	61.3	61.8	62.6	64.2	63.8
6. Employment rate (% population aged 20-64)	63.1	63.6	64.1	63.8	62.8	65.4	66.2	66.5	67.1	68.5	67.9
7. Employment rate (% population aged 15-24)	32.2	29.7	26.8	26.5	24.3	28.6	29.8	30.3	31.4	33.2	31.0
8. Employment rate (% population aged 25-54)	78.0	79.3	80.1	80.0	79.3	81.2	81.1	81.2	82.4	84.8	83.2
9. Employment rate (% population aged 55-64)	13.4	13.8	15.8	14.2	14.6	17.8	18.5	21.0	22.2	21.1	24.8
10. FTE employment rate (% population aged 15-64)	:	56.8	56.9	57.6	55.5	58.1	58.6	59.0	59.9	61.3	60.5
11. Self-employed (% total employment)	15.8	15.2	14.7	14.5	13.9	14.8	14.5	14.2	14.3	13.6	13.8
12. Part-time employment (% total employment)	7.2	7.8	7.4	7.5	7.5	11.0	11.1	11.6	11.3	11.4	13.2
13. Fixed term contracts (% total employees)	11.2	14.8	14.0	16.1	14.9	19.1	19.3	19.3	20.8	19.7	17.8
14. Employment in Services (% total employment)	60.6	60.5	61.5	63.1	65.0	66.0	66.6	68.2	68.9	69.6	70.1
15. Employment in Industry (% total employment)	26.8	27.4	27.3	26.1	24.8	23.8	23.3	22.4	21.6	21.7	21.0
16. Employment in Agriculture (% total employment)	12.6	12.1	11.3	10.7	10.2	10.2	10.1	9.4	9.5	8.7	8.9
17. Activity rate (% population aged 15-64)	62.6	62.9	63.2	63.0	62.1	65.0	66.1	66.7	66.6	67.5	67.9
18. Activity rate (% of population aged 15-24)	39.4	36.4	33.7	32.5	30.3	35.4	36.3	36.4	35.4	37.4	35.8
19. Activity rate (% of population aged 25-54)	83.4	84.2	84.7	84.9	84.3	86.1	86.4	87.0	87.3	88.5	87.9
20. Activity rate (% of population aged 55-64)	13.7	14.1	16.2	14.4	14.9	18.1	18.9	21.4	23.1	22.2	25.6
21. Total unemployment (000)	33	31	30	30	31	31	33	34	28	23	28
22. Unemployment rate (% labour force 15+)	7.6	7.0	6.8	6.8	7.1	6.9	7.1	7.2	5.9	4.8	5.8
23. Youth unemployment rate (% labour force 15-24)	18.6	18.3	20.4	18.6	19.8	19.2	17.8	16.8	11.2	11.3	13.4
24. Long term unemployment rate (% labour force)	3.1	4.2	4.0	3.6	3.6	3.4	3.3	3.5	2.7	2.1	1.9
25. Youth unemployment ratio (% population aged 15-24)	7.1	6.7	6.9	6.0	6.0	6.8	6.4	6.1	4.0	4.2	4.8

Labour market indicators: Slovakia

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	5 369	5 377	5 379	5 384	5 389	5 370	5 379	5 389	5 391	5 396	5 409
2. Population aged 15-64	3 657	3 693	3 723	3 728	3 733	3 792	3 824	3 862	3 873	3 892	3 917
3. Total employment (000)	2 065	2 025	2 037	2 038	2 061	2 056	2 084	2 132	2 177	2 237	2 185
4. Population in employment aged 15-64	2 125	2 096	2 115	2 118	2 155	2 160	2 207	2 295	2 351	2 423	2 357
5. Employment rate (% population aged 15-64)	58.1	56.8	56.8	56.8	57.7	57.0	57.7	59.4	60.7	62.3	60.2
6. Employment rate (% population aged 20-64)	65.0	63.5	63.5	63.6	64.8	63.7	64.5	66.0	67.2	68.8	66.4
7. Employment rate (% population aged 15-24)	31.0	29.0	27.7	27.0	27.4	26.3	25.6	25.9	27.6	26.2	22.8
8. Employment rate (% population aged 25-54)	76.1	74.7	74.8	75.0	76.0	74.7	75.3	77.2	78.0	80.1	77.8
9. Employment rate (% population aged 55-64)	22.3	21.3	22.4	22.8	24.6	26.8	30.3	33.1	35.6	39.2	39.5
10. FTE employment rate (% population aged 15-64)	:	56.4	55.7	55.8	57.0	55.7	56.9	58.5	59.8	61.3	59.1
11. Self-employed (% total employment)	8.0	8.3	8.8	9.0	10.1	12.3	13.0	12.9	13.2	13.8	15.4
12. Part-time employment (% total employment)	2.1	2.1	2.3	1.9	2.4	2.7	2.5	2.8	2.6	2.7	3.6
13. Fixed term contracts (% total employees)	3.9	4.8	4.9	4.9	4.9	5.5	5.0	5.1	5.1	4.7	4.4
14. Employment in Services (% total employment)	58.0	59.4	60.2	60.9	60.9	60.9	61.6	62.1	62.5	62.0	64.6
15. Employment in Industry (% total employment)	35.7	34.8	34.4	34.1	34.6	34.6	34.0	33.9	33.9	34.4	32.3
16. Employment in Agriculture (% total employment)	6.3	5.7	5.4	5.0	4.5	4.5	4.4	4.0	3.7	3.6	3.2
17. Activity rate (% population aged 15-64)	69.5	69.9	70.4	69.9	70.0	69.7	68.9	68.6	68.3	68.8	68.4
18. Activity rate (% of population aged 15-24)	46.8	46.0	45.5	43.4	41.1	39.3	36.6	35.3	34.6	32.4	31.4
19. Activity rate (% of population aged 25-54)	87.6	88.4	88.9	88.6	89.5	88.9	88.0	87.6	86.9	87.8	87.2
20. Activity rate (% of population aged 55-64)	24.6	24.3	25.5	26.9	28.5	31.7	35.0	36.7	38.8	41.9	42.8
21. Total unemployment (000)	417	485	507	487	460	483	430	355	296	256	324
22. Unemployment rate (% labour force 15+)	16.4	18.8	19.3	18.7	17.6	18.2	16.3	13.4	11.1	9.5	12.0
23. Youth unemployment rate (% labour force 15-24)	33.8	36.9	39.2	37.7	33.4	33.1	30.1	26.6	20.3	19.0	27.3
24. Long term unemployment rate (% labour force)	7.8	10.3	11.3	12.2	11.4	11.8	11.7	10.2	8.3	6.6	6.5
25. Youth unemployment ratio (% population aged 15-24)	15.8	17.0	17.8	16.3	13.7	13.0	11.0	9.4	7.0	6.2	8.6

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 600	2 604	2 602	2 608	2 613	2 601	2 609	2 616	2 617	2 621	2 628
2. Population aged 15-64	1 802	1 822	1 836	1 842	1 847	1 878	1 899	1 922	1 928	1 940	1 954
3. Total employment (000)	1 127	1 096	1 098	1 107	1 119	1 130	1 159	1 196	1 221	1 254	1 224
4. Population in employment aged 15-64	1 159	1 133	1 139	1 149	1 170	1 186	1 227	1 288	1 319	1 357	1 320
5. Employment rate (% population aged 15-64)	64.3	62.2	62.0	62.4	63.3	63.2	64.6	67.0	68.4	70.0	67.6
6. Employment rate (% population aged 20-64)	72.4	70.0	69.7	70.2	71.4	70.9	72.5	74.6	76.0	77.4	74.6
7. Employment rate (% population aged 15-24)	32.9	29.8	28.9	28.7	29.3	28.0	28.1	29.2	30.9	30.8	26.8
8. Employment rate (% population aged 25-54)	81.7	79.6	79.0	79.5	80.5	80.0	81.4	84.1	85.0	86.4	84.2
9. Employment rate (% population aged 55-64)	36.8	35.4	37.7	39.1	41.0	43.8	47.8	49.8	52.5	56.7	54.9
10. FTE employment rate (% population aged 15-64)	:	62.7	61.5	61.7	63.2	62.5	64.3	66.6	68.2	69.5	66.7
11. Self-employed (% total employment)	10.8	11.3	11.9	12.5	13.5	16.4	17.6	17.2	17.6	18.4	19.9
12. Part-time employment (% total employment)	1.2	1.1	1.2	1.1	1.3	1.4	1.3	1.3	1.1	1.4	2.7
13. Fixed term contracts (% total employees)	4.1	5.1	5.1	5.2	5.3	6.0	5.1	5.0	4.9	4.6	4.6
14. Employment in Services (% total employment)	46.2	47.8	48.5	49.6	49.4	49.4	50.2	50.7	50.1	49.9	52.8
15. Employment in Industry (% total employment)	45.5	44.4	44.1	43.8	44.5	44.2	43.8	43.8	44.7	45.2	42.9
16. Employment in Agriculture (% total employment)	8.3	7.8	7.4	6.6	6.1	6.3	6.1	5.5	5.1	4.9	4.3
17. Activity rate (% population aged 15-64)	76.9	76.8	77.4	76.7	76.7	76.5	76.4	75.9	76.4	76.4	76.3
18. Activity rate (% of population aged 15-24)	50.9	49.4	49.8	47.5	44.9	42.9	40.7	39.7	38.9	37.8	37.1
19. Activity rate (% of population aged 25-54)	93.7	93.9	94.0	93.4	94.1	93.8	93.8	94.0	93.1	93.4	93.6
20. Activity rate (% of population aged 55-64)	41.1	41.0	43.1	46.3	48.1	51.9	55.1	55.2	57.0	59.9	58.7
21. Total unemployment (000)	227	265	282	264	247	251	225	181	145	124	170
22. Unemployment rate (% labour force 15+)	16.3	18.9	19.8	18.6	17.4	17.4	15.5	12.3	9.9	8.4	11.4
23. Youth unemployment rate (% labour force 15-24)	35.3	39.7	42.1	39.5	34.8	34.7	31.0	26.4	20.4	18.5	27.8
24. Long term unemployment rate (% labour force)	7.4	10.3	11.3	11.9	11.3	11.3	11.2	9.4	7.5	5.8	5.8
25. Youth unemployment ratio (% population aged 15-24)	18.0	19.6	21.0	18.7	15.6	14.9	12.6	10.5	7.9	7.0	10.3

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 770	2 774	2 776	2 776	2 777	2 768	2 770	2 773	2 774	2 775	2 781
2. Population aged 15-64	1 855	1 871	1 886	1 886	1 886	1 914	1 926	1 940	1 946	1 952	1 963
3. Total employment (000)	938	929	939	931	941	926	925	936	956	984	960
4. Population in employment aged 15-64	966	963	976	969	985	974	980	1 008	1 032	1 066	1 036
5. Employment rate (% population aged 15-64)	52.1	51.5	51.8	51.4	52.2	50.9	50.9	51.9	53.0	54.6	52.8
6. Employment rate (% population aged 20-64)	57.8	57.2	57.5	57.2	58.4	56.7	56.7	57.5	58.7	60.3	58.2
7. Employment rate (% population aged 15-24)	29.0	28.2	26.5	25.3	25.4	24.6	23.1	22.5	24.1	21.5	18.7
8. Employment rate (% population aged 25-54)	70.6	69.8	70.7	70.6	71.5	69.3	69.2	70.2	71.0	73.7	71.2
9. Employment rate (% population aged 55-64)	10.3	9.8	9.8	9.5	11.2	12.6	15.6	18.9	21.2	24.2	26.1
10. FTE employment rate (% population aged 15-64)	:	50.2	50.1	50.0	50.9	49.1	49.6	50.6	51.6	53.2	51.4
11. Self-employed (% total employment)	4.6	4.8	5.1	4.9	6.1	7.2	7.1	7.5	7.5	7.8	9.6
12. Part-time employment (% total employment)	3.2	3.1	3.5	2.7	3.8	4.2	4.1	4.7	4.5	4.2	4.7
13. Fixed term contracts (% total employees)	3.6	4.5	4.7	4.5	4.6	5.1	4.9	5.2	5.3	4.8	4.1
14. Employment in Services (% total employment)	71.6	72.7	73.3	73.6	73.9	74.2	75.4	76.1	77.3	77.0	79.3
15. Employment in Industry (% total employment)	24.5	23.9	23.5	23.2	23.5	23.3	22.3	21.8	20.8	21.1	19.0
16. Employment in Agriculture (% total employment)	3.9	3.4	3.2	3.2	2.7	2.4	2.4	2.1	1.9	1.9	1.8
17. Activity rate (% population aged 15-64)	62.3	63.2	63.7	63.2	63.5	63.0	61.5	60.9	60.8	61.3	60.6
18. Activity rate (% of population aged 15-24)	42.7	42.6	41.3	39.2	37.2	35.7	32.4	30.9	30.2	26.7	25.4
19. Activity rate (% of population aged 25-54)	81.5	82.9	83.9	83.9	84.8	84.1	82.1	81.2	80.7	82.1	80.7
20. Activity rate (% of population aged 55-64)	11.1	10.7	11.0	11.1	12.4	14.8	18.1	20.9	23.3	26.4	29.0
21. Total unemployment (000)	190	220	225	223	213	232	205	175	150	131	153
22. Unemployment rate (% labour force 15+)	16.4	18.6	18.7	18.7	17.8	19.2	17.2	14.7	12.7	10.9	12.8
23. Youth unemployment rate (% labour force 15-24)	32.1	33.8	35.7	35.5	31.7	31.0	28.8	27.0	20.2	19.8	26.5
24. Long term unemployment rate (% labour force)	8.3	10.2	11.3	12.5	11.7	12.4	12.3	11.2	9.3	7.6	7.4
25. Youth unemployment ratio (% population aged 15-24)	13.7	14.4	14.7	13.9	11.8	11.1	9.3	8.3	6.1	5.3	6.7

Labour market indicators: Finland

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 353	4 920	5 166	5 180	5 193	5 205	5 225	5 242	5 266	5 289	5 317
2. Population aged 15-64	3 441	3 452	3 450	3 458	3 464	3 467	3 476	3 484	3 497	3 514	3 527
3. Total employment (000)	2 247	2 293	2 324	2 346	2 348	2 357	2 389	2 433	2 486	2 525	2 454
4. Population in employment aged 15-64	2 282	2 319	2 350	2 354	2 345	2 345	2 378	2 416	2 459	2 497	2 423
5. Employment rate (% population aged 15-64)	66.4	67.2	68.1	68.1	67.7	67.6	68.4	69.3	70.3	71.1	68.7
6. Employment rate (% population aged 20-64)	70.8	71.6	72.6	72.6	72.2	72.2	73.0	73.9	74.8	75.8	73.5
7. Employment rate (% population aged 15-24)	40.0	41.1	41.8	40.7	39.7	39.4	40.5	42.1	44.6	44.7	39.6
8. Employment rate (% population aged 25-54)	80.4	80.9	81.5	81.6	81.1	81.0	81.7	82.4	83.4	84.3	82.4
9. Employment rate (% population aged 55-64)	39.0	41.6	45.7	47.8	49.6	50.9	52.7	54.5	55.0	56.5	55.5
10. FTE employment rate (% population aged 15-64)	:	64.9	65.7	65.8	65.2	64.8	64.6	65.5	66.4	67.2	64.7
11. Self-employed (% total employment)	12.4	12.2	11.8	11.5	11.4	11.4	11.3	11.5	11.5	11.5	12.1
12. Part-time employment (% total employment)	12.1	12.3	12.2	12.8	13.0	13.5	13.7	14.0	14.1	13.3	14.0
13. Fixed term contracts (% total employees)	16.8	16.3	16.4	16.0	16.3	16.1	16.5	16.4	15.9	15.0	14.6
14. Employment in Services (% total employment)	65.9	66.2	66.8	67.7	68.3	68.8	68.9	69.0	69.0	69.5	70.9
15. Employment in Industry (% total employment)	27.9	27.9	27.5	26.9	26.4	25.9	25.9	25.9	26.0	25.7	24.1
16. Employment in Agriculture (% total employment)	6.2	6.0	5.7	5.4	5.3	5.2	5.2	5.0	4.9	4.8	4.9
17. Activity rate (% population aged 15-64)	73.9	74.5	75.0	74.9	74.5	74.2	74.7	75.2	75.6	76.0	75.0
18. Activity rate (% of population aged 15-24)	50.9	52.3	52.1	51.5	50.7	49.7	50.7	51.8	53.4	53.5	50.4
19. Activity rate (% of population aged 25-54)	87.7	87.9	88.0	88.0	87.5	87.4	87.7	87.8	88.0	88.6	88.2
20. Activity rate (% of population aged 55-64)	43.2	45.9	50.3	52.1	53.7	54.9	56.6	58.5	58.8	59.7	59.1
21. Total unemployment (000)	261	253	238	237	235	229	220	204	183	172	221
22. Unemployment rate (% labour force 15+)	10.2	9.8	9.1	9.1	9.0	8.8	8.4	7.7	6.9	6.4	8.2
23. Youth unemployment rate (% labour force 15-24)	21.4	21.4	19.8	21.0	21.8	20.7	20.1	18.7	16.5	16.5	21.5
24. Long term unemployment rate (% labour force)	3.0	2.8	2.5	2.3	2.3	2.1	2.2	1.9	1.6	1.2	1.4
25. Youth unemployment ratio (% population aged 15-24)	10.9	11.2	10.3	10.8	11.0	10.3	10.2	9.7	8.8	8.8	10.9

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 111	2 386	2 512	2 521	2 529	2 536	2 547	2 555	2 569	2 581	2 598
2. Population aged 15-64	1 729	1 734	1 733	1 738	1 741	1 742	1 747	1 750	1 758	1 766	1 774
3. Total employment (000)	1 180	1 206	1 218	1 215	1 218	1 225	1 237	1 261	1 287	1 312	1 253
4. Population in employment aged 15-64	1 196	1 216	1 227	1 216	1 213	1 214	1 228	1 249	1 268	1 291	1 233
5. Employment rate (% population aged 15-64)	69.2	70.1	70.8	70.0	69.7	69.7	70.3	71.4	72.1	73.1	69.5
6. Employment rate (% population aged 20-64)	73.9	74.9	75.7	74.8	74.4	74.5	75.1	76.3	77.2	78.4	74.7
7. Employment rate (% population aged 15-24)	41.7	42.2	42.9	41.1	40.1	39.4	40.4	42.6	44.5	44.3	37.7
8. Employment rate (% population aged 25-54)	83.5	84.3	84.7	83.8	83.3	83.8	84.4	85.2	86.0	87.3	84.3
9. Employment rate (% population aged 55-64)	40.1	42.9	46.6	48.5	51.0	51.4	52.8	54.8	55.1	57.1	54.6
10. FTE employment rate (% population aged 15-64)	:	69.3	69.8	69.3	68.4	68.3	67.9	69.1	69.9	70.8	67.1
11. Self-employed (% total employment)	15.9	15.8	15.1	14.8	14.7	14.8	14.8	15.2	15.1	15.1	16.0
12. Part-time employment (% total employment)	7.7	8.0	7.9	8.3	8.7	9.0	9.2	9.3	9.3	8.9	9.2
13. Fixed term contracts (% total employees)	13.8	12.9	12.9	12.5	12.6	12.6	12.9	12.6	12.4	11.2	10.6
14. Employment in Services (% total employment)	51.7	51.7	52.6	53.3	53.7	54.5	54.4	54.2	53.7	55.5	57.2
15. Employment in Industry (% total employment)	40.2	40.4	39.9	39.7	39.3	38.4	38.6	38.9	39.4	38.2	36.3
16. Employment in Agriculture (% total employment)	8.1	7.9	7.4	7.0	7.0	7.1	7.0	6.9	6.9	6.4	6.5
17. Activity rate (% population aged 15-64)	76.7	77.2	77.6	77.0	76.8	76.4	76.6	77.1	77.2	77.9	76.4
18. Activity rate (% of population aged 15-24)	52.8	53.6	53.3	52.1	51.4	50.5	50.9	52.6	53.3	53.4	49.7
19. Activity rate (% of population aged 25-54)	90.6	90.8	90.9	90.5	90.1	90.1	90.3	90.3	90.4	91.2	90.6
20. Activity rate (% of population aged 55-64)	44.7	47.3	51.3	53.0	55.3	55.6	56.9	58.9	59.1	60.6	58.7
21. Total unemployment (000)	130	122	117	123	124	118	111	101	90	85	122
22. Unemployment rate (% labour force 15+)	9.8	9.1	8.6	9.1	9.2	8.7	8.2	7.4	6.5	6.1	8.9
23. Youth unemployment rate (% labour force 15-24)	20.8	21.1	19.6	21.2	21.9	22.0	20.6	19.0	16.4	17.1	24.1
24. Long term unemployment rate (% labour force)	3.2	2.8	2.7	2.5	2.6	2.3	2.4	2.1	1.7	1.3	1.6
25. Youth unemployment ratio (% population aged 15-24)	11.0	11.3	10.4	11.0	11.3	11.1	10.5	10.0	8.8	9.2	12.0

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	2 241	2 534	2 654	2 659	2 664	2 669	2 678	2 687	2 697	2 708	2 719
2. Population aged 15-64	1 712	1 718	1 717	1 720	1 723	1 725	1 728	1 734	1 739	1 748	1 753
3. Total employment (000)	1 067	1 088	1 107	1 131	1 129	1 132	1 152	1 173	1 200	1 214	1 201
4. Population in employment aged 15-64	1 086	1 103	1 123	1 138	1 132	1 131	1 150	1 167	1 191	1 206	1 191
5. Employment rate (% population aged 15-64)	63.4	64.2	65.4	66.2	65.7	65.6	66.5	67.3	68.5	69.0	67.9
6. Employment rate (% population aged 20-64)	67.6	68.2	69.5	70.4	70.0	69.7	70.8	71.5	72.5	73.1	72.4
7. Employment rate (% population aged 15-24)	38.3	40.0	40.7	40.3	39.2	39.4	40.6	41.6	44.7	45.1	41.5
8. Employment rate (% population aged 25-54)	77.1	77.3	78.1	79.2	78.9	78.2	79.0	79.6	80.6	81.2	80.5
9. Employment rate (% population aged 55-64)	38.0	40.4	45.0	47.2	48.3	50.4	52.7	54.3	55.0	55.8	56.3
10. FTE employment rate (% population aged 15-64)	:	60.5	61.8	62.4	62.0	61.3	61.3	61.9	62.9	63.8	62.5
11. Self-employed (% total employment)	8.5	8.2	8.0	7.9	7.8	7.7	7.6	7.6	7.5	7.7	8.0
12. Part-time employment (% total employment)	16.9	17.0	16.8	17.5	17.7	18.4	18.6	19.2	19.3	18.2	19.0
13. Fixed term contracts (% total employees)	19.8	19.8	19.9	19.5	20.0	19.5	20.0	20.0	19.4	18.7	18.3
14. Employment in Services (% total employment)	81.6	82.2	82.4	83.1	84.0	84.4	84.6	85.1	85.6	85.9	86.4
15. Employment in Industry (% total employment)	14.2	13.9	13.8	13.2	12.5	12.4	12.3	11.9	11.5	11.1	10.5
16. Employment in Agriculture (% total employment)	4.1	3.8	3.7	3.6	3.5	3.2	3.1	3.0	2.8	3.0	3.2
17. Activity rate (% population aged 15-64)	71.1	71.9	72.4	72.8	72.2	72.0	72.8	73.3	73.8	73.9	73.5
18. Activity rate (% of population aged 15-24)	49.1	51.0	50.9	50.9	50.0	48.9	50.4	51.0	53.6	53.5	51.2
19. Activity rate (% of population aged 25-54)	84.8	84.9	85.0	85.5	84.8	84.5	85.1	85.3	85.6	85.9	85.7
20. Activity rate (% of population aged 55-64)	41.8	44.5	49.4	51.2	52.2	54.3	56.4	58.2	58.4	58.8	59.5
21. Total unemployment (000)	131	131	121	114	111	111	109	104	93	87	99
22. Unemployment rate (% labour force 15+)	10.7	10.6	9.7	9.1	8.9	8.9	8.6	8.1	7.2	6.7	7.6
23. Youth unemployment rate (% labour force 15-24)	22.1	21.6	20.0	20.9	21.6	19.4	19.5	18.4	16.6	15.8	19.0
24. Long term unemployment rate (% labour force)	2.8	2.7	2.3	2.0	2.0	2.0	2.0	1.8	1.4	1.1	1.1
25. Youth unemployment ratio (% population aged 15-24)	10.9	11.1	10.2	10.6	10.8	9.5	9.8	9.4	8.9	8.4	9.7

Labour market indicators: Sweden

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	8 834	8 857	8 889	8 930	8 969	9 006	9 039	9 084	9 147	9 203	9 297
2. Population aged 15-64	5 686	5 708	5 739	5 776	5 821	5 855	5 896	5 951	6 002	6 046	6 080
3. Total employment (000)	4 198	4 301	4 391	4 393	4 368	4 337	4 349	4 423	4 533	4 574	4 482
4. Population in employment aged 15-64	4 078	4 168	4 249	4 252	4 242	4 220	4 272	4 352	4 453	4 494	4 391
5. Employment rate (% population aged 15-64)	71.7	73.0	74.0	73.6	72.9	72.1	72.5	73.1	74.2	74.3	72.2
6. Employment rate (% population aged 20-64)	76.5	77.7	78.7	78.5	77.9	77.4	78.1	78.8	80.1	80.4	78.3
7. Employment rate (% population aged 15-24)	39.9	42.2	44.2	42.8	41.2	39.2	38.7	40.3	42.2	42.2	38.3
8. Employment rate (% population aged 25-54)	82.7	83.9	84.6	84.1	83.5	82.9	83.9	84.7	86.1	86.5	84.5
9. Employment rate (% population aged 55-64)	63.9	64.9	66.7	68.0	68.6	69.1	69.4	69.6	70.0	70.1	70.0
10. FTE employment rate (% population aged 15-64)	.	65.1	68.4	68.1	67.6	66.2	65.9	66.6	67.6	67.8	65.7
11. Self-employed (% total employment)	6.7	6.5	6.1	5.9	5.5	5.7	5.7	5.7	5.7	5.3	5.4
12. Part-time employment (% total employment)	19.7	19.5	21.1	21.5	22.9	23.6	24.7	25.1	25.0	26.6	27.0
13. Fixed term contracts (% total employees)	16.5	15.8	15.3	15.2	15.1	15.5	16.0	17.3	17.5	16.1	15.3
14. Employment in Services (% total employment)	72.3	72.7	72.9	73.4	74.0	74.6	74.8	75.1	74.9	75.0	76.1
15. Employment in Industry (% total employment)	24.7	24.3	24.4	24.0	23.6	23.0	22.9	22.8	23.0	23.0	21.8
16. Employment in Agriculture (% total employment)	3.0	3.0	2.7	2.6	2.5	2.4	2.3	2.2	2.1	2.1	2.1
17. Activity rate (% population aged 15-64)	76.8	77.3	77.9	77.6	77.3	77.2	78.7	78.8	79.1	79.3	78.9
18. Activity rate (% of population aged 15-24)	46.8	48.1	50.0	49.1	47.7	47.2	50.2	51.3	52.2	52.8	51.0
19. Activity rate (% of population aged 25-54)	87.6	87.9	88.0	87.7	87.7	87.7	89.5	89.4	90.0	90.4	90.0
20. Activity rate (% of population aged 55-64)	67.6	68.6	70.0	71.2	71.9	72.7	72.6	72.8	72.8	72.8	73.9
21. Total unemployment (000)	300	253	267	278	311	355	363	336	296	303	408
22. Unemployment rate (% labour force 15+)	6.7	5.6	5.8	6.0	6.6	7.4	7.6	7.0	6.1	6.2	8.3
23. Youth unemployment rate (% labour force 15-24)	12.3	10.5	14.9	16.3	17.3	20.4	22.5	21.5	19.1	20.0	25.0
24. Long term unemployment rate (% labour force)	1.9	1.4	1.2	1.2	1.2	1.4	.	1.1	0.8	0.8	1.1
25. Youth unemployment ratio (% population aged 15-24)	6.9	5.9	5.9	6.3	6.5	8.0	11.5	11.0	10.1	10.7	12.8

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 353	4 371	4 393	4 421	4 443	4 463	4 479	4 504	4 540	4 567	4 628
2. Population aged 15-64	2 887	2 899	2 916	2 935	2 957	2 974	2 993	3 020	3 048	3 071	3 088
3. Total employment (000)	2 204	2 256	2 293	2 286	2 272	2 259	2 282	2 327	2 386	2 412	2 350
4. Population in employment aged 15-64	2 137	2 179	2 208	2 200	2 195	2 189	2 228	2 280	2 333	2 357	2 291
5. Employment rate (% population aged 15-64)	74.0	75.1	75.7	74.9	74.2	73.6	74.4	75.5	76.5	76.7	74.2
6. Employment rate (% population aged 20-64)	78.9	80.1	80.9	80.3	79.8	79.4	80.7	81.7	83.1	83.5	80.9
7. Employment rate (% population aged 15-24)	43.0	44.2	43.7	41.8	40.4	38.6	37.7	40.2	42.0	42.2	37.7
8. Employment rate (% population aged 25-54)	84.4	85.8	86.6	85.9	85.3	85.0	86.6	87.8	89.1	89.4	86.9
9. Employment rate (% population aged 55-64)	67.3	67.8	69.4	70.4	70.8	71.2	72.0	72.3	72.9	73.4	73.2
10. FTE employment rate (% population aged 15-64)	.	70.0	73.6	72.9	72.3	70.9	71.3	72.3	73.4	73.5	70.9
11. Self-employed (% total employment)	9.4	9.2	8.6	8.4	7.9	8.2	8.0	8.1	8.0	7.4	7.5
12. Part-time employment (% total employment)	8.0	8.2	10.8	11.1	11.2	12.0	11.5	11.8	11.8	13.3	14.2
13. Fixed term contracts (% total employees)	14.2	13.8	12.9	12.8	12.8	13.5	14.2	15.4	15.0	13.4	13.0
14. Employment in Services (% total employment)	58.6	59.2	59.5	59.9	60.4	61.2	61.8	62.1	61.9	63.5	65.0
15. Employment in Industry (% total employment)	36.9	36.2	36.4	36.1	35.8	35.1	34.8	34.6	34.9	33.5	32.1
16. Employment in Agriculture (% total employment)	4.5	4.5	4.1	3.9	3.8	3.7	3.4	3.3	3.2	3.0	3.0
17. Activity rate (% population aged 15-64)	79.4	79.8	79.9	79.4	79.2	79.1	80.9	81.2	81.4	81.7	81.4
18. Activity rate (% of population aged 15-24)	49.9	50.2	50.0	48.5	47.3	47.1	49.1	50.8	51.8	52.6	51.1
19. Activity rate (% of population aged 25-54)	89.7	90.2	90.4	89.8	89.9	90.0	92.4	92.5	92.9	93.1	92.8
20. Activity rate (% of population aged 55-64)	71.5	72.1	73.1	74.2	74.9	75.6	76.2	76.0	76.2	76.5	77.8
21. Total unemployment (000)	155	139	147	155	173	193	192	172	149	151	222
22. Unemployment rate (% labour force 15+)	6.6	5.9	6.0	6.3	6.9	7.6	7.7	6.9	5.8	5.9	8.6
23. Youth unemployment rate (% labour force 15-24)	12.2	11.0	15.9	17.2	18.2	21.3	22.6	21.0	18.6	19.6	26.3
24. Long term unemployment rate (% labour force)	2.2	1.7	1.4	1.4	1.4	1.6	.	1.2	0.9	0.8	1.2
25. Youth unemployment ratio (% population aged 15-24)	7.0	6.0	6.3	6.7	6.9	8.4	11.4	10.7	9.7	10.4	13.4

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	4 480	4 486	4 496	4 510	4 527	4 543	4 559	4 580	4 607	4 637	4 668
2. Population aged 15-64	2 797	2 809	2 823	2 841	2 864	2 881	2 903	2 931	2 954	2 975	2 992
3. Total employment (000)	1 994	2 045	2 098	2 107	2 096	2 078	2 067	2 096	2 147	2 162	2 132
4. Population in employment aged 15-64	1 942	1 990	2 041	2 053	2 047	2 031	2 044	2 072	2 121	2 137	2 101
5. Employment rate (% population aged 15-64)	69.4	70.9	72.3	72.2	71.5	70.5	70.4	70.7	71.8	71.8	70.2
6. Employment rate (% population aged 20-64)	74.1	75.3	76.4	76.6	76.0	75.3	75.5	75.8	77.1	77.2	75.7
7. Employment rate (% population aged 15-24)	36.9	40.1	44.7	43.8	42.1	39.7	39.8	40.4	42.3	42.1	38.9
8. Employment rate (% population aged 25-54)	80.9	81.9	82.5	82.4	81.7	80.9	81.1	81.5	83.0	83.5	81.9
9. Employment rate (% population aged 55-64)	60.7	62.1	64.0	65.6	66.3	67.0	66.7	66.9	67.0	66.7	66.7
10. FTE employment rate (% population aged 15-64)	.	60.2	63.3	63.4	63.0	61.6	60.6	61.1	62.0	62.1	60.7
11. Self-employed (% total employment)	3.6	3.5	3.3	3.1	2.9	3.0	3.1	3.1	3.1	3.0	3.2
12. Part-time employment (% total employment)	33.3	32.3	33.0	33.1	35.5	36.3	39.6	40.2	40.0	41.4	41.2
13. Fixed term contracts (% total employees)	18.7	17.8	17.6	17.6	17.4	17.5	17.7	19.1	19.9	18.7	17.6
14. Employment in Services (% total employment)	87.0	87.2	87.4	87.9	88.5	88.9	89.1	89.2	89.2	89.3	89.9
15. Employment in Industry (% total employment)	11.7	11.5	11.4	10.9	10.4	10.1	9.9	9.8	9.9	9.8	9.1
16. Employment in Agriculture (% total employment)	1.3	1.3	1.2	1.2	1.1	1.0	1.0	1.0	0.9	0.9	1.0
17. Activity rate (% population aged 15-64)	74.2	74.8	75.7	75.8	75.4	75.2	76.3	76.3	76.8	76.9	76.4
18. Activity rate (% of population aged 15-24)	44.0	46.1	50.1	49.7	48.3	47.3	51.3	51.9	52.7	53.1	51.0
19. Activity rate (% of population aged 25-54)	85.4	85.5	85.5	85.5	85.4	85.3	86.5	86.3	87.1	87.6	87.1
20. Activity rate (% of population aged 55-64)	63.8	65.2	66.9	68.2	68.9	69.7	69.0	69.6	69.4	69.0	69.9
21. Total unemployment (000)	145	114	120	123	138	163	171	164	148	151	185
22. Unemployment rate (% labour force 15+)	6.8	5.3	5.6	5.6	6.2	7.1	7.6	7.2	6.4	6.5	8.0
23. Youth unemployment rate (% labour force 15-24)	12.4	9.9	14.0	15.4	16.4	19.5	22.4	21.9	19.6	20.5	23.6
24. Long term unemployment rate (% labour force)	1.4	1.0	1.0	0.9	0.9	1.2	.	1.0	0.8	0.7	1.0
25. Youth unemployment ratio (% population aged 15-24)	7.1	6.0	5.4	5.9	6.2	7.6	11.5	11.4	10.4	11.0	12.1

LFS indicators: 2005 break in series.

Labour market indicators: United Kingdom

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	58 373	57 881	58 106	58 299	58 542	58 815	59 156	59 518	59 862	60 305	60 734
2. Population aged 15-64	38 226	37 793	38 052	38 289	38 534	38 821	39 153	39 540	39 845	40 094	40 318
3. Total employment (000)	29 216	29 604	29 916	30 092	30 399	30 696	31 082	31 298	31 515	31 531	30 942
4. Population in employment aged 15-64	27 139	26 911	27 186	27 332	27 553	27 835	28 090	28 307	28 478	28 671	28 184
5. Employment rate (% population aged 15-64)	71.0	71.2	71.4	71.4	71.5	71.7	71.7	71.6	71.5	71.5	69.9
6. Employment rate (% population aged 20-64)	73.8	74.0	74.4	74.5	74.7	75.0	75.2	75.2	75.2	75.2	73.9
7. Employment rate (% population aged 15-24)	56.6	56.6	56.6	56.2	55.4	55.6	54.4	53.8	52.9	52.4	48.4
8. Employment rate (% population aged 25-54)	79.9	80.2	80.4	80.4	80.6	80.9	81.2	81.2	81.3	81.4	80.2
9. Employment rate (% population aged 55-64)	49.6	50.7	52.2	53.4	55.4	56.2	56.8	57.3	57.4	58.0	57.5
10. FTE employment rate (% population aged 15-64)	.	61.4	61.8	61.7	61.6	61.8	62.4	62.2	62.2	62.2	60.6
11. Self-employed (% total employment)	12.5	12.1	12.1	12.2	12.9	12.9	12.8	13.1	13.2	13.2	13.7
12. Part-time employment (% total employment)	24.6	25.1	25.0	25.3	25.6	25.7	25.2	25.3	25.2	25.3	26.1
13. Fixed term contracts (% total employees)	7.0	7.0	6.8	6.4	6.1	6.0	5.8	5.8	5.9	5.4	5.7
14. Employment in Services (% total employment)	76.3	77.1	77.8	78.6	79.3	79.8	80.3	80.6	80.7	80.7	81.6
15. Employment in Industry (% total employment)	22.0	21.3	20.7	20.0	19.3	18.7	18.2	17.9	17.8	17.7	16.8
16. Employment in Agriculture (% total employment)	1.7	1.6	1.5	1.4	1.4	1.4	1.5	1.5	1.4	1.5	1.6
17. Activity rate (% population aged 15-64)	75.7	75.5	75.3	75.3	75.3	75.3	75.4	75.7	75.5	75.8	75.7
18. Activity rate (% of population aged 15-24)	65.3	64.8	64.2	63.8	63.2	63.2	62.3	62.5	61.7	61.7	59.7
19. Activity rate (% of population aged 25-54)	84.0	83.9	83.6	83.8	83.8	83.8	84.1	84.5	84.5	84.9	85.1
20. Activity rate (% of population aged 55-64)	52.1	52.9	54.1	55.3	57.2	57.8	58.4	59.1	59.3	59.9	60.3
21. Total unemployment (000)	1 696	1 554	1 451	1 503	1 465	1 399	1 444	1 642	1 623	1 753	2 363
22. Unemployment rate (% labour force 15+)	5.9	5.4	5.0	5.1	5.0	4.7	4.8	5.4	5.3	5.6	7.6
23. Youth unemployment rate (% labour force 15-24)	12.7	12.2	11.7	12.0	12.2	12.1	12.8	14.0	14.3	15.0	19.1
24. Long term unemployment rate (% labour force)	1.7	1.4	1.3	1.1	1.1	1.0	1.0	1.2	1.3	1.4	1.9
25. Youth unemployment ratio (% population aged 15-24)	8.7	8.2	7.6	7.7	7.8	7.6	8.0	8.7	8.8	9.2	11.4

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	28 800	28 234	28 375	28 499	28 645	28 801	28 995	29 199	29 381	29 624	29 862
2. Population aged 15-64	19 264	18 723	18 851	18 996	19 127	19 278	19 448	19 644	19 789	19 918	20 047
3. Total employment (000)	16 147	16 064	16 225	16 282	16 468	16 606	16 778	16 885	17 043	17 006	16 527
4. Population in employment aged 15-64	14 965	14 568	14 707	14 751	14 878	15 012	15 116	15 219	15 341	15 395	15 005
5. Employment rate (% population aged 15-64)	77.7	77.8	78.0	77.7	77.8	77.9	77.7	77.5	77.5	77.3	74.8
6. Employment rate (% population aged 20-64)	81.2	81.4	81.6	81.6	81.9	82.1	82.0	82.0	82.2	81.8	79.6
7. Employment rate (% population aged 15-24)	58.7	58.7	58.9	57.7	57.0	57.0	56.0	54.9	54.4	53.8	48.5
8. Employment rate (% population aged 25-54)	87.0	87.4	87.4	87.4	87.5	87.7	87.8	87.9	88.2	87.7	85.7
9. Employment rate (% population aged 55-64)	59.7	60.1	61.7	62.6	64.8	65.7	65.9	66.0	66.3	67.3	66.2
10. FTE employment rate (% population aged 15-64)	.	74.2	74.5	73.7	73.6	73.7	73.8	73.5	73.6	73.1	70.6
11. Self-employed (% total employment)	16.4	15.9	16.1	16.3	17.1	17.3	17.1	17.4	17.5	17.6	18.1
12. Part-time employment (% total employment)	8.8	8.9	9.0	9.6	10.1	10.3	10.4	10.6	10.8	11.3	11.8
13. Fixed term contracts (% total employees)	6.3	6.1	6.0	5.7	5.4	5.5	5.3	5.2	5.3	4.9	5.3
14. Employment in Services (% total employment)	66.0	66.7	67.5	68.3	69.2	69.9	70.5	71.0	71.2	72.5	73.1
15. Employment in Industry (% total employment)	31.6	31.1	30.3	29.7	28.7	28.0	27.4	26.9	26.8	25.6	24.7
16. Employment in Agriculture (% total employment)	2.4	2.3	2.2	2.1	2.1	2.1	2.1	2.1	2.0	1.9	2.2
17. Activity rate (% population aged 15-64)	83.4	82.9	82.6	82.4	82.4	82.1	82.0	82.3	82.2	82.4	82.0
18. Activity rate (% of population aged 15-24)	69.0	68.0	67.9	66.9	66.2	65.7	65.3	65.1	64.5	64.8	62.0
19. Activity rate (% of population aged 25-54)	91.9	91.8	91.3	91.3	91.3	91.0	91.1	91.6	91.6	91.6	91.7
20. Activity rate (% of population aged 55-64)	63.2	63.4	64.6	65.3	67.4	68.1	68.3	68.4	69.0	69.9	70.3
21. Total unemployment (000)	1 022	925	874	901	886	821	847	950	927	1 032	1 444
22. Unemployment rate (% labour force 15+)	6.5	5.9	5.5	5.7	5.5	5.1	5.2	5.8	5.6	6.1	8.6
23. Youth unemployment rate (% labour force 15-24)	14.2	13.2	13.2	13.7	13.8	13.3	14.4	15.7	15.8	17.0	21.8
24. Long term unemployment rate (% labour force)	2.2	1.9	1.7	1.4	1.4	1.2	1.3	1.5	1.6	1.7	2.3
25. Youth unemployment ratio (% population aged 15-24)	10.2	9.3	9.0	9.1	9.2	8.7	9.3	10.2	10.2	11.0	13.5

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	29 573	29 647	29 731	29 800	29 897	30 014	30 161	30 318	30 480	30 681	30 872
2. Population aged 15-64	18 963	19 070	19 201	19 293	19 407	19 543	19 705	19 896	20 056	20 176	20 270
3. Total employment (000)	13 069	13 540	13 691	13 810	13 931	14 090	14 304	14 413	14 472	14 525	14 415
4. Population in employment aged 15-64	12 174	12 343	12 479	12 581	12 675	12 974	13 088	13 137	13 137	13 276	13 179
5. Employment rate (% population aged 15-64)	64.2	64.7	65.0	65.2	65.3	65.6	65.8	65.8	65.5	65.8	65.0
6. Employment rate (% population aged 20-64)	66.3	66.8	67.3	67.5	67.7	68.0	68.5	68.6	68.4	68.8	68.2
7. Employment rate (% population aged 15-24)	54.4	54.6	54.3	54.6	53.7	54.1	52.7	52.6	51.4	51.0	48.2
8. Employment rate (% population aged 25-54)	72.7	73.2	73.5	73.6	73.8	74.2	74.8	74.6	74.6	75.2	74.7
9. Employment rate (% population aged 55-64)	39.9	41.7	43.0	44.5	46.3	47.0	48.0	49.0	48.9	49.0	49.2
10. FTE employment rate (% population aged 15-64)	.	49.7	50.2	50.7	50.7	50.8	51.8	51.8	51.7	52.2	51.3
11. Self-employed (% total employment)	7.6	7.7	7.3	7.4	7.9	7.6	7.7	8.1	8.2	8.1	8.6
12. Part-time employment (% total employment)	44.0	44.4	43.9	43.8	43.9	43.8	42.6	42.5	42.2	41.8	42.5
13. Fixed term contracts (% total employees)	7.8	7.9	7.6	7.2	6.9	6.6	6.3	6.5	6.4	6.0	6.1
14. Employment in Services (% total employment)	88.8	89.2	89.8	90.6	91.0	91.4	91.6	91.7	91.8	91.1	92.2
15. Employment in Industry (% total employment)	10.3	9.9	9.4	8.7	8.3	7.9	7.6	7.5	7.4	7.9	7.0
16. Employment in Agriculture (% total employment)	0.9	0.8	0.8	0.7	0.7	0.7	0.8	0.7	0.8	1.1	0.8
17. Activity rate (% population aged 15-64)	67.9	68.2	68.0	68.3	68.3	68.5	68.8	69.2	69.0	69.4	69.5
18. Activity rate (% of population aged 15-24)	61.5	61.7	60.4	60.7	60.0	60.5	59.2	59.7	58.7	58.4	57.4
19. Activity rate (% of population aged 25-54)	76.0	76.2	76.1	76.4	76.4	76.7	77.3	77.6	77.6	78.2	78.7
20. Activity rate (% of population aged 55-64)	41.2	42.9	44.0	45.6	47.2	47.9	48.9	50.1	50.0	50.2	50.6
21. Total unemployment (000)	674	629	577	602	578	577	597	692	696	721	919
22. Unemployment rate (% labour force 15+)	5.2	4.8	4.4	4.5	4.3	4.2	4.3	4.9	5.0	5.1	6.4
23. Youth unemployment rate (% labour force 15-24)	11.1	11.0	10.1	10.2	10.5	10.7	11.1	12.0	12.5	12.7	16.0
24. Long term unemployment rate (% labour force)	1.0	0.9	0.8	0.7	0.7	0.6	0.7	0.8	0.9	0.9	1.4
25. Youth unemployment ratio (% population aged 15-24)	7.1	7.1	6.2	6.2	6.3	6.4	6.5	7.2	7.4	7.4	9.2

Labour market indicators: Iceland

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	197	199	202	210	217	223	223
2. Population aged 15-64	:	:	:	:	179	181	184	192	199	204	204
3. Total employment (000)	153	156	159	157	157	156	161	170	177	179	168
4. Population in employment aged 15-64	:	:	:	:	149	149	154	162	170	171	160
5. Employment rate (% population aged 15-64)	:	:	:	:	83.3	82.3	83.8	84.6	85.1	83.6	78.3
6. Employment rate (% population aged 20-64)	:	:	:	:	85.1	84.4	85.5	86.3	86.7	85.3	80.6
7. Employment rate (% population aged 15-24)	:	:	:	:	67.4	66.0	70.5	72.1	74.3	71.7	61.5
8. Employment rate (% population aged 25-54)	:	:	:	:	88.2	87.4	87.7	88.4	88.5	87.3	83.0
9. Employment rate (% population aged 55-64)	:	:	:	:	83.0	81.8	84.3	84.3	84.7	82.9	80.2
10. FTE employment rate (% population aged 15-64)	:	76.8	77.2	75.3	78.3	77.3	76.0	76.9	77.3	76.2	70.4
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	22.1	22.2	22.2	17.1	21.7	20.5	23.6
13. Fixed term contracts (% total employees)	:	:	:	:	7.9	6.7	6.9	11.5	12.3	9.5	9.7
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	86.2	84.9	86.0	87.1	87.1	86.2	84.6
18. Activity rate (% of population aged 15-24)	:	:	:	:	73.5	71.9	76.1	78.6	79.9	78.1	73.1
19. Activity rate (% of population aged 25-54)	:	:	:	:	90.4	89.0	89.1	90.0	89.7	89.1	88.4
20. Activity rate (% of population aged 55-64)	:	:	:	:	84.8	84.1	85.5	85.6	85.4	84.3	83.3
21. Total unemployment (000)	:	:	:	:	6.6	6.6	4.2	4.9	4.0	5.4	12.9
22. Unemployment rate (% labour force 15+)	:	:	:	:	4.0	4.0	2.5	2.8	2.3	2.9	7.2
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	12.5	12.1	7.4	8.3	7.0	8.2	15.9
24. Long term unemployment rate (% labour force)	:	:	:	:	0.2	0.3	0.3	0.2	0.2	0.1	0.4
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	6.2	5.9	5.6	6.5	5.6	6.4	11.6

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	99	100	102	108	112	115	114
2. Population aged 15-64	:	:	:	:	91	91	93	99	104	106	105
3. Total employment (000)	:	:	:	:	83	83	86	92	97	97	88
4. Population in employment aged 15-64	:	:	:	:	78	78	81	87	92	93	84
5. Employment rate (% population aged 15-64)	:	:	:	:	86.3	85.8	86.9	88.1	89.1	87.3	80.0
6. Employment rate (% population aged 20-64)	:	:	:	:	88.6	88.8	89.6	90.6	91.5	89.9	83.2
7. Employment rate (% population aged 15-24)	:	:	:	:	68.3	65.1	67.8	70.2	74.0	70.1	56.9
8. Employment rate (% population aged 25-54)	:	:	:	:	91.9	91.9	92.3	93.3	93.6	92.3	86.1
9. Employment rate (% population aged 55-64)	:	:	:	:	87.0	86.9	88.9	88.7	89.3	88.4	84.3
10. FTE employment rate (% population aged 15-64)	:	87.2	88.2	84.6	86.3	85.3	84.9	85.4	86.2	84.1	76.1
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	9.4	9.2	8.7	7.0	9.3	9.5	12.2
13. Fixed term contracts (% total employees)	:	:	:	:	7.4	5.5	6.0	10.4	11.0	9.1	8.9
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	89.6	88.5	89.3	90.5	91.2	90.3	87.7
18. Activity rate (% of population aged 15-24)	:	:	:	:	75.5	71.8	74.3	77.1	80.2	77.0	70.9
19. Activity rate (% of population aged 25-54)	:	:	:	:	94.1	93.5	93.8	94.8	94.6	94.3	92.8
20. Activity rate (% of population aged 55-64)	:	:	:	:	89.6	89.5	89.7	89.7	90.1	90.6	88.6
21. Total unemployment (000)	:	:	:	:	3.5	4.5	2.3	2.5	2.2	3.2	8.2
22. Unemployment rate (% labour force 15+)	:	:	:	:	4.0	5.1	2.6	2.6	2.2	3.2	8.6
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	12.7	16.2	8.6	8.9	7.7	8.9	19.8
24. Long term unemployment rate (% labour force)	:	:	:	:	0.3	0.2	0.3	0.2	0.2	0.1	0.5
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	7.1	6.7	6.4	6.9	6.2	6.9	14.0

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	98	99	100	102	105	108	109
2. Population aged 15-64	:	:	:	:	89	90	90	92	95	98	99
3. Total employment (000)	:	:	:	:	74	74	76	78	80	81	80
4. Population in employment aged 15-64	:	:	:	:	71	71	73	75	77	78	76
5. Employment rate (% population aged 15-64)	:	:	:	:	80.1	78.8	80.5	80.8	80.8	79.6	76.5
6. Employment rate (% population aged 20-64)	:	:	:	:	81.5	79.9	81.2	81.8	81.4	80.4	77.8
7. Employment rate (% population aged 15-24)	:	:	:	:	66.4	67.1	73.3	74.2	74.6	73.5	66.4
8. Employment rate (% population aged 25-54)	:	:	:	:	84.6	82.8	82.9	83.1	82.9	82.0	79.8
9. Employment rate (% population aged 55-64)	:	:	:	:	78.9	76.7	79.6	79.8	79.8	77.2	76.0
10. FTE employment rate (% population aged 15-64)	:	68.5	67.9	67.7	71.4	70.3	68.2	69.1	69.1	68.7	65.2
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	36.2	36.8	37.5	30.1	36.7	33.7	36.4
13. Fixed term contracts (% total employees)	:	:	:	:	8.3	7.9	7.8	12.7	13.6	9.9	10.5
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	82.7	81.2	82.6	83.4	82.7	81.7	81.3
18. Activity rate (% of population aged 15-24)	:	:	:	:	71.5	72.1	78.1	80.3	79.5	79.4	75.5
19. Activity rate (% of population aged 25-54)	:	:	:	:	86.7	84.5	84.3	84.8	84.2	83.4	83.9
20. Activity rate (% of population aged 55-64)	:	:	:	:	79.9	78.6	81.3	81.2	80.5	77.6	77.7
21. Total unemployment (000)	:	:	:	:	3.1	2.1	1.9	2.4	1.8	2.1	4.7
22. Unemployment rate (% labour force 15+)	:	:	:	:	4.0	2.8	2.5	3.1	2.3	2.6	5.7
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	12.2	:	:	7.7	:	7.5	12.0
24. Long term unemployment rate (% labour force)	:	:	:	:	0.2	0.4	0.3	0.3	0.3	0.1	0.4
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	5.1	5.0	4.7	6.1	5.0	5.9	9.0

Indicator 1: Population aged 16-74.

Labour market indicators: Croatia

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	4 206	4 218	4 215	4 217	4 218	4 219	4 225	4 225
2. Population aged 15-64	:	:	:	2 773	2 778	2 751	2 746	2 744	2 743	2 742	2 736
3. Total employment (000)	1 490	1 549	1 465	1 526	1 535	1 561	1 573	1 564	1 618	1 635	1 594
4. Population in employment aged 15-64	:	:	:	1 482	1 482	1 505	1 512	1 526	1 568	1 584	1 549
5. Employment rate (% population aged 15-64)	:	:	:	53.4	53.4	54.7	55.0	55.6	57.1	57.8	56.6
6. Employment rate (% population aged 20-64)	:	:	:	58.4	58.3	59.6	60.0	60.6	62.3	62.9	61.7
7. Employment rate (% population aged 15-24)	:	:	:	26.2	24.9	26.5	25.8	25.5	26.5	27.1	25.7
8. Employment rate (% population aged 25-54)	:	:	:	70.2	70.1	70.9	71.8	72.2	74.1	75.0	73.6
9. Employment rate (% population aged 55-64)	:	:	:	24.8	28.4	30.1	32.6	34.3	35.8	36.7	38.4
10. FTE employment rate (% population aged 15-64)	:	:	:	51.9	52.2	53.8	53.7	54.3	55.8	56.4	55.3
11. Self-employed (% total employment)	24.8	23.8	24.3	23.5	24.2	23.4	23.8	15.3	14.9	14.7	15.0
12. Part-time employment (% total employment)	:	:	:	8.3	8.5	8.5	10.1	9.4	8.6	8.8	9.0
13. Fixed term contracts (% total employees)	:	:	:	10.9	11.3	12.2	12.4	12.9	12.6	12.1	11.6
14. Employment in Services (% total employment)	52.8	56.6	54.3	55.0	53.4	53.7	:	:	:	:	:
15. Employment in Industry (% total employment)	30.7	28.9	30.1	29.7	29.8	29.9	:	:	:	:	:
16. Employment in Agriculture (% total employment)	16.5	14.5	15.6	15.3	16.9	16.5	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	62.9	62.4	63.7	63.3	62.8	63.4	63.2	62.4
18. Activity rate (% of population aged 15-24)	:	:	:	40.6	38.7	39.6	38.1	35.9	34.9	34.7	34.3
19. Activity rate (% of population aged 25-54)	:	:	:	80.3	79.8	80.7	80.6	80.1	80.9	80.9	79.9
20. Activity rate (% of population aged 55-64)	:	:	:	26.8	30.4	32.3	35.1	36.5	38.3	38.8	40.7
21. Total unemployment (000)	:	:	:	263	252	247	227	199	171	149	169
22. Unemployment rate (% labour force 15+)	:	:	:	14.8	14.2	13.7	12.7	11.2	9.6	8.4	9.1
23. Youth unemployment rate (% labour force 15-24)	:	:	:	35.4	35.8	33.2	32.3	28.9	24.0	21.9	25.0
24. Long term unemployment rate (% labour force)	:	:	:	9.0	8.4	7.4	7.4	6.7	5.9	5.3	5.1
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	14.4	13.9	13.1	12.3	10.4	8.4	7.6	8.6

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	1 999	2 000	2 012	2 006	2 008	1 995	2 000	1 995
2. Population aged 15-64	:	:	:	1 352	1 361	1 357	1 354	1 353	1 359	1 357	1 346
3. Total employment (000)	:	:	:	:	850	865	867	856	899	905	863
4. Population in employment aged 15-64	:	:	:	818	821	838	835	839	875	882	840
5. Employment rate (% population aged 15-64)	:	:	:	60.5	60.3	61.8	61.7	62.0	64.4	65.0	62.4
6. Employment rate (% population aged 20-64)	:	:	:	66.3	66.0	67.5	67.5	67.6	70.3	70.7	68.2
7. Employment rate (% population aged 15-24)	:	:	:	29.2	28.6	30.9	30.0	29.1	31.6	33.2	31.2
8. Employment rate (% population aged 25-54)	:	:	:	77.6	77.2	77.7	77.9	78.1	80.6	80.9	78.0
9. Employment rate (% population aged 55-64)	:	:	:	34.2	38.1	40.9	43.0	44.4	48.4	49.0	50.1
10. FTE employment rate (% population aged 15-64)	:	:	:	59.5	60.1	61.6	61.0	61.1	63.6	64.2	61.8
11. Self-employed (% total employment)	:	:	:	:	25.2	24.2	24.2	16.3	15.6	15.4	15.8
12. Part-time employment (% total employment)	:	:	:	6.6	6.3	6.3	7.3	7.5	6.4	6.7	6.9
13. Fixed term contracts (% total employees)	:	:	:	11.3	11.8	12.1	12.4	13.1	12.2	11.9	11.4
14. Employment in Services (% total employment)	:	:	:	:	45.2	45.5	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	38.5	38.9	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	16.2	15.6	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	69.9	69.5	70.5	70.0	68.9	70.4	70.0	68.0
18. Activity rate (% of population aged 15-24)	:	:	:	44.8	43.4	43.8	43.0	39.9	39.9	40.7	40.5
19. Activity rate (% of population aged 25-54)	:	:	:	86.7	86.2	86.6	85.9	84.9	86.4	85.6	83.2
20. Activity rate (% of population aged 55-64)	:	:	:	37.4	41.1	44.0	47.2	47.7	52.2	52.3	53.2
21. Total unemployment (000)	:	:	:	128	125	118	113	95	81	68	82
22. Unemployment rate (% labour force 15+)	:	:	:	13.3	12.9	12.1	11.6	9.9	8.4	7.0	8.0
23. Youth unemployment rate (% labour force 15-24)	:	:	:	34.7	34.1	29.4	30.2	27.2	20.9	18.5	23.0
24. Long term unemployment rate (% labour force)	:	:	:	7.5	7.5	6.0	6.5	5.8	4.8	4.2	4.1
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	15.5	14.8	12.9	13.0	10.9	8.3	7.5	9.3

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	2 207	2 218	2 203	2 211	2 209	2 225	2 225	2 230
2. Population aged 15-64	:	:	:	1 421	1 417	1 394	1 392	1 391	1 385	1 385	1 390
3. Total employment (000)	:	:	:	:	685	696	706	708	719	730	731
4. Population in employment aged 15-64	:	:	:	664	661	667	676	687	692	703	709
5. Employment rate (% population aged 15-64)	:	:	:	46.7	46.7	47.8	48.6	49.4	50.0	50.7	51.0
6. Employment rate (% population aged 20-64)	:	:	:	50.9	50.9	51.9	52.8	53.7	54.5	55.2	55.5
7. Employment rate (% population aged 15-24)	:	:	:	23.2	21.0	21.7	21.3	21.8	21.1	20.6	19.4
8. Employment rate (% population aged 25-54)	:	:	:	63.1	63.2	64.3	65.7	66.3	67.7	69.2	69.4
9. Employment rate (% population aged 55-64)	:	:	:	16.9	20.3	21.0	23.8	25.7	24.2	25.5	28.0
10. FTE employment rate (% population aged 15-64)	:	:	:	44.6	44.5	46.2	46.7	47.7	48.2	48.9	49.1
11. Self-employed (% total employment)	:	:	:	:	23.0	22.5	23.2	14.2	13.9	13.8	14.0
12. Part-time employment (% total employment)	:	:	:	10.5	11.2	11.2	13.4	11.7	11.3	11.5	11.6
13. Fixed term contracts (% total employees)	:	:	:	10.4	10.7	12.4	12.3	12.6	13.2	12.3	11.9
14. Employment in Services (% total employment)	:	:	:	:	63.4	63.9	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	18.9	18.6	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	17.7	17.5	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	56.2	55.6	57.1	56.7	56.9	56.4	56.6	57.0
18. Activity rate (% of population aged 15-24)	:	:	:	36.3	33.9	35.1	32.9	31.6	29.5	28.3	27.2
19. Activity rate (% of population aged 25-54)	:	:	:	74.0	73.5	74.9	75.3	75.2	75.4	76.3	76.8
20. Activity rate (% of population aged 55-64)	:	:	:	17.9	21.3	22.3	24.9	26.9	25.5	26.7	29.6
21. Total unemployment (000)	:	:	:	135	127	129	113	104	89	81	87
22. Unemployment rate (% labour force 15+)	:	:	:	16.6	15.8	15.7	13.9	12.8	11.2	10.1	10.3
23. Youth unemployment rate (% labour force 15-24)	:	:	:	36.2	38.2	38.2	35.1	31.1	28.5	27.2	28.5
24. Long term unemployment rate (% labour force)	:	:	:	10.8	9.6	9.0	8.4	7.8	7.3	6.5	6.3
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	13.2	12.9	13.4	11.6	9.8	8.4	7.7	7.8

Labour market indicators: Macedonia FYR

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	:	:	:	2 038	2 042	2 044	2 046
2. Population aged 15-64	:	:	:	:	:	:	:	1 421	1 433	1 435	1 439
3. Total employment (000)	:	:	:	:	:	:	:	:	:	:	:
4. Population in employment aged 15-64	:	:	:	:	:	:	:	563	583	602	623
5. Employment rate (% population aged 15-64)	:	:	:	:	:	:	:	39.6	40.7	41.9	43.3
6. Employment rate (% population aged 20-64)	:	:	:	:	:	:	:	43.9	45.0	46.3	47.9
7. Employment rate (% population aged 15-24)	:	:	:	:	:	:	:	14.4	15.2	15.7	15.7
8. Employment rate (% population aged 25-54)	:	:	:	:	:	:	:	51.6	52.8	53.9	55.3
9. Employment rate (% population aged 55-64)	:	:	:	:	:	:	:	27.9	28.8	31.7	34.6
10. FTE employment rate (% population aged 15-64)	:	:	:	:	:	:	:	:	:	:	:
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	:	:	:	6.6	6.7	5.8	5.6
13. Fixed term contracts (% total employees)	:	:	:	:	:	:	:	11.9	12.6	14.7	15.5
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	55.0	56.0	56.6	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	33.9	33.0	32.0	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	11.0	11.0	11.4	:
17. Activity rate (% population aged 15-64)	:	:	:	:	:	:	:	62.2	62.8	63.5	64.0
18. Activity rate (% of population aged 15-24)	:	:	:	:	:	:	:	35.8	35.9	35.9	35.0
19. Activity rate (% of population aged 25-54)	:	:	:	:	:	:	:	77.3	77.9	78.1	78.5
20. Activity rate (% of population aged 55-64)	:	:	:	:	:	:	:	39.0	40.0	44.3	46.9
21. Total unemployment (000)	:	:	:	:	:	:	:	321	317	310	299
22. Unemployment rate (% labour force 15+)	:	:	:	:	:	:	:	36.1	35.0	33.8	32.2
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	:	:	:	59.7	57.7	56.4	55.1
24. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	:	:	:	:
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	:	:	:	21.4	20.7	20.2	19.3
Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	:	:	:	1 020	1 024	1 025	1 026
2. Population aged 15-64	:	:	:	:	:	:	:	718	726	727	729
3. Total employment (000)	:	:	:	:	:	:	:	:	:	:	:
4. Population in employment aged 15-64	:	:	:	:	:	:	:	347	354	369	385
5. Employment rate (% population aged 15-64)	:	:	:	:	:	:	:	48.3	48.8	50.7	52.8
6. Employment rate (% population aged 20-64)	:	:	:	:	:	:	:	53.6	54.0	56.2	58.4
7. Employment rate (% population aged 15-24)	:	:	:	:	:	:	:	17.2	18.6	19.2	20.6
8. Employment rate (% population aged 25-54)	:	:	:	:	:	:	:	61.8	62.1	64.0	65.7
9. Employment rate (% population aged 55-64)	:	:	:	:	:	:	:	39.0	38.6	43.0	47.6
10. FTE employment rate (% population aged 15-64)	:	:	:	:	:	:	:	:	:	:	:
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	:	:	:	6.0	6.5	4.7	4.7
13. Fixed term contracts (% total employees)	:	:	:	:	:	:	:	13.2	14.1	16.2	17.4
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	:	:	:	75.0	74.8	76.6	77.6
18. Activity rate (% of population aged 15-24)	:	:	:	:	:	:	:	42.0	43.8	43.3	43.4
19. Activity rate (% of population aged 25-54)	:	:	:	:	:	:	:	91.1	90.4	91.8	92.7
20. Activity rate (% of population aged 55-64)	:	:	:	:	:	:	:	56.9	56.4	62.9	66.0
21. Total unemployment (000)	:	:	:	:	:	:	:	192	189	188	181
22. Unemployment rate (% labour force 15+)	:	:	:	:	:	:	:	35.3	34.6	33.5	31.8
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	:	:	:	58.9	57.4	55.7	52.7
24. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	:	:	:	:
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	:	:	:	24.7	25.1	24.1	22.9
Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	:	:	:	1 018	1 019	1 020	1 020
2. Population aged 15-64	:	:	:	:	:	:	:	702	707	708	711
3. Total employment (000)	:	:	:	:	:	:	:	:	:	:	:
4. Population in employment aged 15-64	:	:	:	:	:	:	:	216	229	233	238
5. Employment rate (% population aged 15-64)	:	:	:	:	:	:	:	30.7	32.3	32.9	33.5
6. Employment rate (% population aged 20-64)	:	:	:	:	:	:	:	34.0	35.8	36.2	37.1
7. Employment rate (% population aged 15-24)	:	:	:	:	:	:	:	11.4	11.5	12.0	10.6
8. Employment rate (% population aged 25-54)	:	:	:	:	:	:	:	41.0	43.0	43.4	44.5
9. Employment rate (% population aged 55-64)	:	:	:	:	:	:	:	17.5	19.6	21.1	22.4
10. FTE employment rate (% population aged 15-64)	:	:	:	:	:	:	:	:	:	:	:
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	:	:	:	7.6	7.2	7.6	7.0
13. Fixed term contracts (% total employees)	:	:	:	:	:	:	:	10.1	10.5	12.4	12.6
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	:	:	:	49.2	50.4	50.2	50.0
18. Activity rate (% of population aged 15-24)	:	:	:	:	:	:	:	29.3	27.5	28.1	26.2
19. Activity rate (% of population aged 25-54)	:	:	:	:	:	:	:	63.0	65.0	63.9	63.9
20. Activity rate (% of population aged 55-64)	:	:	:	:	:	:	:	22.3	24.6	26.9	29.0
21. Total unemployment (000)	:	:	:	:	:	:	:	129	128	122	118
22. Unemployment rate (% labour force 15+)	:	:	:	:	:	:	:	37.2	35.6	34.2	32.8
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	:	:	:	60.9	58.2	57.4	59.4
24. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	:	:	:	:
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	:	:	:	17.8	16.0	16.1	15.6

Labour market indicators: Turkey

All	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	:	:	:	68 063	68 897	69 721	70 537
2. Population aged 15-64	:	:	:	:	:	:	:	44 584	45 303	45 988	46 771
3. Total employment (000)	22 051	21 970	21 744	21 357	21 150	21 794	22 103	22 394	22 645	23 143	23 236
4. Population in employment aged 15-64	:	:	:	:	:	:	:	19 885	20 219	20 633	20 698
5. Employment rate (% population aged 15-64)	:	:	:	:	:	:	:	44.6	44.6	44.9	44.3
6. Employment rate (% population aged 20-64)	:	:	:	:	:	:	:	48.2	48.2	48.4	47.8
7. Employment rate (% population aged 15-24)	:	:	:	:	:	:	:	30.3	30.2	30.3	28.9
8. Employment rate (% population aged 25-54)	:	:	:	:	:	:	:	53.2	53.2	53.4	52.8
9. Employment rate (% population aged 55-64)	:	:	:	:	:	:	:	27.7	27.2	27.5	28.2
10. FTE employment rate (% population aged 15-64)	:	:	:	:	:	:	:	:	:	:	:
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	:	:	:	7.6	8.4	9.3	11.3
13. Fixed term contracts (% total employees)	:	:	:	:	:	:	:	12.5	11.9	11.2	10.7
14. Employment in Services (% total employment)	33.7	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	20.5	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	45.8	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	:	:	:	49.0	49.1	49.8	50.8
18. Activity rate (% of population aged 15-24)	:	:	:	:	:	:	:	36.3	36.5	37.1	37.4
19. Activity rate (% of population aged 25-54)	:	:	:	:	:	:	:	57.4	57.5	58.2	59.4
20. Activity rate (% of population aged 55-64)	:	:	:	:	:	:	:	28.7	28.1	28.7	29.9
21. Total unemployment (000)	:	:	:	:	:	:	2 030	1 953	2 013	2 275	3 047
22. Unemployment rate (% labour force 15+)	:	:	:	:	:	:	9.2	8.7	8.8	9.7	12.5
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	:	:	17.4	16.4	17.2	18.4	22.7
24. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	2.7	2.3	2.3	2.8
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	:	:	:	6.0	6.3	6.9	8.5

Male	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	:	:	:	33 754	34 176	34 587	34 998
2. Population aged 15-64	:	:	:	:	:	:	:	22 088	22 464	22 821	23 226
3. Total employment (000)	:	:	:	:	:	:	:	:	16 798	17 031	16 825
4. Population in employment aged 15-64	:	:	:	:	:	:	:	14 772	15 012	15 192	14 992
5. Employment rate (% population aged 15-64)	:	:	:	:	:	:	:	66.9	66.8	66.6	64.5
6. Employment rate (% population aged 20-64)	:	:	:	:	:	:	:	73.2	73.0	72.7	70.4
7. Employment rate (% population aged 15-24)	:	:	:	:	:	:	:	41.9	41.6	41.3	39.0
8. Employment rate (% population aged 25-54)	:	:	:	:	:	:	:	80.7	80.7	80.2	77.9
9. Employment rate (% population aged 55-64)	:	:	:	:	:	:	:	41.6	40.6	41.0	41.1
10. FTE employment rate (% population aged 15-64)	:	:	:	:	:	:	:	:	:	:	:
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	:	:	:	4.3	4.7	5.3	6.5
13. Fixed term contracts (% total employees)	:	:	:	:	:	:	:	12.6	12.0	11.1	10.5
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	:	:	:	73.3	73.4	73.8	74.0
18. Activity rate (% of population aged 15-24)	:	:	:	:	:	:	:	49.8	50.2	50.5	50.6
19. Activity rate (% of population aged 25-54)	:	:	:	:	:	:	:	87.2	87.2	87.5	87.6
20. Activity rate (% of population aged 55-64)	:	:	:	:	:	:	:	43.7	42.5	43.4	44.3
21. Total unemployment (000)	:	:	:	:	:	:	1 504	1 428	1 474	1 653	2 200
22. Unemployment rate (% labour force 15+)	:	:	:	:	:	:	9.1	8.6	8.7	9.6	12.5
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	:	:	17.2	15.9	17.0	18.2	22.8
24. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	2.3	2.0	2.0	2.5
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	:	:	:	7.9	8.6	9.2	11.6

Female	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
1. Total population (000)	:	:	:	:	:	:	:	34 309	34 721	35 133	35 540
2. Population aged 15-64	:	:	:	:	:	:	:	22 496	22 839	23 167	23 545
3. Total employment (000)	:	:	:	:	:	:	:	:	5 847	6 112	6 410
4. Population in employment aged 15-64	:	:	:	:	:	:	:	5 112	5 207	5 442	5 706
5. Employment rate (% population aged 15-64)	:	:	:	:	:	:	:	22.7	22.8	23.5	24.2
6. Employment rate (% population aged 20-64)	:	:	:	:	:	:	:	24.0	24.2	24.9	25.8
7. Employment rate (% population aged 15-24)	:	:	:	:	:	:	:	19.3	19.4	19.8	19.3
8. Employment rate (% population aged 25-54)	:	:	:	:	:	:	:	25.5	25.6	26.5	27.6
9. Employment rate (% population aged 55-64)	:	:	:	:	:	:	:	14.8	14.7	14.8	16.0
10. FTE employment rate (% population aged 15-64)	:	:	:	:	:	:	:	:	:	:	:
11. Self-employed (% total employment)	:	:	:	:	:	:	:	:	:	:	:
12. Part-time employment (% total employment)	:	:	:	:	:	:	:	17.3	19.1	20.2	23.7
13. Fixed term contracts (% total employees)	:	:	:	:	:	:	:	12.1	11.5	11.6	11.5
14. Employment in Services (% total employment)	:	:	:	:	:	:	:	:	:	:	:
15. Employment in Industry (% total employment)	:	:	:	:	:	:	:	:	:	:	:
16. Employment in Agriculture (% total employment)	:	:	:	:	:	:	:	:	:	:	:
17. Activity rate (% population aged 15-64)	:	:	:	:	:	:	:	25.1	25.2	26.2	27.8
18. Activity rate (% of population aged 15-24)	:	:	:	:	:	:	:	23.4	23.5	24.4	24.9
19. Activity rate (% of population aged 25-54)	:	:	:	:	:	:	:	27.5	27.6	28.8	31.0
20. Activity rate (% of population aged 55-64)	:	:	:	:	:	:	:	14.9	14.8	15.0	16.3
21. Total unemployment (000)	:	:	:	:	:	:	527	525	539	622	847
22. Unemployment rate (% labour force 15+)	:	:	:	:	:	:	9.3	9.1	9.1	10.0	12.6
23. Youth unemployment rate (% labour force 15-24)	:	:	:	:	:	:	17.9	17.4	17.5	18.9	22.4
24. Long term unemployment rate (% labour force)	:	:	:	:	:	:	:	3.6	3.1	3.1	3.8
25. Youth unemployment ratio (% population aged 15-24)	:	:	:	:	:	:	:	4.1	4.1	4.6	5.6

European Commission

Employment in Europe 2010

Luxembourg: Publications Office of the European Union

2010 — 197 p. — 21 x 29.7 cm

ISBN 978-92-79-16795-9

doi:10.2767/72770

Produced annually by the Directorate-General for Employment, Social Affairs and Equal Opportunities, the *Employment in Europe* report is now in its 22nd year. It has become one of the main tools of the European Commission for supporting Member States in analysis, formulation and implementation of their employment policies.

Employment in Europe 2010 begins by assessing EU labour market adjustment since the onset of the economic crisis, taking account of the crisis' impact and future prospects. It also analyses EU and Member State policies aimed at mitigating the effects of the crisis and supporting recovery, and looks ahead to their gradual phasing out. The Report then examines the need to reduce segmentation in labour markets and improve the job situation of young people before drawing conclusions on the way forward.

This publication is available in printed format in English only.

How to obtain EU publications

Free publications:

- via EU Bookshop (<http://bookshop.europa.eu>);
- at the European Union's representations or delegations. You can obtain their contact details on the Internet (<http://ec.europa.eu>) or by sending a fax to +352 2929-42758.

Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

Priced subscriptions (e.g. annual series of the *Official Journal of the European Union* and reports of cases before the Court of Justice of the European Union):

- via one of the sales agents of the Publications Office of the European Union (http://publications.europa.eu/others/agents/index_en.htm).

2010
European Year
for Combating
Poverty and
Social Exclusion

KE-AH-10-001-EN-C

www.2010againstopoverty.eu

Are you interested in the **publications**
of the Directorate-General for Employment,
Social Affairs and Equal Opportunities?

If so, you can download them or take out a free subscription at
<http://ec.europa.eu/social/publications>

You are also welcome to sign up to receive
the European Commission's free Social Europe e-newsletter at
<http://ec.europa.eu/social/e-newsletter>

<http://ec.europa.eu/social>



www.facebook.com/social europe



■ Publications Office

ISBN 978-92-79-16795-9



9 789279 167959