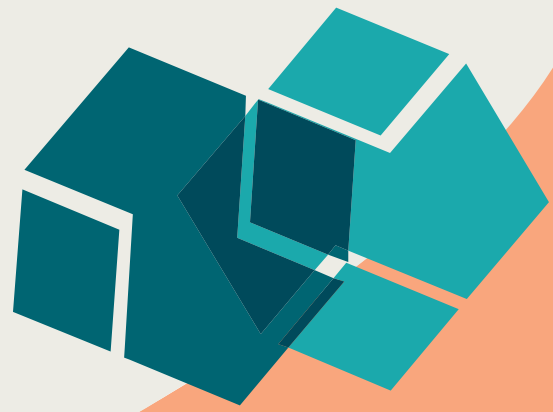




# Working Paper Series GRINCOH

Growth-Innovation-Competitiveness  
Fostering Cohesion in Central and Eastern Europe



**Serie 4**  
Societies and social change

**Paper No. 4.01**

## **Labour Market Developments and Social Welfare**

**Hermine Vidovic\***

\* The Vienna Institute for International Economic Studies

**2013**

**[www.grincoh.eu](http://www.grincoh.eu)**

Hermine Vidovic [vidovic@wiiw.ac.at](mailto:vidovic@wiiw.ac.at)  
Vienna Institute for International Economic Studies  
[www.wiiw.ac.at](http://www.wiiw.ac.at)

Please cite as:

Vidovic H., (2013), 'Labour Market Developments and Social Welfare', GRINCOH Working Paper Series, Paper No. 4.01

## ***Labour Market Developments and Social Welfare***

### **Abstract**

Employment and activity rates in the new EU Member States (NMS) declined significantly up to the early 2000s and started to increase along with strong GDP growth thereafter. Job losses following the outbreak of the economic and financial crisis varied substantially across countries and have not been offset yet. Overall, the low educated and the young people are very disadvantaged on the NMS labour markets. With the exception of Poland and Slovenia, non-standard types of employment are uncommon in the NMS, following the pattern of Southern EU countries. Employment protection legislation has been adjusted to 'European standards' in the entire region. Union density and consequently the impact of trade unions on wage setting and employment in the NMS fell dramatically. In all NMS unemployment insurance schemes as well as minimum wage regulations were introduced at the beginning of the 1990s, but are less generous than in the EU-15.

### **Content**

Introduction.....	2
I Labour market developments.....	2
Demography.....	2
Output and employment.....	4
Employment rates.....	5
Non-standard employment.....	8
Sectoral employment.....	10
Unemployment.....	12
II Labour market institutions.....	15
Employment protection legislation.....	15
Impact of labour market institutions on transition countries' labour market performance.....	16
III Labour market policies.....	17
Passive labour market policies.....	18
Active labour market policies (ALMPs).....	20
Trade unions.....	21
Minimum wages.....	22
Conclusions.....	24
Bibliography.....	26

## **Introduction**

The labour markets in the new EU Member States underwent a dramatic fall of employment during most of the 1990s accompanied by growing and high open unemployment, declining employment and activity rates and a massive exit from the labour market. This process went along with significant changes in the sectoral structure of the GDP and employment. In almost all countries a reallocation of labour occurred from agriculture and industry to the services sector. At the same time employment shifted from large state-owned enterprises to small private sector firms. Following periods of almost jobless growth the labour markets of the new EU Member States experienced an upswing only from the beginning of the 2000s until the outbreak of the economic and financial crisis. During the crisis nearly one million jobs were lost in the region, the only exception being Poland, where employment was on the rise. The rather sluggish economic performance to be observed ever since in most countries had only minor effects on improving labour market outcomes. In some countries migration helped to cushion the problem of unemployment.

Along with the transition process the then accession countries started to introduce unemployment benefit schemes similar to those in Western European countries while at the same time attempts were made to liberalise the labour markets, i.e. easing hiring and firing rules. Minimum wage regimes were introduced in the entire region.

The present study examines the evolution of employment and labour market trends in the new EU Member States (NMS) over the past two decades. It focuses on selected labour market indicators and draws comparisons with the EU-15. The analysis is divided into two parts, labour market developments and labour market institutions. In Part One, we examine demographic developments in the NMS and the evolution of employment and unemployment by gender, age and education as well as structural changes on the labour market during the transition. Part Two traces the evolution of labour market institutions since the start of the transition – this will include the analysis of the employment protection legislation (EPL), active and passive labour market policies, unemployment benefit systems and trade union membership. Finally we will draw some conclusions.

The labour market analyses are based on EU Labour Force Survey data (annual averages) provided by Eurostat, the only source to release comparable information on labour market trends. In some countries there are breaks in the time series which may affect the analysis.

## **I Labour market developments**

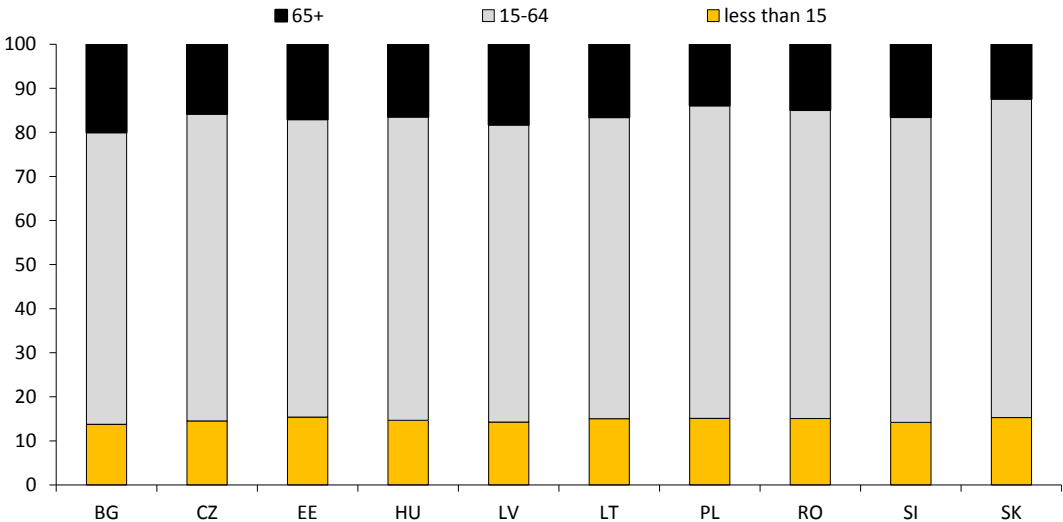
### **Demography**

Population growth in the NMS has been negative over the past two decades. Available information on the latest census results shows that over the period 2000-2011 the population in the NMS-10 declined by 5% – almost double the rate witnessed during the 1990s – whereas at the same time the population in the EU-15 increased by nearly 6%. The decrease was particularly strong in Latvia, Lithuania, Bulgaria and Romania where the decline ranged between 10% and 15%; in Poland, Hungary and Estonia the fall was less than 4%. Only in Slovenia, the Czech Republic and in Slovakia did the population actually increase. Almost half of the population decline was caused by outward migration from the region, while the other half was due to the negative natural increase (Leitner and Vidovic, 2012). In the entire region fertility rates (births per woman) fell below the replacement level (2.1) in 2011. Hungary reports the lowest fertility rate (1.23) not only among the NMS but in the

EU-27 (1.59) as whole, followed by Romania and Poland, while the highest level was recorded in Lithuania (1.76).<sup>1</sup> As in most Western European countries the population is ageing in the NMS; the share of people over 65 years is generally on the rise.

The proportion of young people up to the age of 14 years has been falling: as illustrated in Figure 1 the lowest proportions of this age group are found in Bulgaria (below 14%), Slovenia and Latvia (slightly above 14%); Slovakia exhibits the highest share of young people. The proportion of prime-age workers (15-64 years) is over 70% in Slovakia, followed by Romania and Poland, and lowest in Bulgaria (66%).

**Figure 1. Population by age groups, in % of total, 2011**



Source: wiiw Monthly Database incorporating national and Eurostat statistics.

Population ageing is most advanced in Bulgaria, where 20% belong to the age group 65 years and over, followed by Latvia, Estonia and Lithuania. A key measure of population ageing is the old-age dependency ratio, which is the number of persons aged 65 and over expressed as a percentage of the number of persons aged between 15 and 64. In 2011 this ratio exceeded the EU average of 26% in Latvia, Bulgaria and Lithuania and was below 20% in Slovakia and Poland. In the period 1990-2011 the old-age dependency ratio increased most in Hungary, Lithuania and Slovenia, meaning that the number of retirees eligible for social benefits is on the rise, while the number of prime-age workers contributing to the social security system is decreasing.

The EU enlargement has triggered a significant increase in labour mobility from the new to the old Member States. The stock of NMS migrants in the EU-15 countries increased from about 1.6 million in 2003 to about 4.8 million in 2009 (Holland et al., 2011, p. 49). Labour migration is particularly high from Latvia, Lithuania, Bulgaria, Romania and Poland. It helped to cushion the problem of rising unemployment during the crisis and remittances are an important source of income. Conversely, migration has a negative impact on the demographic composition of the population as many young – and well educated – people are leaving and the loss of the labour force has ‘the potential for significant effects on the future economic and social development of the countries’ (Bogdanov and Rangelova, 2012), e.g. labour shortage, reduction of potential output, depopulation of rural areas

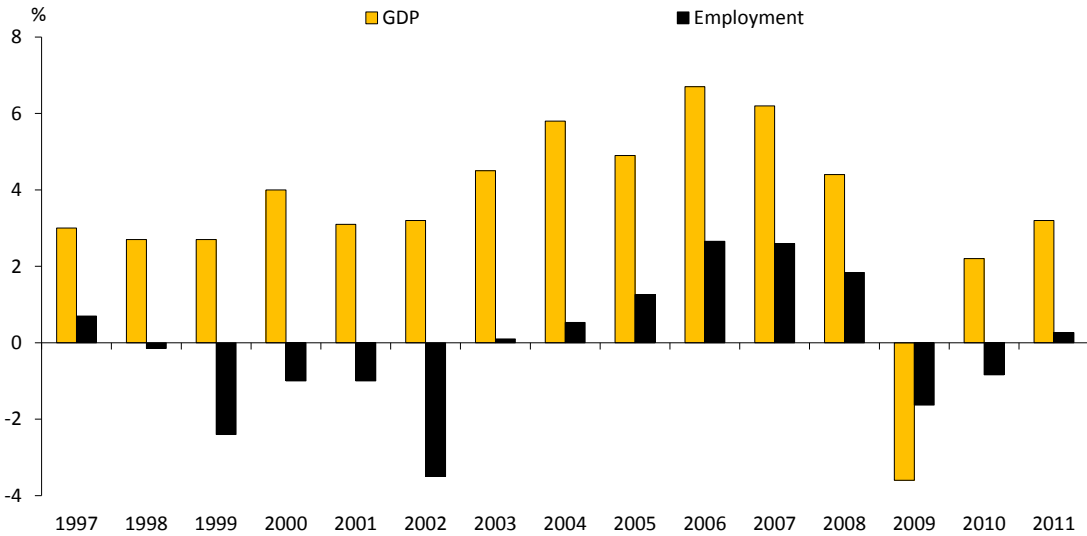
<sup>1</sup> According to Eurostat, in the EU-27 only France and Ireland report fertility rates above 2%.

etc. Labour mobility declined during 2008-2009 and unemployment rates among migrants increased. But, contrary to the expectations that the economic crisis may trigger a significant return migration of NMS nationals from the EU-15, there is no evidence of a massive return and migrants either stayed in their host countries or moved to another destination (Eurofound, 2012a); Latvia and Lithuania witnessed even an intensified mobility to the EU-15 (Belorgey et al., 2012). Following the 2004 enlargement, migration flows into the EU-15 were ‘redirected’ to the United Kingdom and Ireland as Germany opened up its labour market for EU-8 citizens only in 2011. Spain and Italy became important destination countries for migrants from Bulgaria and Romania already before the latter countries’ accession in 2007.

**Output and employment**

The drastic fall of GDP at the outset of the transition was accompanied by strong employment declines. Bulgaria and Hungary were affected most, while job losses were less severe in the Czech Republic and Romania. The economic recovery starting in most countries in 1993/94 resulted only in slight or temporary employment increases that could not be sustained. Hungary, suffering from heavy job losses in the initial stage of transition, was the only country to report steady employment increases from 1997 to 2003; thereafter, however, employment virtually stagnated. Poland was successful in creating new jobs in the mid-1990s, but suffered painful employment cuts of about one million persons between 1999 and 2002, mainly due to the changing macroeconomic environment (Podkaminer, 2006). Employment growth in Poland returned only after the resumption of GDP growth from 2003 onwards. As shown in Figure 2, employment growth in the NMS started with a time lag to GDP growth – known as jobless growth – implying a rather low employment elasticity of output growth. The reason for this is the implied catching-up process in aggregate productivity levels in the NMS. Even periods of sustained output growth go along with rather stationary employment growth. In the pre-crisis period the employment threshold (growth rate of output which is necessary to keep employment constant) stood at 4-5% in the NMS (Havlik, 2008), whereas according to more recent calculations the threshold diminished to close to 3% (Astrov et al., 2013).

**Figure 2. GDP and employment growth in NMS-10, change in % against preceding year**



Source: wiiw Annual Database incorporating national statistics.

In the entire region employment fell by an estimated 11.7 million between 1989 and 2003 and started to increase thereafter by 3.5 million to 43.1 million in 2008, the peak level so far. As a consequence of the economic and financial crisis, about one million jobs were lost in the NMS, most of which in Bulgaria, Latvia, Lithuania, Romania and the Czech Republic. Poland, by contrast, reported continuous employment gains (Annex Table 1).

### **Employment rates**

The dramatic job losses in the NMS, particularly at the beginning of the 1990s, went along with remarkable declines in employment rates.<sup>2</sup> Following a slight recovery of employment in some countries in the early 2000s, employment rates began to rise from 2003 and reached a peak level in 2007/2008 (Figure 3). After the outbreak of the economic and financial crisis, employment rates dropped with some delay to the output fall in all countries with the exception of Poland. However, the incidence of job losses differed by countries. The three Baltic countries were hit hardest, experiencing a dramatic fall of employment rates up to 2010 (in Estonia and Latvia by about 9 percentage points), but reporting a recovery thereafter. In Poland, which did not suffer from the crisis at all, and in Romania employment rates remained almost stagnant in the past couple of years, while they continued to decline in Bulgaria and Slovenia. In 2011 the employment rates resembled the EU-15 pattern (65.7%) in the Czech Republic and in Estonia and were close to that level in Slovenia, but lower in all other NMS, with Hungary ranging at the bottom of the scale (by 10 percentage points lower than the EU-15 average). Hungary has been reporting the lowest employment rate throughout the period under consideration: particularly affected were unskilled, young, female and older workers, while only for the group with tertiary education and people living in the Western, more prosperous, part of Hungary employment rates exceeding the national average were reported (Fazekas and Scharle, 2012).

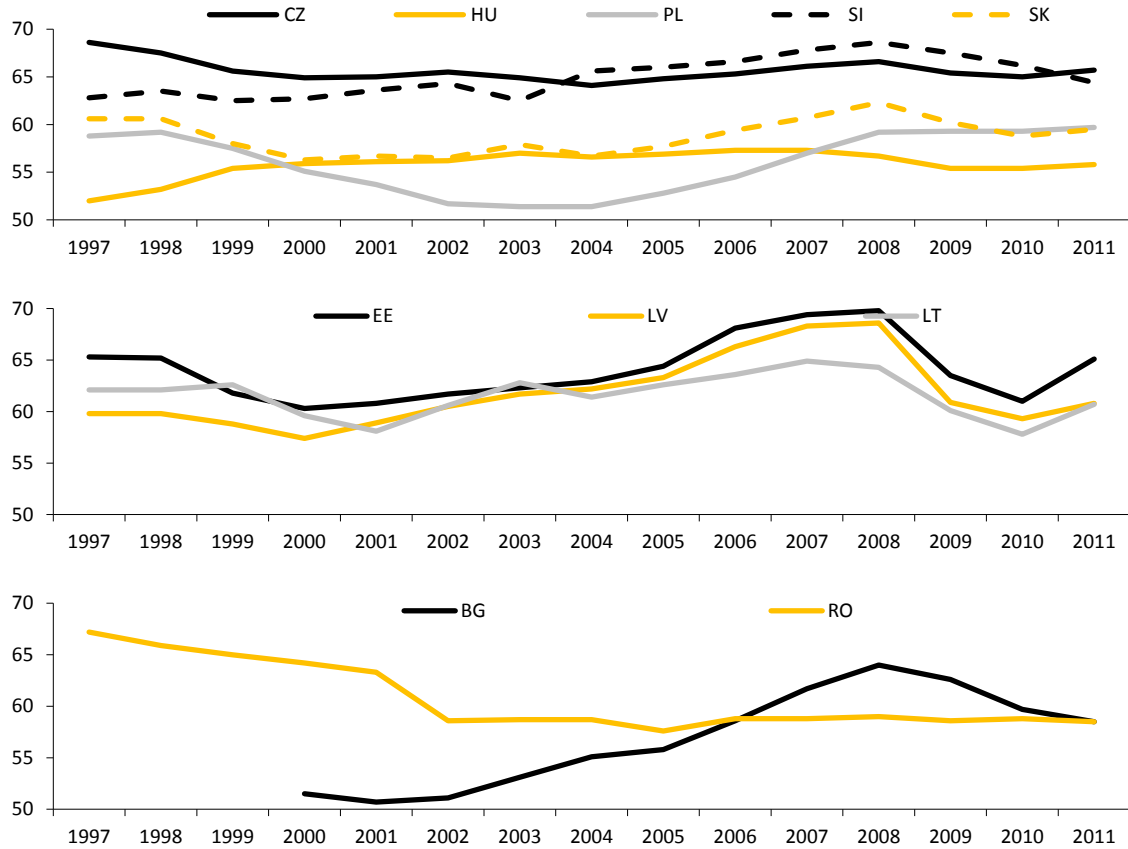
Notable differences between the NMS and the EU-15 exist also with regard to the employment rates by **gender** and for different age groups. Starting from levels that were much higher than the EU-15 average in the late 1990s, female employment rates have remained above the EU average only in Slovenia and the three Baltic countries, but fell below that mark everywhere else. Among the NMS, therefore, female employment rates in 2011 ranged from 63% in Estonia to 52% in Romania. Employment rates of women were higher in 2011 than in 1997 in all NMS except Romania, the Czech Republic and Slovakia.

In contrast to female employment rates, male employment rates in the NMS had been well below the EU-15 average in the mid-1990s in all countries except the Czech Republic. During the crisis the pace of decline of the employment rates of men was much stronger than that for females, particularly in the Baltic countries. Like everywhere else in the European Union this is primarily explained by the fact that the economic downturn had hit males more than females due to the sectors that were immediately affected by the crisis, such as construction and manufacturing. There is every possibility that, once those branches have recovered from the present crisis, the impact could be that the male-female balance might progressively revert to the traditional pattern with women being more adversely affected by cyclical fluctuations than men (Leitner and Vidovic, 2012).

---

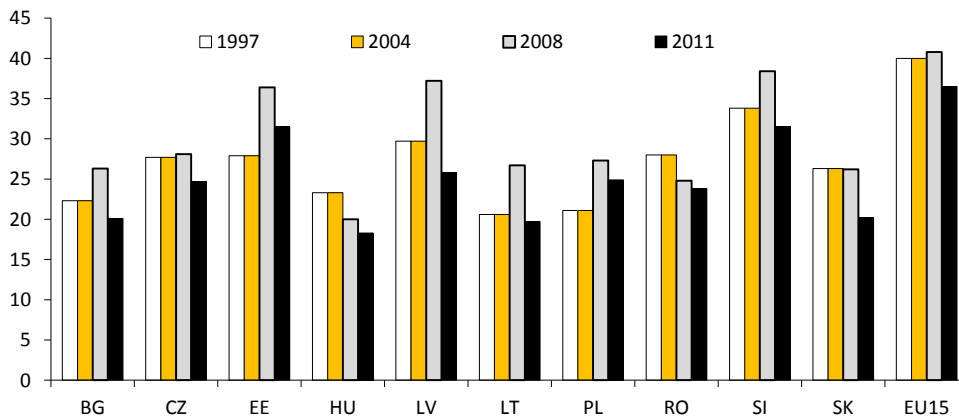
<sup>2</sup> According to Burda, Boeri and Köllö (1998), in the period between 1989 and 1996 the steepest falls of employment rates were reported for Hungary (-22.9%) and Bulgaria (-22.2%), Poland (-13.1%) and the Slovak Republic (-11.6%). By contrast, employment rates in the Czech Republic and in Romania dropped by only 9.6% and 5.6% respectively. These figures are based on registration data and are not comparable with the LFS data obtained from the mid-1990s.

**Figure 3. Employment rates, total (15-64), 1997-2011**



Source: Eurostat.

**Figure 4. Employment rates – young people (15-24 years)**



Note: Data 1997: LV, LT, SK 1998; BG, EU-27 2000.

Source: Eurostat.

With the exception of Hungary and Bulgaria, NMS employment rates of men were lower in 2011 than in 1997. The most pronounced declines over this period were observed in Romania<sup>3</sup> and Lithuania, the Czech Republic and Latvia. In Slovenia and Poland male employment rates remained stagnant.

<sup>3</sup> LFS results for Romania lack comparability with previous years due to methodological changes.

Employment rates of young people show a steady decline since the late 1990s in most NMS, with the most severe (two-digit) drops in the period 1998-2011 recorded for the Czech Republic, Hungary, Slovakia, Lithuania and Romania. As illustrated in Figure 4 only three countries (Slovenia, Latvia, Estonia) witnessed a marked rise of youth employment rates from 2002/2003 onwards until the outbreak of the crisis, but reported a decline thereafter with strong variations across the region. Only in Estonia did the employment rates of young people show an impressive recovery in 2011. Up to 2005 Bulgaria was the country exhibiting the lowest youth employment rate and has also the highest NEET rate (neither in education, employment nor training) in Europe. Since 2005 Hungary reported the lowest youth employment rate among the NMS, representing only half the EU-15 average.

Employment rates increase with the level of education, however to different extents in the individual countries. When it comes to tertiary education, employment rates show a very similar pattern in the NMS and the EU-15 with over 80% on average, in Slovenia even at 86% (See Annex Table 2). During the crisis all NMS suffered from declining employment rates of the high-skilled with the strongest drops reported for Slovakia, Estonia (from a very high level) and Bulgaria. The decline was however less pronounced than in the other two educational groups. Slovakia is also the country displaying the lowest employment rate among the NMS for those having a tertiary education.

Differences as compared with the EU-15 occur, however, in the medium and lowest educational groups. The employment rate of the medium-educated (about 64% on average in the NMS) is below the EU-15 level in all NMS but the Czech Republic, but again developments over time differ across countries. In the economic boom phase prior to the financial crisis employment rates of the medium-educated in Slovenia, the Czech Republic, Latvia and Estonia exceeded the EU-15 level remarkably, but displayed dramatic falls thereafter. In 2011 only the Czech Republic did report a higher rate, with Hungary ranging at the lower end of the scale. The biggest differences exist in the group of the low-educated, reporting extremely low employment rates as compared with the EU-15. In Slovakia (with traditionally low employment rates of the low-educated), but also in Latvia, where the low-educated suffered heavily from the crisis, the employment rates of this educational group amounted to only 14-15% in 2011. By contrast, the highest employment levels of the low-skilled are reported for Romania (having still a large agricultural sector) and Slovenia. The latter, however, was among those NMS experiencing the most dramatic declines of employment rates of the low-skilled together with Latvia and Bulgaria in the aftermath of the crisis.

In all NMS the share of the highly skilled in total employment increased during the past decade (particularly in Latvia, Lithuania, Poland and Slovenia), while at the same time the low-skilled and the medium-skilled suffered significant losses. Bulgaria and Romania are the only two countries in the region gaining employment shares in the medium-skilled category.

The poor labour market position of the low-educated in the NMS is also reflected by the very high unemployment rates (over 25%), while the average unemployment rate in the EU-15 is 16%. The low-skilled in Slovakia and Lithuania are in the worst situation, with unemployment rates of 42% and 37% respectively in 2011. While the situation for persons with the lowest educational attainment deteriorated in Lithuania as a consequence of the economic and financial crisis, this group has been worse off in Slovakia since the late 1990s. Romania and Slovenia (the latter despite strong employment losses in the past couple of years) report the lowest unemployment rates for that group. Regarding the unemployment rates of the medium-skilled, these were more than double the EU-15 average in Latvia and Lithuania, and 4 percentage points higher than the EU-15 average in



Estonia and Slovakia in 2011, but the Baltic countries were already recovering from the dramatic increases during the crisis. Slovenia and Romania follow a pattern similar to the EU-15, while the unemployment rate of the medium-skilled is below that level in the Czech Republic. The unemployment rate of the high-educated, which was lower in the NMS (except Poland) than in the EU-15 until the outbreak of the crisis, has deteriorated ever since and was at high levels particularly in the Baltic countries. The Czech Republic by comparison reports the lowest unemployment rate of the highly skilled, only half the rate of the EU-15.

The overall picture emerging from the analysis by educational groups is that in the NMS the low-educated in particular are very disadvantaged on the labour market.

### **Non-standard employment**

Non-standard forms of employment (part-time, temporary work, self-employment) which have been increasingly used in the old EU countries since the beginning of the 1990s are not very common in the NMS, where full-time employment has been a legacy of the communist past. Only Poland and the successor states of the former Yugoslavia had a tradition of self-employment in the agricultural sector, which was based on small private family farming (Nesporova, 1999).

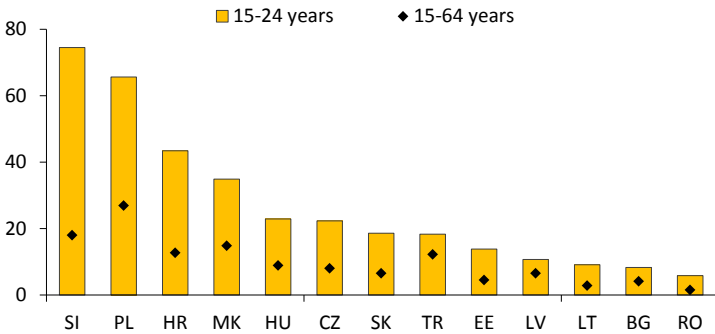
The most frequently used form of non-standard employment in the NMS is self-employment, with the highest share in total employment recorded in Romania and Poland (20% and 19% respectively) in 2011 versus the lowest in Estonia (8%) – as compared with the EU-15 average of 15%. In some NMS (Romania, Poland, Latvia, Lithuania) self-employment is concentrated in farming, while in the Czech Republic, Estonia, Hungary and Slovenia the highest shares of self-employed worked in market services – similar to the EU-15. In Romania more than three quarters of self-employment is accounted for by small farmers operating around 4.23 million individual farms. Slovakia is a special case in that respect with the majority of self-employed working as tradesmen (EEO, 2010). Regarding age, most of the self-employed are in the age group 65 years and above, implying that they keep their business longer and postpone retirement or continue working in agriculture (Eurostat, 2012). With respect to gender, self-employed are primarily men.

Part-time work, representing about 19% of total employment in the EU-27, accounted for only 7% in the NMS in 2011, ranging from 2.2% in Bulgaria to 9.5% in Slovenia (see Annex Table 3). However, the NMS compare well with the Southern EU countries and it seems there is a dividing line between North/West and South/East European countries. Employees in the NMS appear to prefer full-time work – despite efforts by the governments making part-time work more attractive – possibly because they need full-time pay to achieve an acceptable standard of living (Eurofound, 2011). In many new Member States it is socially acceptable to work longer than average ‘because they want to boost their low hourly wages and salaries’ (Eurofound, 2011). This may also explain why the shares of part-time work are very similar for both sexes. By contrast, differences among the EU-15 countries, where part-time work is much more popular and primarily a female phenomenon, are much bigger: here the share of part-time employment ranges from 6.8% in Greece to 49% in the Netherlands. In the period 1997-2011 the share of part-time work increased only in Hungary, Slovenia and Slovakia (in the latter from a very low level) and fell in all other countries, of which most pronouncedly in Latvia. At the same time the share of part-time work rose by 3 percentage points on EU average. As in the EU-15, part-time work is mainly a female phenomenon in the NMS, but the difference between the proportions of men and women working part-time is considerably smaller. In 2011, the relative number of men in employment working part-time differed only slightly between the two groups of

countries, but the share of women, ranging from 2.6% in Bulgaria to 15.4% in Estonia, was well below the EU-15 average (37.6%). In contrast to the EU-15, where it has risen continuously in the past couple of years, the share of part-time employment of men fell remarkably in Romania (to the EU-15 average of close to 10%), Poland, Latvia and Lithuania and remained almost unchanged in the Czech Republic and Estonia. The share of part-time employment of men rose only in Estonia, Hungary, Slovenia and Slovakia, but is still very low as compared with the EU-15 average.

A look at the period 2008-2011 shows, however, a different picture, with the share of part-time work increasing in all countries but Poland, with above EU-27 average rises in the three Baltic countries, Hungary, Slovakia and Slovenia. In Estonia, Latvia and Slovakia men were contributing more to the rising part-time rates than women. The countries hit hardest by the crisis, the Baltic States in particular, recorded a dramatic increase of involuntary part-time work (Leschke, 2012).

**Figure 5. Temporary employment, in % of total employees, 2011**



Source: Eurostat, national statistics.

*Temporary work*<sup>4</sup> does not play an important role in the NMS excepting Poland and Slovenia, where this type of employment has been rising steadily over the recent years. In Poland, labour legislation provides a strong incentive for employers to make use of such flexible forms of employment, and about 27% of employees have temporary contracts (partly involuntarily); in Slovenia this share is 18% (see Figure 5). In both Slovenia and Poland, switching from a temporary assignment to a permanent contract is considered a relatively difficult procedure. Temporary workers in Poland are in a particularly unfavourable situation. Three factors weigh heavily against them: (i) they can be discharged at a week’s notice; (ii) as temporary employees, they have no claim to social security or the minimum wage; and (iii) their situation is similar to that of day-labourers (Trappmann, 2011). Young workers aged 15-24 are being employed in non-standard jobs in ever-increasing numbers. In 2011, for example, 75% of the young employees in Slovenia and 66% of the young people working in Poland only had temporary contracts – the highest rates in the EU. With the exception of the Czech Republic and Slovenia, the share of males working on a temporary contract is higher than that for females. The rise in temporary employment is the outcome of the reforms pertaining to legislation on employment protection (i.e. hire-and-fire regulations) that a number of EU Member States and certain accession states at the time have adopted over the past few decades.<sup>5</sup> Having introduced flexibility ‘at the margin’, the reforms paved the way for deregulation of the use of temporary

<sup>4</sup> According to the LFS definition temporary employment includes fixed-term contracts, seasonal work and non-permanent temporary agency work.

<sup>5</sup> This paragraph is based on Employment in Europe 2010, Chapter 3, Youth and segmentation in EU labour markets, pp. 117

contracts and the maintenance of strict regulations governing the dismissal of workers on permanent contracts. This asymmetric reform strategy has resulted in the emergence of two distinct labour markets: one for permanently protected employees (insiders) and the other for temporary employees (outsiders) who enjoy little or no protection and whose career and wage prospects are extremely limited.

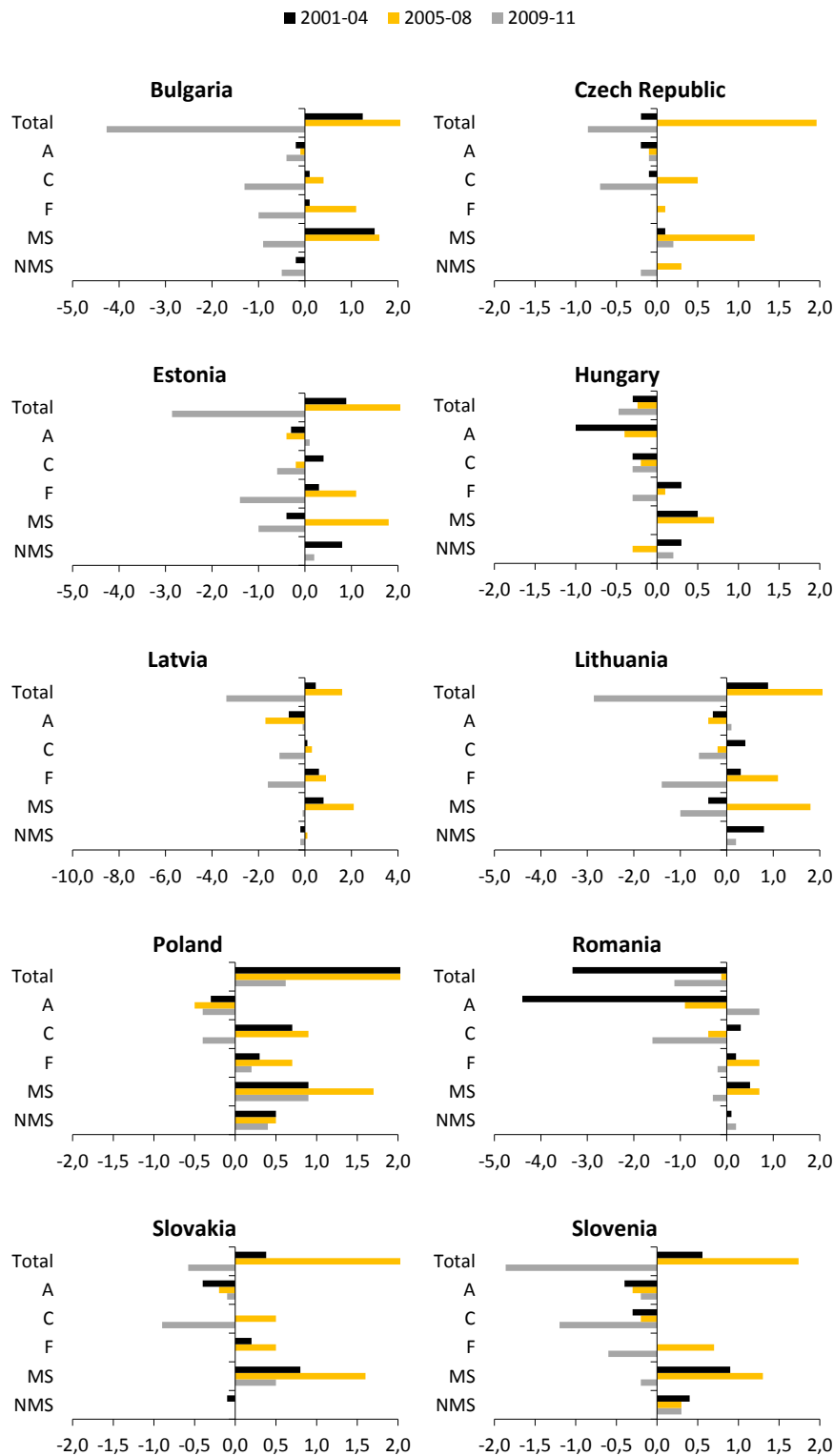
### **Sectoral employment**

Sectoral employment developments in the transition countries are strongly affected by the legacy of economic structures inherited from the communist period – with its heavy emphasis on industry and relative neglect of service activities – combined with a path of convergence in output structures and catching-up in productivity levels, both of which lead to a convergence of employment structures with the more advanced EU economies. Hence, starting from the mid-1990s, job creation in the NMS was mainly concentrated in the tertiary sector, whereas employment in agriculture and in industry was falling. As shown in Figure 6, prior to the crisis, in all NMS excepting Slovenia and Romania employment gains were due to job creation in the market services sector, of which particularly in the non-tradable services segments (comprising trade, restaurants, real estate activities etc). In Slovenia, tradable services (transport, communication, financial services and scientific and technical activities) and construction contributed most to employment, in Romania construction (Hanzl-Weiss and Landesmann, 2013). During the crisis (2009-2011) the construction sector was affected most by job losses in countries that experienced a construction boom prior to the crisis which is particularly true in the case of the Baltic countries. In the other countries the manufacturing sector contributed most to the employment decline. With the exception of the Czech Republic, Hungary and Slovakia all NMS suffered job losses in the market services segment; in Bulgaria, Latvia and the Czech Republic a reduction in non-market services occurred - reflecting the introduction of fiscal consolidation measures (Hanzl-Weiss and Landesmann, 2013). In three countries – Romania, Estonia and Lithuania – agriculture acted as an employer of last resort during that period.

However, convergence processes do not fully explain the picture: for example, some of the NMS found niches for themselves as being preferred locations for industrial production and hence the employment shares in industry remain at a relatively high level (Landesmann and Vidovic, 2006). This is especially the case in the Czech Republic and Slovakia, attracting FDI in the automotive sector. As shown in Figure 7, industrial employment still accounts for a large share of employment in the Czech Republic (37% in 2009), Slovakia and also Slovenia (33% each), while agriculture remained an important employer in Romania (29%), Bulgaria (20%) and Poland (13%). In the latter the share of agricultural employment had halved in the 1995-2009 period.

Having undergone an impressive adjustment process in the past two decades, employment patterns in the NMS, particularly in Romania, still differ from those in the EU-15. The gaps, however, vary from country to country. In 2009 services sector employment was highest in Hungary, Latvia and Lithuania, at over 60%, which is still below the EU-15 average (70%). It is interesting to note that Slovenia and the Czech Republic, the most developed NMS in terms of GDP per capita, along with Bulgaria and Poland (apart from the extreme of Romania) exhibit the lowest proportion of services sector employment in the region.

**Figure 6. Contributions to employment growth by countries, averages over the time period**

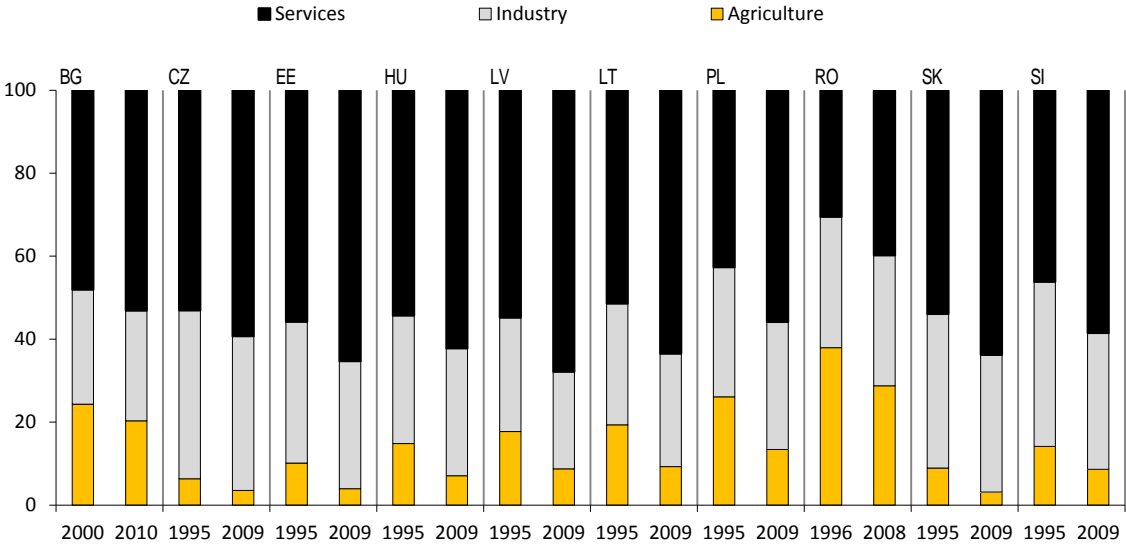


Notes: Based on NACE Rev. 2 classification scheme: A (Agriculture), C (Manufacturing), F (Construction), MS (Market Services H,J,K,M, G,I,L,N,R,S,T), NMS (Non-market Services O,P,Q). Contributions are calculated by multiplying the share in total employment by annual growth.

Bulgaria, Romania (until 2008) based on NACE Rev. 1.

Source: wiiw Database incorporating national and Eurostat statistics

**Figure 7. Employment structure, shares in % of total, 1995 and 2009**



Note: Based on National Account concept (NACE Rev. 1); RO acc. to LFS.

Source: Eurostat.

**Unemployment**

The dramatic job losses that occurred during the transition process either gave rise to a decline in activity (and employment) rates, as people were quitting the labour market, or resulted in increasing and persistent unemployment during the 1990s. As shown in Figure 8 the strong economic performance starting from 2002/2003 helped to improve the situation on the labour market. Up to 2007/2008 unemployment declined in all countries including Poland and Slovakia<sup>6</sup>, which had registered double-digit unemployment rates until 2006 and 2007 respectively. These two countries had traditionally and still have higher unemployment rates than the EU average, while unemployment in Slovenia, Romania and the Czech Republic has been well below or similar to the EU-15 average.

Over the entire period 1997-2011 unemployment has been higher for women than for men in the Czech Republic and Poland, and with some exceptions in Slovenia and Slovakia. In all other NMS females were less affected by unemployment than men. The gaps became particularly large in the three Baltic states in the past couple of years due to the huge job losses during the crisis. But also in Bulgaria and Romania the incidence of unemployment is higher for men than for women.

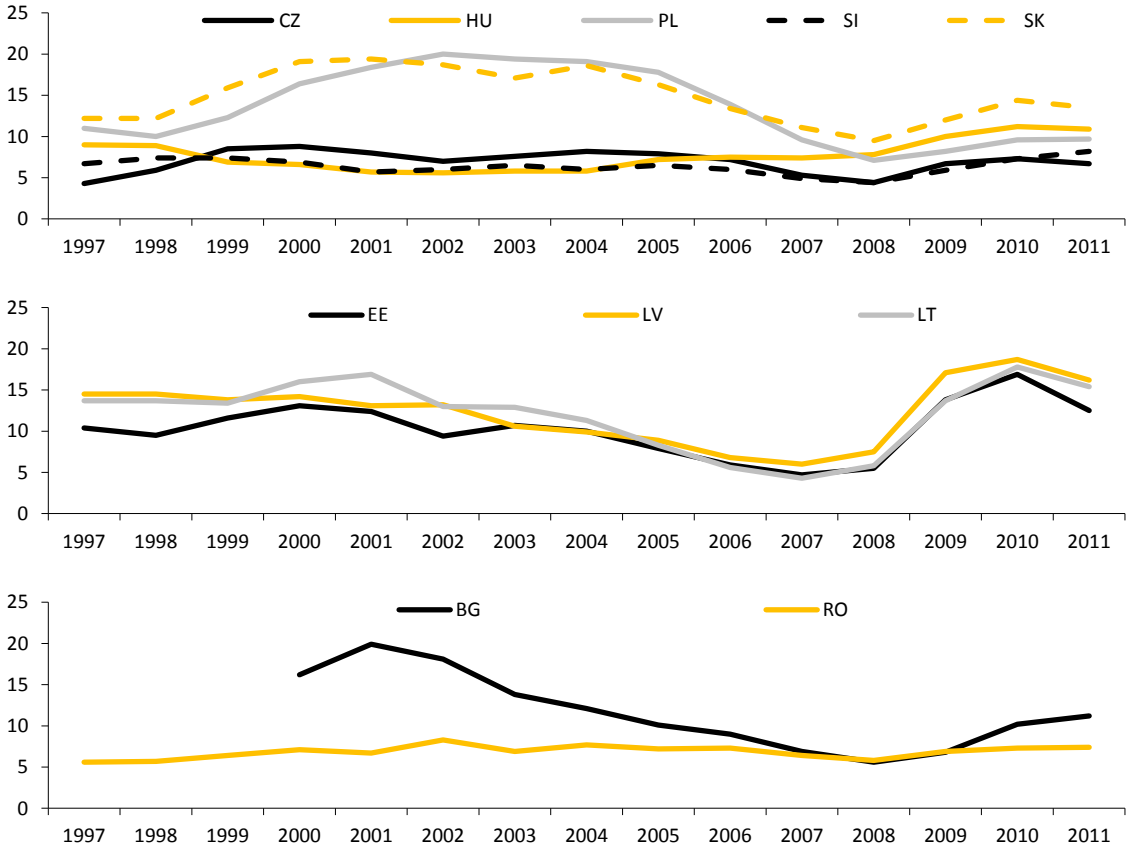
In most countries outward migration helped to cushion the problem of unemployment, particularly in low-demand regions and sectors (Bélorgey et al. 2012). For example, Barrell et al. (2010) found that in the years 2006 to 2008, unemployment was reduced on average by 0.8 percentage points in Lithuania and by 0.4 percentage points in Poland, with a permanent downward shift in Lithuania.

Youth unemployment in the NMS has been on average about twice as high as the national average rates up to 2008, but the gap has been widening thereafter (particularly in the Czech Republic and in

<sup>6</sup> The main reasons for the high unemployment in Poland and Slovakia included, apart from low GDP growth in Poland for some years, restructuring and demographic factors (large numbers of young people entering the labour market). In Slovakia the very high unemployment among the Roma population also contributes to the high overall rate.

Slovakia). Romania is an exception with a youth unemployment rate three times higher than the overall rate from 2007 onwards, whereas the ratio was lowest in Latvia. Slovenia has managed to reduce the high youth unemployment that prevailed in the late 1990s by a strong rise in temporary employment, high enrolment rates in tertiary education, but also by favourable demographics.<sup>7</sup> Since the outbreak of the economic and financial crisis the gap has remained almost unchanged in most NMS, except in the Czech Republic and Slovakia where it increased, and in Lithuania reporting a narrowing of the gap. .

**Figure 8. Unemployment rates, total (15-74), 1997-2011**



Source: Eurostat.

Using the concept of NEETs – the share of persons neither in employment nor in education and training in the age group 15 to 24 years – reveals another picture of young peoples’ problems in the labour market, but has to be treated with some caution.<sup>8</sup> In the European Union NEETs have become an important group which was addressed by the ‘Youth on the Move’ initiative within the context of the EU’s 2020 strategy and also in the EU’s Employment Package. The NEETs group is very heterogeneous across the EU, but also in the NMS. Eurofound (2012b) identified four different clusters including countries with certain similarities. Accordingly the NMS are represented in three clusters<sup>9</sup>: Bulgaria, Hungary, Poland, Romania and Slovakia represent along with Italy and Greece countries with the highest NEET rates (Cluster 2); compared with the EU average the share of women

<sup>7</sup> According to the findings of the World Development Report 2013 sustained growth before the global crisis was ultimately responsible for much of Slovenia’s decline in youth unemployment.

<sup>8</sup> The NEET concept captures a very heterogeneous group of population; ‘some of its sub-groups are vulnerable and some are not, and it also varies over time’ (Eurofound, 2012, p. 27).

<sup>9</sup> NMS are not represented in Cluster 1 comprising continental and Nordic countries with low NEET rates.

is higher, young people included in this group have no or less work experience, and the share of discouraged workers and those with tertiary education is higher. Cluster 3, including the three Baltic countries (and Spain, Ireland and Portugal), exhibits an above-average NEET rate; the majority is unemployed, male, with work experience and highly skilled, but also the share of discouraged workers exceeds the EU average. The NEET rate in these countries is mainly driven by unemployment as a consequence of the crisis. The Czech Republic and Slovenia (in Cluster 4 with Cyprus, Belgium, France and Luxembourg) have a below-average NEET rate; the majority is female, medium-skilled, NEETs are mainly unemployed and have working experience, and the share of discouraged workers is below the EU average.

As illustrated in Table 1 after having declined from the beginning of the 2000s until the outbreak of the crisis, NEET rates increased in all NMS thereafter. In 2011, the year for which the most recent data are available, the situation varied remarkably across countries. In Slovenia and in the Czech Republic, reporting NEET rates of 7-8%, and in Poland and Estonia, the situation was better than or similar to the EU-15 average (close to 13%). Bulgaria – an outlier during the whole decade – showed the worst picture among the NMS with a share of 22% of persons aged 15-24 who neither attended school or training measures nor were employed.

**Table 1. Young people not in employment and not in any education and training, in % of the age group 15-24 years**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bulgaria	28.1	29.0	26.4	25.1	22.2	19.1	17.4	19.5	21.8	22.6
Czech Republic	12.4	13.7	13.7	13.3	9.2	6.9	6.7	8.5	8.8	8.3
Estonia	10.3	10.2	12.1	10.2	8.8	8.9	8.8	14.9	14.5	11.8
Hungary	13.9	12.6	12.7	12.9	12.4	11.3	11.5	13.4	12.4	13.3
Lithuania	11.8	10.3	10.9	8.6	8.2	7.0	8.9	12.4	13.5	12.5
Latvia	14.3	11.5	10.9	10.0	11.1	11.8	11.4	17.4	17.8	15.7
Poland	17.5	16.7	15.0	13.9	12.6	10.6	9.0	10.1	10.8	11.6
Romania	21.6	20.3	19.8	16.8	14.8	13.3	11.6	13.9	16.4	17.4
Slovenia	9.5	8.0	7.5	8.9	8.5	6.7	6.5	7.5	7.1	7.1
Slovakia	27.1	18.2	17.9	15.8	14.4	12.5	11.1	12.5	14.1	13.8
EU-15	11.1	11.6	11.6	11.9	11.2	10.8	11.0	12.5	12.6	12.7

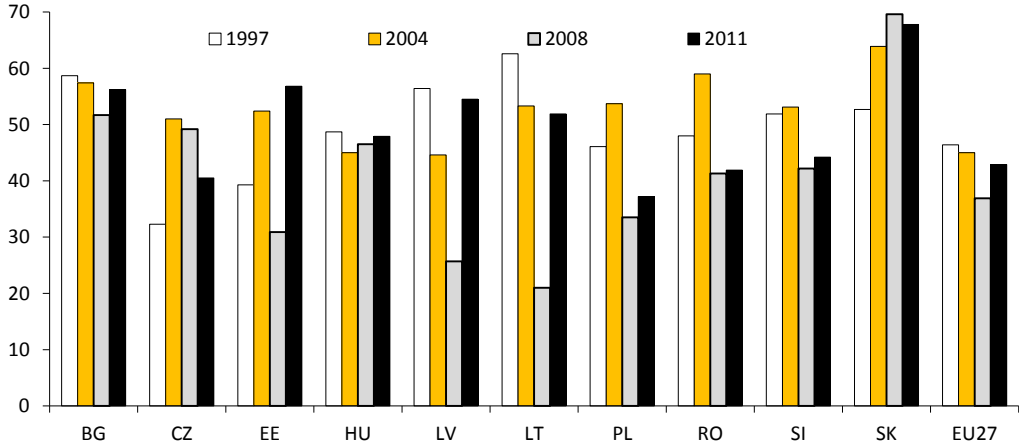
Source: Eurostat.

The youth unemployment ratio (proportion of unemployed youth aged 15-24 years in the population of the same age group) offers another insight into youth unemployment since it takes into account also the share of the young people still enrolled in education (EC, 2012). Available figures show in some cases rather diverging results as compared with the results obtained from the NEETs concept. Accordingly, in 2011 Latvia and Slovakia reported the highest youth unemployment ratios (exceeding the EU average of 9.7%), followed by Estonia, Lithuania and Poland. Countries such as Hungary, Bulgaria and Romania, considered as most affected in terms of NEETs, report ratios of 6.4-7.4%. Only in the case of the Czech Republic and Slovenia are NEETs results confirmed by those obtained for unemployment ratios.

Unemployment, seen as a temporary phenomenon at the beginning of transition, turned out to become persistent and long-term (unemployed for 12 months and above). At the end of the 1990s half of the NMS reported a share of long-term unemployed exceeding 50% of total unemployed (Figure 9). Following the economic recovery at the beginning of the 2000s, long-term unemployment continued to decline in line with overall unemployment until 2008 and even in the first phase of the economic and financial crisis when unemployment jumped dramatically. This can be explained by the fact that higher inflows into the pool of unemployed at the beginning of an economic downturn tend

to reduce the average incidence of long-term unemployment (Council of Europe, 2009). However, the longer the crisis lasts, long-term unemployment started to rise again. The differences in long-term unemployment are substantial across individual NMS: in 2011 it reached much higher levels than the EU-15 average in Bulgaria, Hungary and Slovakia. The latter has been hit most severely not only among the NMS but in the EU as a whole with the highest share of long-term unemployed over the entire 1998-2011 period. People mainly affected by long-term unemployment in Slovakia are the low-skilled (despite their low share in the overall labour force), the oldest and the youngest age groups, females (declining gap vs men) and very often members of the Roma minority (Vagac, 2012). A look at transition rates (from employment to unemployment and from unemployment to employment) shows that e.g. Bulgaria, Slovakia, Romania and to some extent Hungary have limited labour market dynamics, i.e. relatively low inflows into unemployment but a low return to employment, and a deterioration of both transition rates which might be explained by unsuccessful policies, ensuring transition rates back to employment (EC, 2012).

**Figure 9. Long-term unemployment (12 months and over), share in total unemployment**



Note: Data 1997: LV, LT, SK 1998; BG, EU-27 2000.

Source: Eurostat.

## II Labour market institutions

### Employment protection legislation

Rigid and inflexible labour markets have been considered an important source of high and persistent unemployment in Europe during the 1990s, particularly when compared with the United States. Measuring flexibility or rigidity of labour markets was subject to numerous studies at that time – e.g. Lazear (1990), Nickell (1997), Blanchard and Wolfers (1999) and the OECD in its Job Study (1994) and its Employment Outlook (1999). Since then there has been a controversial debate among economists on whether or not flexible labour markets lead to higher employment and better overall economic performance. For instance, Arratibel et al. (2007) conclude that the empirical research results are very ambiguous and fail to reveal any consistent effect of employment protection legislation on the levels of employment and unemployment.

There exist several definitions in the literature on labour market flexibility. Generally, labour market flexibility refers to the extent and speed with which labour markets adapt to fluctuations and changes in society, the economy and production cycles (Standing, 1999; HM Treasury, 2003; Eamets



and Masso, 2004). The most widely-used distinction of labour market flexibility is the one made by Atkinson (1984) that distinguishes flexibility depending on where the flexibility exists (internal or external to the firm) and how it is developed (functionally, numerically or financially). This division allows for four distinct types of flexibility (Atkinson, 1984; Atkinson and Meager, 1986): external numerical or contractual flexibility, internal numerical or working time flexibility, functional flexibility and financial or wage flexibility. Hahn (1998) analyses flexibility within the general equilibrium theory, in which flexibility is a way to allocate all resources in a Pareto efficient way or characterise it in terms of institutional features that influence wage setting and supply and demand in the labour market, and ultimately labour market performance.

The bulk of the literature on flexibility is focusing on employment protection legislation (EPL) of countries and shares of atypical employment or temporary, fixed-term work (Chung, 2007), an assessment of which is primarily a matter of data availability.

In view of the EU entry and the subsequent adoption of the euro, labour market flexibility became also an important research issue in the then candidate countries. Following the OECD methodology, Riboud et al. (2002) examined the role of labour market institutions – job security provisions, support programmes for the unemployed and other related policies – in a group of EU accession countries (the Czech Republic, Estonia, Hungary, Poland, the Slovak Republic and Slovenia) in the 1990s and compared the results with those obtained for the OECD including the then EU countries. As far as flexibility is concerned, the Central and East European countries ranked somewhere in the middle of the scale measured by the employment protection legislation index (EPL)<sup>10</sup>.

**Table 2. Employment protection in selected countries, 2008**

	Protection of permanent workers against individual dismissal	Regulations against temporary employment forms	Specific requirements for collective dismissal	OECD employment protection index
Bulgaria	2.1	0.9	4.1	2.0
Czech Republic	3.0	1.7	2.1	2.3
Estonia	2.3	2.2	3.3	2.4
Latvia	.	.	.	2.6
Lithuania	.	.	.	2.8
Hungary	1.8	2.1	2.9	2.1
Poland	2.0	2.3	3.6	2.4
Slovakia	2.5	1.2	3.8	2.1
Slovenia	3.0	2.5	2.9	2.8
Romania	1.7	3.0	4.8	2.8

Source: OECD.

### **Impact of labour market institutions on transition countries' labour market performance**

In a further step the research contributions examined the impact of labour market institutions on the labour market performance during the 1990s. In general, it was found that the transition countries had introduced similar institutions (with similar rigidities) as the old EU, with some differences across

<sup>10</sup> Employment Protection Legislation (EPL) is described along 21 basic items which can be classified in three main areas: (i) protection of regular workers against individual dismissal; (ii) regulation of temporary forms of employment; and (iii) additional, specific requirements for collective dismissals. Although some of these indicators are readily available from the countries' labour code (e.g. notice period, severance payment, maximum duration of temporary contracts), most of them need to be constructed using different sources of information, together with some subjective aggregation method. Raw data on each item are converted into a cardinal unit or value which is then converted into a score measured on a 0-6 scale, with higher values representing stricter regulation (OECD, July 2013).

countries. It was concluded that the impact on unemployment was uncertain, but that institutions may have an impact on the composition of the labour force and of employment. This is supported by the findings of Boeri and Garibaldi (2006), arguing that labour market institutions are no more 'rigid in the NMS than among the current EMU countries' and that the perception of rigid labour markets in the NMS was mainly because of the low job content of growth in the region, the latter however being 'related to productivity enhancing job destruction in the aftermath of prolonged labour hoarding'.

Similar results were obtained from a study by Cazes and Nesporova (2003), stating that 'no statistical impact of EPL was found on the various unemployment rates of transition countries' but EPL seemed to influence labour supply significantly. However, the results obtained for the latter display different outcomes for Western OECD countries and transition countries: while in Western countries stricter employment protection legislation tends to have a negative effect on employment and activity rates, in transition countries quite the opposite was found, i.e. restrictive legislation leads to higher levels of employment and labour market participation in the formal sector of the economy. This could be due to a stronger incentive to find or retain a job in the formal sector when job security is higher in that sector. Svejnar (2002) stressed that labour market flexibility, while being an issue, is not a major factor in comparison to varying degrees of imperfections and regulations in other areas such as in housing, transport and capital markets.

Ederveen and Thissen (2004), examining the impact of labour market institutions on unemployment in the ten new EU member countries, found that institutions were less rigid than in the EU-15 and that only a part of unemployment could be explained by institutions, even in the high-unemployment countries Poland and Slovakia. They concluded that in some countries labour market reforms could be conducive to improving employment performance (e.g. in Hungary, where a high tax wedge poses severe problems). Similarly, Blanchard et al. (2006) found that unemployment in some selected transition countries (Czech Republic, Hungary, Poland, Romania, Russia and Slovakia) 'cannot be explained by the evolution of labour market institutions' and if they matter, it has to be in combination with other factors in explaining unemployment. Schiff et al. (2007) and Bassanini and Duval (2006) arrive at the same results, arguing that labour market outcomes are not only influenced by flexibility, but also by a range of policies such as relatively high minimum wages, high labour taxes and extended social benefits. Also Fialova and Schneider (2008), analysing the effects of labour market institutions in the Czech Republic, Hungary, Poland and Slovakia, show that stricter employment protection, higher taxes and high minimum wages lead to declining employment and activity rates. In addition they found that institutional effects between 'old' and 'new' EU members were different.

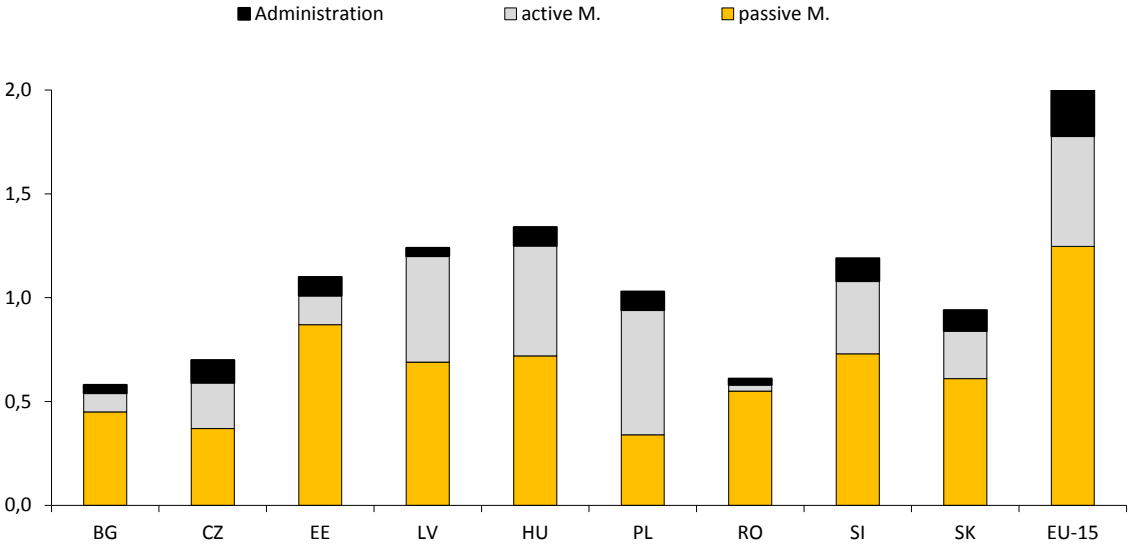
### **III Labour market policies**

Soon after the start of the transition all Central and East European (CEE) transition countries implemented active and passive labour market policies (mainly in the form of unemployment benefits). Unemployment benefit systems comprise two main instruments: unemployment benefits and unemployment assistance. Unemployment benefits are based on contributions and limited in time and on the insurance principle. Unemployment assistance aims at the prevention of unemployment-related poverty and is usually means tested and paid to the long-term unemployed who are no longer entitled to unemployment benefit. In contrast to the EU-15 where unemployment assistance schemes are in place, the majority of NMS comprising Bulgaria, the Czech Republic,

Lithuania, Poland, Romania, Slovakia and recently also Hungary<sup>11</sup> do not operate unemployment assistance schemes, but offer social assistance not directly linked to unemployment (EC,2012, Eurofound, 2012).

In the NMS expenditures on both passive and active labour market policy measures relative to the GDP have been below the EU-15 level. In 2010, the latest year for which data are available, expenditures varied between 0.58% in Bulgaria and 1.34% in Hungary, while the respective value in the EU-15 was exceeding the 2% mark.

**Figure 10. Expenditures on Labour Market Policies, in % of GDP, 2010**



Source: Eurostat.

**Passive labour market policies**

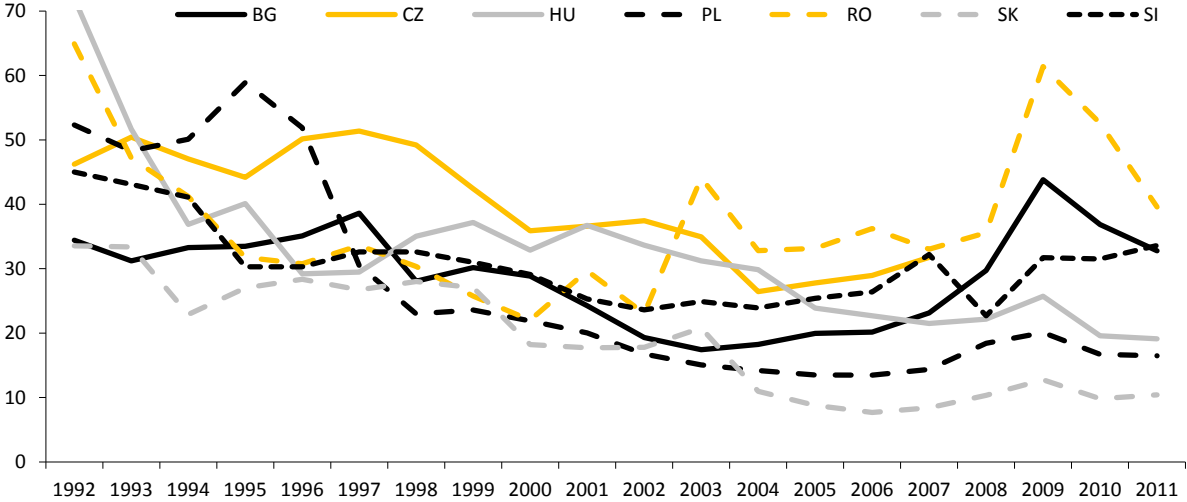
In all Central and East European transition countries, unemployment insurance schemes were introduced at the end of the 1980s or beginning of the 1990s, based on schemes operating in the OECD (Boeri and Keese, 1992). Faced with growing budgetary burdens, the governments very soon reduced the levels of protection in unemployment; already in 1992-93 the eligibility criteria to qualify for unemployment benefits were tightened in all CEE countries. Unemployment benefit recipients were, among other things, required to have a minimum period of previous employment and the level of unemployment benefits was based on fixed replacement rates of previous wages (Scarpetta and Reutersward, 1994; Ham, Svejnar and Terrell, 1998; Svejnar, 2002). Most funds in the early period of transition were allocated to income support and early retirement schemes (Nesporova, 1999).<sup>12</sup> A broad overview of the individual countries’ unemployment benefit systems in the 1990s is provided by Vodopivec, Wörgötter and Raju (2003), Nesporova (1999) and UNECE (2003). A comprehensive survey on changes and transformations of the unemployment benefit systems for all EU Member States during the 2000s is provided by Eurofound (2012).

<sup>11</sup> In Hungary unemployment assistance was abolished in 2011 when major restrictions with respect to unemployment benefit entitlements came into force (Fazekas and Scharle, 2012).

<sup>12</sup> Apart from supporting older people through the possibility of early retirement, e.g. Hungary had introduced youth entrants’ unemployment benefits in the 1991-1995 period.

Overall, unemployment benefit schemes<sup>13</sup> in the NMS are characterised by high initial replacement rates (dropping remarkably in the first year of entitlement), limitations in terms of their benefit level and duration, low coverage and restricted access. Moreover, the role of PES and the range of available services are not very developed ‘with limited monitoring or obligations to participate in activation strategies’ (EC, 2012). While unemployment assistance is very uncommon in the NMS – exceptions being Estonia, Latvia and Hungary - ‘the unemployed can draw on substantial means-tested income support provided by housing and social benefits’ (Stovicek and Turrini, 2012).

**Figure 11. Share of unemployment benefit recipients in total unemployed, in %**



Source: National statistical Offices of respective countries (until 2007: wiiv Database incorporating national statistics).

**Table 3. Major changes in the UB systems in the new EU Member States 2001-2012**

Country	Unemployment insurance (UI)	Unemployment Assistance (UA)	Social Assistance (SA)
Bulgaria	2000,2004, 2007,2009, 2010	Absent	Absent
Czech Republic	2004, 2007, 2012, 2012	Absent	No significant change
Estonia	2007, 2009	2009	No significant change
Hungary	2005, 2011	2005, 2011	No significant change
Latvia	2010	2002, 2010	2009
Lithuania	2005, 2008	Absent	2009
Poland	2003, 2008	Absent	2004
Romania	2002, 2004, 2007, 2008, 2009, 2010	Absent	2012
Slovakia	2003, 2004	Absent	2003
Slovenia	2006, 2010	Removed in 2006	2010

Source: Eurofound, 2012.

Throughout the past decade there have been numerous changes in the unemployment insurance schemes in the NMS (see Table 3). In Bulgaria, the Czech Republic and Romania four or more changes have occurred in the period 2001-2012 (Eurofound, 2012). The revisions of the unemployment schemes, especially the tightening of the eligibility criteria, but also active labour market policy measures contributed to a reduction in the share of unemployment benefit recipients in most NMS in the past two decades. In Poland and Hungary, about 80% and 60% respectively of registered

<sup>13</sup> Stovicek and Turrini (2012) have classified unemployment benefit systems of the Central and Eastern European countries as a separate grouping among EU countries apart from the Nordic countries, continental countries, Anglo-Saxon countries and Southern countries.

unemployed were entitled to unemployment benefits in 1990, while in 2011 the respective share shrank to 16.5% and 19%; in the Czech Republic, Hungary and Romania the share was cut by half, while it increased somewhat in Slovenia. In 2011 the share of unemployment benefit recipients varied between 10% in Slovakia and 40% in Romania.

The individual countries responded differently to the crisis in terms of eligibility criteria: while in Estonia, Romania and Slovenia eligibility criteria were somewhat relaxed after 2007, they were tightened in the Czech Republic, Hungary, Lithuania and Romania (Eurofound, 2012). With respect to the duration of benefit<sup>14</sup>, the maximum duration (depending on the years of service, the period insured, age of the applicant) ranges between two years in Slovenia and only three months in Hungary, which introduced very tight restrictions in 2011. In most other NMS the maximum benefit duration is 11-12 months. In most cases the amount of the benefit is determined as a share of the recipient's previous earnings such as in Bulgaria, Estonia, Hungary and Slovenia; in the Czech Republic it represents a proportion of the average wage in the national economy, in Romania a variable rate of the national reference indicator, while in Poland it is dependent on the applicant's records and in Lithuania it consists of a fixed and a variable component. The funding of unemployment insurance is differing across countries: most of the NMS, including Bulgaria, Hungary, Slovakia, Slovenia and Romania, envisage joint contributions by employers and employees. In the Czech Republic and Lithuania contributions are paid by employers, in Estonia mainly by employees, while in Poland the state is the main contributor and funding is supplemented by variable contributions paid by employers.

### **Active labour market policies (ALMPs)**

Parallel to passive labour market policy measures (primarily unemployment benefits) the transition countries introduced active labour market policy measures starting from the early phase of transition. Notable results of active labour market policy measures were obtained e.g. for the Czech Republic in the 1990s and for Bulgaria at the beginning of the 2000s (Nesporova and Kyloh, 1994; Beleva, 2004). In Bulgaria expenditures on ALMPs fell, however, steadily during the 2000s and reported the lowest level relative to the GDP among all transition countries in 2010. Overall, in the NMS expenditures on ALMPs were below the EU-15 level in the period 2004-2010, excepting Poland in 2010. With the exception of Bulgaria and Romania all countries of the region reported rising expenditures on ALMPs after the outbreak of the economic and financial crisis. In 2010, the last year for which data are available, ALMP expenditures varied between 0.09% in Bulgaria and 0.6% in Poland; also Hungary and Latvia reported values above 0.5%. During the crisis in some countries major shifts were observed from active to passive measures, with the most dramatic in relative and absolute terms recorded in Bulgaria, where rising expenditures for unemployment benefits have largely crowded out spending on active measures (Eurofound, 2010). Remarkable shifts were also reported in Lithuania and Slovakia. Over that period NMS used for financing ALMPs primarily funds provided by the European Union, the European Social Fund – ESF in particular (Tvrdon and Cieslarova, 2012). The priorities of ALMPs differ from country to country: while the Czech Republic and Poland support employment and rehabilitation, Hungary focuses on employment incentives and Slovakia on direct job creation.

---

<sup>14</sup> Information regarding unemployment benefit duration, the amount of benefits and funding relate to 2011/2012 is based on Eurofound (2012).

As regards the cost-effectiveness of ALMPs, Spevacek (2009) found that ALMPs in the CEE and CIS countries improve the outflows to employment and contribute to a reduction of the unemployment rates. But, the impacts vary by interventions applied and by countries. Lehmann and Kluve (2008), analysing the efficacy of ALMP measures in the transition countries, concluded that job brokerage, training and retraining schemes are the most promising, ‘while public works, which are politically popular in many of these countries, have nearly always a negative impact on labour market outcomes, due to either stigmatisation of participants in the eyes of potential employers or due to “benefit churning”’.

### Trade unions

During the transition period, union density and consequently the impact of trade unions on wage setting and employment in the new Member States fell dramatically, with the largest drops experienced in Hungary, Poland, Estonia and the Czech Republic (Eurofound, 2007). In 2008 the unweighted trade union density of the NMS stood at about 27%, while the weighted value was 23%. With the exception of Slovenia and Romania, where more than 30% of employees are union members, the union density levels in the NMS are below the EU average, including the largest, Poland, where 14% of employees are estimated to be union members. Union density is particularly low in Estonia and Lithuania, below 10%. By contrast, the coverage of workers by collective agreements exceeded union density in all countries where data are available (no data for Poland, Lithuania and Romania). In Slovenia almost all workers are covered by collective agreements. As a consequence of the general weakening of trade unions in the new Member States, the bargaining power has been declining both at national and company levels, particularly in the private sector.

The decline in union membership has been a common feature all over the European Union during the past decade, but was much more pronounced in the new Member States. With the exception of Slovenia and Slovakia, all other NMS range at the lower end of the scale. Among the old EU countries, union density is highest in the Scandinavian countries (70-80%), while extremely low in France (8%).

**Table 4. Trade union density and collective bargaining in the new EU Member States**

	Trade union density		collective bargaining coverage
	1995	2008/2009	
Czech Republic	41	17	40
Hungary	29	17	around 33
Poland	33	15	n.a.
Slovakia	57	17	35
Slovenia	63	30-40	96
Estonia	32	10	around 33
Latvia	25	15	34
Lithuania	15	9	n.a.
Bulgaria	37	20	30
Romania		30-50	n.a.

*Note: Trade union density: proportion of employees who are union members; collective bargaining coverage: number of employees covered by collective agreement as a proportion of all employees.*

*Source: Eurofound 2007, Eurofound 2009, <http://www.worker-participation.eu>*

A number of reasons for the decline in union density are to some extent shared between the new and old EU Member States, such as deindustrialisation and the rise of the less unionised services sectors. Other causes are specific to the situation of the transition economies, such as the loss of credibility of the institution of the unions, which had been compulsory under the communist regimes. In addition, also privatisation, high unemployment, and the increase in the number of small

and medium-sized enterprises have been quoted as reasons behind low unionisation rates in the new Member States (EIRO, 2002; Anspal and Vork, 2007). Unions have fragmented politically, often dividing between those unions with a legacy as 'official' unions from the past and those which have emerged as newly independent (Upchurch, 2006). The collective bargaining process is also hampered by lack of institutional capacity and resources of the social partners (EIRO, 2002).

Collective bargaining coverage differs widely across Europe. Overall, there is a divide between the bulk of the NMS except Slovenia and the EU-15, but also a considerable differentiation among the EU-15 (Eurofound, 2007). The average coverage rate in the new Member States (37%) is only half that of the EU-14 excluding Greece (Anspal and Vork, 2007). In most NMS collective bargaining is conducted at company level, while the sectoral level is most common for the old Member States. Only Slovenia and Slovakia deviate from this pattern in some respect due to the presence of sectoral bargaining.

In their multivariate regressions using parameters of the crucial labour market institutions Cazes and Nesporova (2000) did not find any difference between the OECD countries and the new EU Member States concerning the overall effects of labour market institutions on labour market performance. Social dialogue has lost its impact on employment and labour force participation, unemployment and long-term unemployment since the 1990s. Union density played even a negative role in the case of youth unemployment because of the strong protection of core workers, impeding the hiring of (inexperienced, young) workers.

As for Estonia, Eamets and Kallaste (2004) estimated the union wage differential (union mark-up versus non-union pay) to assess the bargaining power of trade unions: the results obtained reveal that trade unions in Estonia are weak in collective bargaining (no union wage differential). Finally, they conclude that 'trade unions in Estonia do not have an essential impact on wages and unemployment' and unions do not lower labour market flexibility. This does not come as a surprise taking into account a union density of only 12%.

### **Minimum wages**

Minimum wages have been subject to controversial debates. Trade union argue that minimum wages are a means of improving workers' standard of living and reducing their poverty as well as having knock-on effects (especially on other low-wage earners) 'as different sectors and occupations seek to preserve already established pay differentials' (Eurofound, 2007), while opponents consider them as a means of increasing unemployment, particularly of the low-skilled (Hanzl-Weiss and Vidovic, 2010). Minimum wage systems exist in all new EU Member States although at different levels. All countries have a national statutory minimum wage set by the government, in some cases after consultation with or recommendation of social partners. The new Members States have so-called 'clean-cut' systems, i.e. the wage distribution is truncated by a minimum wage that applies to most workers (Rycx and Kappelmann, 2012). Differences in minimum wages exist according to workers' age in the Czech Republic and Slovakia and based on occupation or qualifications in Latvia (Funk and Lesch, 2005). A comparison of all 20 EU Member States having minimum wage legislation shows that all new EU countries excepting Slovenia are in the group with the lowest minimum wages, ranging between EUR 157 in Romania and EUR 377 in Poland as of 1 January 2013.<sup>15</sup> In Slovenia, belonging to

---

<sup>15</sup> Eurostat divides these countries into three groups (low, medium and high wages), see [http://epp.eurostat.ec.europa.eu/statistics\\_explained/index.php/Minimum\\_wage\\_statistics](http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Minimum_wage_statistics)

the medium-wage group, it amounted to EUR 784. A ranking of monthly minimum wages expressed in purchasing power parities shows that country gaps are smaller, but most of the new Member States remain in the lowest wage group, while Hungary and Poland move to the medium-wage group.

In all countries the level of the minimum wages is set below the poverty line and even fell in the past couple of years – measured as a share of average monthly earnings in services and industry – in Poland, Estonia, the Czech Republic and Bulgaria. Elsewhere the proportion increased (Hungary, Latvia, Lithuania and more strongly in Slovenia) or remained unchanged (Slovakia), see Table 5. In 2011 the minimum wage level varied between 32.5% of the average gross monthly wages in industry, construction and services in the Czech Republic and 49% in Slovenia.

**Table 5. Monthly minimum wage as a proportion of average monthly earnings in industry, construction and services (%)**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Bulgaria	38.8	40.4	41.4	46.6	44.7	42.1	40.4	38.3	35.8	35.3
Czech Republic	36.9	38.1	38.4	39.1	39.7	38.1	35.0	34.0	33.3	32.5
Estonia	30.5	32.4	34.6	33.2	30.5	30.4	34.1	36.2	35.6	33.8
Latvia	37.4	39.9	41.9	36.2	33.3	34.2	37.4	40.9	42.2	45.1
Lithuania	43.7	42.1	45.4	44.9	42.1	38.7	40.1	40.5	42.0	41.1
Hungary	42.1	42.2	41.2	41.3	41.7	39.8	38.8	38.6	38.8	39.1
Poland	33.0	33.9	35.1	33.7	36.1	32.4	35.7	39.7	38.4	38.3
Romania	31.3	37.3	34.4	32.6	30.2	29.1	30.5	33.3	32.3	35.8
Slovenia	45.3	45.8	45.9	46.2	45.2	43.4	43.5	41.1	47.5	49.0
Slovakia	32.4	34.0	34.1	34.4	34.8	.	33.5	36.5	36.6	36.6

*Note: 2002-2008 based on NACE rev. 1, from 2009 NACE rev. 2*

*Source: Eurostat*

According to the latest available data (2007), the proportion of minimum wage earners ranges from 2% to 4% in the Czech Republic, Estonia, Poland and Slovakia. By contrast, the percentage in Lithuania is 13%, in Latvia 9%, Romania 8% (but varies significantly by sector) and in Slovenia 7% (data refer to 2011). The majority of minimum wage earners are employed in the private sector (e.g. in Slovenia about 90%, in Bulgaria 80%), have low skills, are females or work in retail trade, construction and the textiles industry.

Study results examining minimum wage impacts on the labour markets in the new EU Member States are not clear. For example Majchrowska and Zólkiewski (2012) found that the minimum wage had an adverse impact on employment in the period 1999-2010 affecting particularly young workers during the period of substantial increase of the minimum wage between 2005 and 2010. In addition, they found some evidence that a uniform national minimum wage may not be conducive to employment in the poorest regions. By contrast, Jacukowicz (2007), conducting the most comprehensive study on the labour market impact of minimum wages in Poland – based on company surveys – concluded that the minimum wage had no impact on unemployment and that there was no need for regional differentiation of the minimum wage. The evidence from a study on Hungary (Kertesi and Köllö, 2003) suggests that minimum wage hikes in 2000-2002 had a substantial impact on the employment decline in small firms and adversely influenced job loss and job finding probabilities of low-wage workers. Effects appeared to be stronger also in depressed regions ‘where the minimum wage bites deeper into the wage distribution’. As for Estonia, Hinnosaar and Room (2003), analysing the period 1995-2000, found that a rise in minimum wage leads to employment cuts for the group of workers who are directly affected by this change, i.e. those whose wages have to be raised as a consequence.



Lindic (2009), exploring the effects of an extraordinary minimum wage hike in Slovenia in 2008, showed unclear results with a statistically significant negative effect on employment and a statistically insignificant effect on the average wages and average number of hours paid.

## **Conclusions**

Population growth in the NMS has been negative over the past two decades. Over the period 2000-2011 the population in the NMS-10 declined by 5% – almost double the rate witnessed during the 1990s – whereas at the same time the population in the EU-15 increased by nearly 6%.

EU enlargement has been accompanied by increased labour mobility from the new to the old Member States, which helped in some cases to cushion the problem of high unemployment; on the other hand migration has a negative demographic impact on the sending countries' population, as first of all young people are leaving.

Employment and activity rates in the NMS declined significantly up to the early 2000s and started to increase along with strong GDP growth thereafter. Job losses following the outbreak of the economic and financial crisis varied substantially across countries and have not been offset yet. In 2012 employment rates in all NMS were below the pre-crisis level and were similar to the EU-15 average only in the Czech Republic and Estonia.

Overall, the transition period was characterised by job losses in industrial and agricultural employment, whereas new jobs were created in the services sector – first of all in the market services segment. In Romania agriculture is still an important employer, while in the Czech Republic, Slovakia (both attracting huge FDI inflows into the manufacturing sector) and Slovenia industrial employment remained at high levels.

Non-standard types of employment are uncommon in most NMS. Only Poland and Slovenia report a remarkable share of self-employment and a high and growing proportion of temporary employment particularly of the young.

Strong GDP growth starting in the early 2000s helped to reduce unemployment. However, following the outbreak of the economic crisis the labour market situation deteriorated significantly, but hit the NMS differently depending on their economic structure, the extend of GDP contraction and policy responses to the crisis. The incidence of unemployment has been particularly high for young people and the low-skilled.

Employment protection legislation (EPL) has been adjusted to 'European standards' in all NMS in view of their EU entry. In general, studies examining the labour market effects of EPL concluded that EPL are not the only factor in explaining unemployment and if they matter, it has to be in combination with other factors.

In all NMS active and passive labour market policies (the latter mainly in the form of unemployment benefits) were introduced at the beginning of the 1990s. Being relatively generous in the initial years after introduction, unemployment insurance regulations were being tightened in terms of eligibility, duration and coverage in the course of the years and are now altogether less generous than in the EU-15. Spending, both on passive and active labour market policy measures, has been significantly lower than in the EU-15.

During the transition period, union density and consequently the impact of trade unions on wage setting and employment in the new Member States fell dramatically. By contrast, the coverage of workers by collective agreements exceeded union density in all countries where data are available. In Slovenia almost all workers are covered by collective agreements.

All new EU Member States introduced minimum wage regulations at the onset of transition, but with the exception of Slovenia the respective levels are among the lowest compared with the EU-27. Studies on the labour market impact of minimum wages do not show any clear results.

## Bibliography

Arratibel, O., F. Heinz, R. Martin, M. Prybyla, L. Rawdanowicz, R. Serafini and T. Zumer (2007), 'Determinants of Growth in the Central and Eastern European EU Member States – A Production Function Approach', ECB, Occasional Paper Series, No. 61, Frankfurt, April.

Atkinson J. and N. Meager (1986), 'Changing Working Patterns: How Companies Achieve Flexibility to Meet New Needs', Institute of Manpower Studies, National Economic Development Office, London.

Atkinson, J. (1984), 'Flexibility, Uncertainty and Manpower Management', IMS Report No. 89, Institute of Manpower Studies, Brighton.

Astrov, V., V. Gligorov, D. Hanzl-Weiss, M. Holzner, M. Landesmann, O. Pindyuk et al. (2013), Double-dip Recession over, yet no Boom in Sight, wiiw Current Analyses and Forecasts 11, March, Vienna.

Barrell, R., Fitzgerald, J., Riley, R. (2010): EU Enlargement and Migration: Assessing the Macroeconomic Impacts. JCMS: Journal of Common Market Studies, Vol, 48, Issue 2, pp. 373-395.

Bassanini, A. and R. Duval (2006), 'Employment patterns in OECD countries: reassessing the role of policies and institutions', OECD Economics Department Working Paper No. 486.

Bélorgey, N., B. Garbe-Emden, S. Horstmann, A. Kuhn, D. Vogel and P. Stubbs (2012), 'Social Impact of Emigration and Rural-Urban Migration in Central and Eastern Europe, Synthesis Report, Study commissioned by the Directorate-General for Employment, Social Affairs and Inclusion (VT/2010/001).

Blanchard, O., S. Commander and A. Heitmueller (2006), 'Unemployment and Labour Market Institutions: A Progress Report'; <http://www.ebrd.com/country/sector/econo/jrp5.pdf>.

Blanchard, O. and J. Wolfers (1999), The Role of Shocks and Institutions in the Rise of European Unemployment: The aggregate Evidence, NBER Working Paper 7282.

Boeri, T. and P. Garibaldi (2006), 'Are Labour Markets in the New Member States Sufficiently Flexible for EMU?', Journal of Banking and Finance, Vol. 30, pp. 1393-1407.

Bogdanov, G. and R. Rangelova (2012), 'Social Impact of Emigration and Rural-urban Migration in Central and Eastern Europe, Bulgaria, Executive Summary.

Cazes, S. and A. Nesporova (2003), Labour Markets in Transition. Balancing Flexibility and Security in Central and Eastern Europe, ILO, Geneva.

Chung, H. (2007), 'Flexibility for Whom? A New Approach in Examining Labour Market Flexibility Focusing on European Companies', in H. Jørgensen and P. K. Madsen (eds), Flexicurity and Beyond. Finding a New Agenda for the European Social Model, DJØF Publishing, Copenhagen.

Dimitrov, Y. (2012), Youth unemployment in Bulgaria, Friedrich Ebert Stiftung, November.

Ederveen, S. and L. Thissen (2004), 'Can labour market institutions explain unemployment rates in the new EU member states?', CPB Document, No. 59, April.

Eamets, R. and J. Masso (2004), 'Labour Market Flexibility and Employment Protection Regulation in the Baltic States', IZA Discussion Paper Series, No. 1147, Bonn, May.

- Eurofound (2012a), Labour mobility within the EU: The impact of return migration, Dublin.
- Eurofound (2012b), NEETs, Young people not in employment, education or training: Characteristics, costs and policy responses in Europe, Dublin.
- Eurofound (2011), European Company Survey 2009, Part-time work in Europe, Dublin.
- Eurofound (2010), Financing and operating active labour market programmes during the crisis. Dublin.
- Eurofound (2007), Minimum wages in Europe, Background Paper, Dublin.
- European Commission (2012), Employment and Social Developments in Europe 2012, Brussels, November.
- European Commission (2010), Employment in Europe 2010. Brussels.
- European Employment Observatory Review – EEO (2010), Self-Employment in Europe, Brussels, September.
- Fazekas, K. and A. Scharle (eds) (2012), From Pensions to Public Work, Hungarian Employment Policy from 1990-2010, Budapest.
- Fazekas, K. (2005), 'Transition of the Hungarian Labour Market – Age, Skill and Regional Differences', PIE Discussion Paper Series No. 241, January.
- Funk, L. and H. Lesch, 'Minimum wages in Europe', EIRO, <http://www.eurofound.europa.eu/eiro/2005/07/study/tn0507101s.htm>
- Glod, G. A. and E. A. Mosneanu (2009), Characteristics of the labour market in the new EU member states, Financial Studies 1/2009, [ftp://www.ipe.ro/RePEc/vls/vls\\_pdf/vol13i1p100-108.pdf](ftp://www.ipe.ro/RePEc/vls/vls_pdf/vol13i1p100-108.pdf)
- Hahn, F. (1998), 'Labour market flexibility and welfare', Quaderni del Dipartimento di Economia Politica No. 223, Universita degli Studi di Siena.
- Hanzl-Weiss, D. and M. Landesmann (2013), Structural adjustment and unit labour cost developments in Europe's periphery, in: Astrov et al. Double-dip Recession over, yet no Boom in Sight. wiiw Current Analyses and Forecasts No 11, Vienna, March.
- Hanzl-Weiss, D. and H. Vidovic (2010), Working poor in Europe, Eurofound, Dublin.
- Havlik, P. (2008), 'Economic restructuring in the new EU member states and selected newly independent states: effects on growth, employment and productivity', in: Grinberg R., P. Havlik and O. Havrylyshyn (eds.), 'Economic restructuring and integration in Eastern Europe', Nomos Verlag, Baden-Baden, pp. 47-72.
- Hinnosaar, M and T. Rõõm (2003), 'The impact of minimum wage on the labour market in Estonia: An empirical analysis', Working Papers of Eesti Pank, No 8.
- Holland, D., T. Fic, A. Rincon-Aznar, L. Stokes and P. Paluchowski (2011), 'Labour mobility within the EU – The impact of enlargement and the functioning of the transitional agreements'. Final Report.

Study commissioned by the Directorate-General for Employment, Social Affairs and Inclusion, NIESR, London.

Jacukowicz, Z. (2007), *Analiza minimalnego wynagrodzenia za pracę*, (Analysis of minimum remuneration for work), IPISS, Warszawa, seria «Studia i Monografie» (in Polish).

Kertesi, G. and J. Köllö (2003), 'The Employment Effects of Nearly Doubling the Minimum Wage – The Case of Hungary', *Budapest Working Papers on the Labour Market 2003/6*.

Landesmann, M. and H. Vidovic (2006), *Employment Developments in Central and Eastern Europe: Trends and Explanations*, wiiw Research Reports, No 332.

Lazear, E. (1990), 'Job Security Provisions and Employment', *Quarterly Journal of Economics*, Vol. 105.

Lindic, M. (2009), 'The impact of the minimum wage increase on wages, employment and average hours paid. Case study for Slovenia', *Tilburg University*.

Leitner, S. and H. Vidovic (2012), *Labour market developments in the CESEE region during and after the crisis*, in: Gligorov, V., Holzner, M., Landesmann, M., Leitner, S., Pindyuk, O. and H. Vidovic et.al. *New Divide(s) in Europe?*, wiiw Current Analyses and Forecasts No 9, *Economic Prospects for Central, East and Southeast Europe*.

Leschke, J. (2012), *Has the economic crisis contributed to more segmentation in labour market and welfare outcomes?*, *ETUI Working Paper, 2012.02*.

Majchrowska, A. and Z. Zólkiewski (2012), *The impact of minimum wage on employment in Poland*, in: *Investigaciones Regionales*, 24 pp 211-329, *Section Articles*.

Nesporova, A. (1999), 'Employment and Labour Market Policies in Transition Economies', *ILO, Geneva*.

Nickell, S. (1997), 'Unemployment and Labor Market Rigidities: Europe versus North America', *Journal of Economic Perspectives*, Vol. 11, No. 3, pp 55-74.

OECD (2013), *Calculating summary indicators of EPL strictness: methodology*, July.

Podkaminer, L. (2006), *External Liberalisation, Growth and Distribution: The Polish Experience*, in: L. Taylor(ed.), *External Liberalisation in Asia, Post-Socialist Europe, and Brasil*, *Oxford University Press*.

Riboud, M., C. Sánchez-Páramo and C. Silva-Jáuregui (2002), 'Does Eurosclerosis Matter? Institutional Reform and Labor Market Performance in Central and Eastern European Countries in the 1990s', *World Bank Social Protection Discussion Paper No. 0202*, *The World Bank, Washington DC*.

Rycx, F. and S. Kappelmann (2012), *Who earns minimum wages in Europe? New evidence based on household surveys*. *ETUI, Report 124, Brussels*.

Schiff, J., P. Egoumé-Bossogo, M. Ihara, T. Konuki and K. Krajnyák (2006), 'Labour Market Performance in Transition. The Experience of Central and Eastern European Countries', *IMF, Washington DC*.

Standing, G. (1999), *Global Labour Flexibility: Seeking Distributive Justice*, Macmillan Press Ltd., London.

Scarpetta, S. and A. Reutersward (1994), 'Unemployment Benefit Systems and Active Labor Market Policies in Central and Eastern Europe. An Overview', in *Unemployment in Transition Countries Transient or Persistent?*, OECD, Paris.

Stovicek, K. and A. Turrini (2012), *Benchmarking Unemployment Benefit Systems*, Economic Papers 454/May 2012, Directorate-General for Economic and Financial Affairs, Brussels.

Spevacek, A. M. (2009), *Effectiveness of Active Labor Market Programs: A Review of Programs in Central and Eastern Europe and the Commonwealth of Independent States*, USAID Knowledge Services Center.

Svejnar, J. (2002), 'Labor Market Flexibility in Central and East Europe', William Davidson Working Paper No. 496, August.

Teichgraber, M. (2012), *European Labour Force Survey – Annual results 2011*, Statistics in Focus 40/2012.

The World Bank (2012), *World Development Report 2013, Jobs. Overview*, Washington.

Trappmann, V. (2011), 'Precarious work in Poland – a legacy of transition or an effect of European Integration?' *emecon* 1/201, [http://www.emecon.eu/fileadmin/articles/1\\_2011/emecon%201\\_2011Trappmann.pdf](http://www.emecon.eu/fileadmin/articles/1_2011/emecon%201_2011Trappmann.pdf).

Tvrdon, M. and G. Cieslarova, (2012), *Labor Market Policies: Empirical Evidence from the European Union*, in: *European Journal of Economics, Finance and Administrative Sciences Issue 44 (2012)*.

Vagac, L. (2012), *EEO Review: Long-term unemployment, Slovakia*. July.

**Annex Table 1. Employment (in 1000)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
15+, total																							
Bulgaria	4207	3949	3435	3155	3105	3124	3164	3167	3043	3039	2976	2872	2756	2801	2876	2970	2982	3110	3253	3361	3254	3053	2965
Czech Republic	5369	5318	5027	4896	4818	4852	4976	5004	4906	4834	4716	4675	4681	4733	4703	4682	4764	4828	4922	5003	4934	4885	4904
Estonia	825	813	794	749	688	665	623	609	603	609	580	568	576	581	589	595	607	646	655	657	596	571	609
Hungary	4830	4675	4246	3906	3713	3635	3594	3585	3580	3641	3785	3807	3859	3868	3924	3894	3902	3930	3926	3879	3782	3781	3812
Latvia	1332	1332	1321	1224	1139	1024	989	962	980	986	972	942	962	987	1004	1021	1034	1087	1118	1125	983	941	862
Lithuania	1702	1657	1697	1659	1591	1498	1470	1484	1493	1481	1488	1419	1373	1421	1473	1437	1474	1499	1534	1520	1416	1344	1257
Poland	16665	15957	15023	14386	14046	14188	14443	14723	15133	15364	14940	14518	14252	13820	13657	13682	14116	14594	15241	15800	15868	15961	16131
Romania	13587	13455	13389	12982	12490	12428	11784	11642	11200	11097	11022	10898	10808	9768	9368	9283	9115	9291	9353	9369	9244	9239	9138
Slovenia	1111	1068	985	921	888	876	875	871	893	905	889	894	914	922	896	946	949	961	985	996	981	966	936
Slovakia	2693	2644	2314	2339	2278	2254	2309	2276	2224	2201	2128	2083	2116	2111	2168	2149	2215	2302	2358	2434	2366	2318	2351
	52321	50868	48231	46217	44756	44544	44226	44324	44055	44157	43495	42676	42296	41011	40658	40660	41157	42249	43345	44142	43423	43058	42964

Source: Eurostat, wiiw Annual Database, wiiw calculations.

**Annex Table 2. Employment rates by education in %**

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
low education, 15-64, total															
Bulgaria	30.4	.	.	30.4	27.0	27.5	27.4	30.0	29.3	28.9	30.6	32.9	32.3	28.5	26.6
Czech Republic		32.4	30.2	29.1	28.5	26.0	24.3	22.7	21.8	23.2	24.2	24.1	22.8	22.0	21.4
	32.4														
Estonia	34.0	34.6	31.6	28.2	31.3	26.6	29.1	29.0	27.7	32.2	33.1	34.9	27.7	26.2	30.9
Hungary	28.3	27.9	27.5	29.1	29.0	28.6	28.4	27.3	28.0	27.6	27.3	27.2	25.7	25.9	25.7
Latvia	33.3	33.3	31.9	29.2	35.0	32.4	34.3	34.1	33.6	35.6	38.6	37.1	29.4	28.4	29.0
Lithuania	32.6	32.6	30.4	25.5	25.0	26.2	28.4	27.8	25.2	24.5	25.9	20.7	17.7	14.4	15.3
Poland	33.9	32.6	30.0	28.1	27.4	25.0	23.9	22.7	23.0	23.3	24.9	25.5	24.6	23.6	23.5
Romania	56.1	55.1	54.1	53.9	51.7	43.8	43.8	40.3	39.6	39.6	40.3	41.0	42.0	43.0	40.5
Slovenia	42.5	43.2	39.4	39.7	42.0	41.8	38.2	41.2	42.0	41.9	43.1	42.9	41.1	39.7	35.3
Slovakia	23.2	23.2	20.4	17.5	17.2	15.5	15.1	13.9	13.3	14.5	14.7	15.9	14.3	14.3	14.9
EU15	48.2	48.1	51.0	51.7	50.7	50.8	51.1	50.7	51.0	51.4	51.9	51.1	48.9	47.8	48.3
European Union (27 countries)	48.8	.	.	48.8	47.9	47.4	47.6	47.1	47.4	48.0	48.6	48.1	46.1	45.1	45.4
medium education, 15-64, total															
Bulgaria	59.3	57.9	58.5	59.3	57.9	58.5	62.6	64.2	65.0	68.1	70.6	72.7	70.0	66.0	64.5
Czech Republic	75.4	75.4	73.1	72.8	73.0	73.1	72.4	71.4	71.8	71.9	72.6	73.1	71.3	70.4	71.0
Estonia	68.6	70.7	66.9	65.2	66.3	67.4	67.3	68.0	68.5	72.8	74.4	75.4	66.3	63.3	68.6

Hungary	65.6	64.4	64.5	66.7	66.8	66.6	66.6	65.7	64.9	65.1	64.8	63.3	61.6	61.1	61.1
Latvia	64.9	64.9	64.1	63.1	64.3	67.3	69.4	68.2	69.3	72.7	74.3	74.5	64.6	61.5	62.4
Lithuania	62.5	62.5	64.1	62.4	63.3	68.0	69.0	66.1	67.2	68.0	68.6	68.1	61.9	57.6	59.9
Poland	66.7	67.6	65.9	62.3	60.1	57.8	56.7	56.2	56.7	58.3	61.0	63.3	62.7	62.0	62.2
Romania	71.6	70.1	69.3	68.2	67.7	64.3	65.1	66.2	63.8	64.9	63.9	63.5	62.2	62.2	62.3
Slovenia	70.8	70.8	70.3	69.5	69.3	69.5	67.5	70.7	69.8	69.7	70.8	72.0	70.0	68.6	66.4
Slovakia	71.1	71.1	67.4	65.2	65.1	65.0	66.7	66.2	66.4	67.5	69.0	70.1	67.1	65.1	65.5
European Union (27 countries)	67.1	64.9	68.7	69.6	70.1	70.2	70.0	69.9	70.5	71.4	72.1	72.2	70.7	70.3	70.3
high education, 15-64, total	68.3	68.3	68.0	68.3	68.3	68.0	67.9	67.9	68.2	69.2	70.1	70.5	68.9	68.4	68.4
Bulgaria	77.4	.	.	77.4	75.2	75.7	77.3	79.2	80.3	82.1	84.6	86.1	85.5	83.3	82.1
Czech Republic	88.1	88.1	86.6	85.1	86.8	86.3	85.7	85.6	84.6	83.9	84.0	83.2	82.0	81.0	81.0
Estonia	80.5	82.5	80.2	82.7	77.3	80.1	79.8	78.9	83.9	86.9	86.8	85.2	82.1	78.5	79.1
Hungary	81.5	80.5	81.6	82.0	82.4	81.8	82.4	82.2	82.5	81.2	80.0	79.5	78.1	77.8	78.4
Latvia	81.0	81.0	79.6	79.6	82.5	80.7	80.1	83.7	84.6	86.9	86.9	86.9	82.3	80.6	83.4
Lithuania	80.5	80.5	81.4	79.3	84.0	82.3	84.6	84.1	86.3	87.8	88.1	87.7	85.9	85.4	87.5
Poland	84.3	87.5	86.4	83.8	83.0	82.4	81.4	80.2	81.1	81.7	82.8	83.7	83.7	82.7	82.4
Romania	84.8	87.2	86.3	83.9	82.6	82.0	81.5	85.2	84.0	86.1	85.8	85.7	84.1	82.4	82.1
Slovenia	84.3	83.5	84.8	85.8	85.7	86.4	85.2	86.8	86.6	87.8	87.5	87.5	88.1	86.6	85.5
Slovakia	89.7	89.7	87.4	84.9	85.8	85.8	86.6	82.3	83.2	83.9	83.1	83.8	80.3	78.0	76.8
European Union (27 countries)	81.1	78.7	81.8	82.4	82.9	82.7	82.6	82.5	82.5	83.0	83.6	83.6	82.7	82.3	82.1
European Union (27 countries)	82.4	.	.	82.4	82.8	82.6	82.5	82.5	82.5	83.1	83.7	83.7	82.8	82.3	82.0

Note: Data 1997: LV, LT, SK 1998; BG, EU-27 2000.

Source: Eurostat



**Annex Table 3. Part-time workers in % of total employment**

		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Total		15.9	15.9	15.9	16.2	16.2	16.2	16.6	17.2	17.8	18.1	18.2	18.2	18.8	19.2	19.5	
European countries)	Union	(27	15.9	15.9	16.2	16.2	16.2	16.6	17.2	17.8	18.1	18.2	18.2	18.8	19.2	19.5	
European countries)	Union	(15	16.7	17.3	17.6	17.7	17.9	18.1	18.6	19.4	20.3	20.7	20.9	21.0	21.6	22.1	22.5
Bulgaria	:	:	:	:	:	3.2	2.5	2.3	2.4	2.1	2.0	1.7	2.3	2.3	2.4	2.4	
Czech Republic	:	5.7	5.6	5.3	4.9	4.9	5.0	4.9	4.9	5.0	5.0	4.9	4.9	5.5	5.9	5.5	
Estonia	:	8.6	8.1	8.1	8.2	7.7	8.5	8.0	7.8	7.8	8.2	7.2	10.5	11.0	10.6		
Latvia	:	12.8	12.1	11.3	10.3	9.7	10.3	10.4	8.3	6.5	6.4	6.3	8.9	9.7	9.2		
Lithuania	:	:	:	10.2	9.9	10.8	9.6	8.4	7.1	9.9	8.6	6.7	8.3	8.1	8.9		
Hungary		3.7	3.8	3.8	3.5	3.6	3.6	4.4	4.7	4.1	4.0	4.1	4.6	5.6	5.8	6.8	
Poland		10.6	10.4	10.5	10.5	10.3	10.8	10.5	10.8	10.8	9.8	9.2	8.5	8.4	8.3	8.0	
Romania		14.9	15.8	15.9	16.5	16.6	11.8	11.5	10.6	10.2	9.7	9.7	9.9	9.8	11.0	10.5	
Slovenia	:	:	6.1	6.5	6.1	6.1	6.2	9.3	9.0	9.2	9.3	9.0	10.6	11.4	10.4		
Slovakia	:	2.3	2.1	2.1	2.3	1.9	2.4	2.7	2.5	2.8	2.6	2.7	3.6	3.9	4.1		
Males																	
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
European countries)	Union	(27	6.2	6.3	6.4	6.5	6.6	6.6	6.7	7.1	7.4	7.7	7.8	8.3	8.7	9.0	
European countries)	Union	(15	5.7	6.0	6.1	6.1	6.2	6.6	6.8	7.2	7.7	8.1	8.2	8.5	8.9	9.4	9.8
Bulgaria	:	:	:	:	2.9	2.1	1.9	2.1	1.7	1.5	1.3	2.0	2.0	2.2	2.2		
Czech Republic	:	2.6	2.4	2.2	2.2	2.2	2.3	2.3	2.1	2.2	2.3	2.2	2.8	2.9	2.5		
Estonia	:	5.9	5.9	5.3	5.1	4.8	5.4	5.4	4.9	4.3	4.3	4.1	7.0	7.1	5.6		
Latvia	:	12.5	11.0	9.7	8.6	7.6	7.9	7.7	6.3	4.7	4.9	4.5	7.5	7.8	7.3		
Lithuania	:	:	:	9.2	8.4	9.4	7.4	6.5	5.1	7.9	7.0	4.9	7.0	6.7	7.1		
Hungary		2.0	2.3	2.4	2.0	2.2	2.3	2.8	3.2	2.7	2.6	2.8	3.3	3.9	3.9	4.7	
Poland		8.3	8.1	8.0	8.2	8.3	8.5	8.2	8.2	8.0	7.1	6.6	5.9	5.8	5.7	5.5	
Romania		12.6	13.5	13.8	14.6	14.9	10.9	10.9	10.2	10.0	9.5	9.2	9.1	9.1	10.6	9.6	
Slovenia	:	:	5.2	5.3	5.0	4.9	5.2	7.9	7.2	7.2	7.7	7.1	8.4	8.6	7.9		
Slovakia	:	1.1	1.2	1.1	1.2	1.1	1.3	1.4	1.3	1.3	1.1	1.4	2.7	2.8	2.8		
Females																	
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
European countries)	Union	(27	29.2	28.7	28.5	28.9	28.6	28.5	29.1	30.1	30.9	31.2	31.2	31.1	31.5	31.9	32.1
European countries)	Union	(15	32.2	33.0	33.2	33.2	33.3	33.3	33.9	35.1	36.2	36.6	36.7	36.6	37.0	37.4	37.6
Bulgaria	:	:	:	:	3.6	3.0	2.6	2.7	2.5	2.5	2.1	2.7	2.7	2.6	2.6		
Czech Republic	:	9.9	9.9	9.3	8.5	8.3	8.5	8.3	8.6	8.7	8.5	8.5	9.2	9.9	9.4		
Estonia	:	11.4	10.4	10.9	11.3	10.7	11.8	10.6	10.6	11.3	12.1	10.4	13.8	14.5	15.4		
Latvia	:	13.1	13.2	12.8	11.9	12.0	12.7	13.2	10.4	8.3	8.0	8.1	10.2	11.4	10.9		
Lithuania	:	:	:	11.1	11.4	12.3	11.8	10.5	9.1	12.0	10.2	8.6	9.5	9.3	10.5		
Hungary		5.6	5.5	5.5	5.2	5.2	5.1	6.2	6.3	5.8	5.6	5.8	6.2	7.5	8.0	9.2	
Poland		13.6	13.2	13.6	13.4	12.7	13.4	13.2	14.0	14.3	13.0	12.5	11.7	11.6	11.5	11.1	
Romania		17.5	18.3	18.2	18.6	18.4	13.0	12.2	11.2	10.5	9.8	10.4	10.8	10.6	11.4	11.5	
Slovenia	:	:	7.2	7.8	7.4	7.5	7.5	11.0	11.1	11.6	11.3	11.4	13.2	14.7	13.3		
Slovakia	:	3.8	3.2	3.1	3.5	2.7	3.8	4.2	4.1	4.7	4.5	4.2	4.7	5.4	5.9		

Source: Eurostat