Employment and Labor Market Flexibility in the New EU Member States

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On May 1, 2004, ten new Member States (NMS) entered the European Union (EU). Since the NMS are still in the midst of a transition and catching-up process, not only will they face asymmetric shocks, but these shocks will be largely uncorrelated with those prevailing in EMU. Upon EU accession the NMS also entered the monetary integration process, which ends with the adoption of the euro. This implies that the NMS will relinquish autonomy over monetary policy and exercise restrictions on fiscal policy. According to optimum currency area theory, in the absence of a national monetary policy flexible labor markets become central to accommodating idiosyncratic shocks. This paper takes a look at the labor markets in the NMS, focusing especially on labor market flexibility. The analysis show higher labor cost flexibility in the NMS than in the EU in general. Supply-side flexibility, notably occupational and regional mobility, seems to be lower. However, overall flexibility seems to be small or even insignificant. Thus, the paper suggests that the NMS have to make further efforts to enhance labor market flexibility, especially improving regional mobility and applying active labor market policies. With a view to further monetary integration, early participation in the euro area may not be the optimal choice for some of the NMS.

1 Introduction

On May 1, 2004, ten new Member States entered the European Union (EU): eight Central and Eastern European countries (CEECs) and the two Mediterranean islands Cyprus and Malta. From the very first day of accession, the monetary integration process toward the adoption of the euro will take place in three subsequent steps. In a first step, upon entering the European Union, the new Member States become members of Economic and Monetary Union (EMU) as "members with a derogation." This means that after joining the EU, the new Member States (NMS) will not take part in EMU to the full extent, as they cannot immediately join the euro area. Nonetheless, they are required to observe a number of obligations embodied in the EMU architecture. Thus, the NMS have to bring their economic and monetary policies in line with the overall goals of EMU, and they are obliged to pursue the adoption of the euro as a goal to which their policies have to be oriented. Moreover, they must treat their exchange rate policies as a matter of common interest, as the functioning of the single market must not be weakened by real exchange rate misalignments or excessive nominal exchange rate fluctuations. The second step is participation in the exchange rate mechanism, ERM II. During this stage, the NMS have to fulfill, inter alia, the convergence criterion on the exchange rate so that they will be able to adopt the euro and participate in the euro area in a third step marking the final stage of monetary integration.

The degree of freedom for national monetary policymaking will decrease step by step and will be fully relinquished upon entry into the third stage of monetary integration. At the same time the NMS still have to complete their transition and long-term catching-up process and therefore may face asymmetric shocks (see Égert et al., 2003). Empirical evidence (Horvath, 2002) suggests substantial asymmetries of shocks between the EU and the NMS. Participation in the euro area entails, in general, certain costs and risks once countries can no longer use an independent monetary policy to accommodate adverse (asymmetric exogenous) shocks. Against this background and in the absence of national monetary policy standards, the optimum currency area theory (Mundell, 1961) outlines the importance of flexible labor and goods markets

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that a country requires to adjust to idiosyncratic shocks. Since the degree of freedom for independent monetary policymaking is affected immediately upon accession, the subject of flexible labor markets is of vital interest.

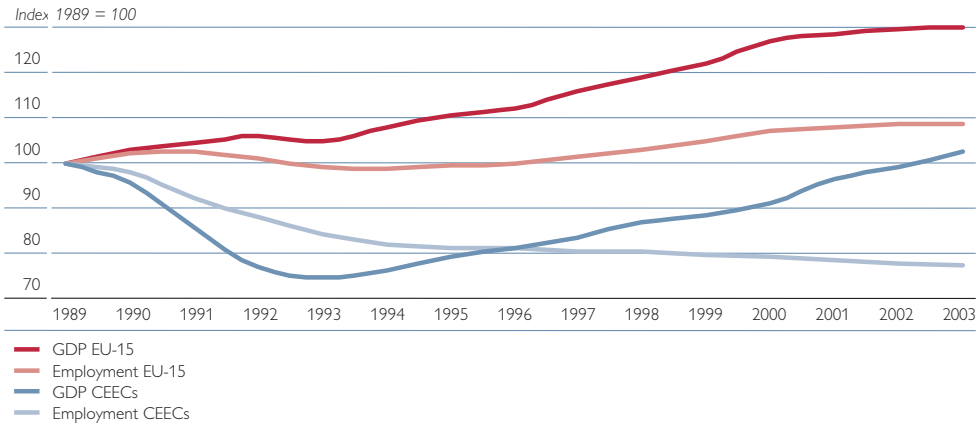
This paper therefore takes a look at labor market developments and labor market flexibility in the NMS, with a special focus on the countries in Central Europe.[2] The labor market developments and situations of the NMS are compared with those of the other Member States.

2 Labor Market Developments

The early years of transition were characterized by declining real output attributable to several factors, such as the tremendous and sudden slump in trade with Russia, inherited economic structures typical of a planned economy, mass privatization and the like. As GDP declined, so did employment. It followed that in many countries unemployment quickly rose to double-digit levels. In 1993–94 GDP started to pick up when growth turned positive. With some exceptions, the NMS have seen a period of high GDP growth since then. However, despite strong GDP growth, *employment* has continued to decline on average in the whole region (see chart 1), reflecting high productivity growth partly stemming from huge inflows of foreign direct investment (FDI).[3]

Chart 1

GDP Growth and Employment in the CEECs[1]



Source: WSI, author's calculations.
[1] CEEs: The eight Central and Eastern European new Member States.

Today's average employment rate of 55.8% in the NMS is well below the euro area average of 62.4%. But employment rates among the NMS differ markedly. In the Czech Republic and in Slovenia the employment rate is above euro area average at 64.7% and 62.6%, respectively. Hungary and the Slovak Republic, by contrast, have employment rates of around 55%, whereas in Poland only around half of the working age population is employed (see chart 2).

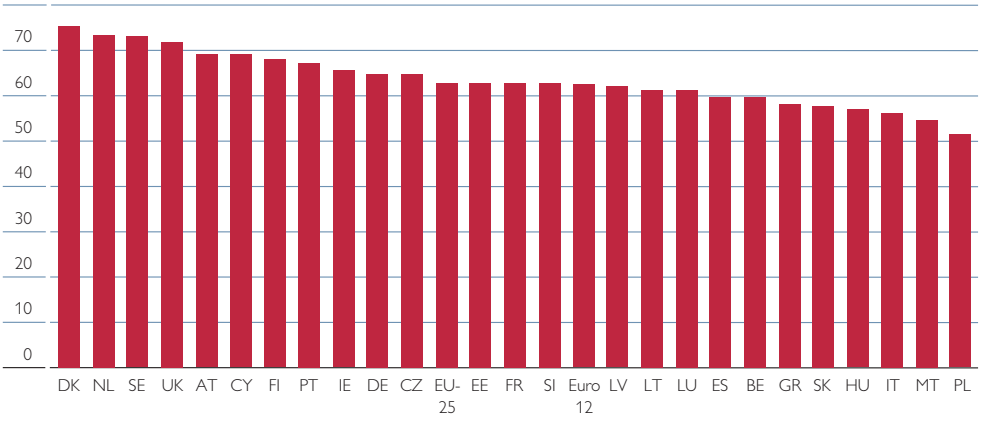
[2] *The Czech Republic, Hungary, the Slovak Republic, Slovenia and Poland.*

[3] *High inflows of foreign direct investment mainly from Germany, Austria, the Netherlands and France as well as new private ownership introduced new technologies aimed at raising labor productivity and hence contributed to decreasing overall employment figures. Nonetheless, FDI also created new and more competitive jobs in many industries. Most of the FDI was directed toward manufacturing (almost 40% of all FDI in the NMS), followed by foreign investments in the banking sector (18%), trade and retail (14%), transport and communications (10%) and real estate (9%) (WIFO database, OeNB).*

Among the NMS only Hungary has posted positive employment growth in the last years (on average). But the Slovak Republic also showed strong employment growth in 2003. Overall, there are signs that the contraction of employment has bottomed out and that in the near future we may see positive employment growth in the NMS on average. It has to be noted that much of the decrease in overall employment is attributable to the development in Poland. Looking at the other NMS reveals that employment in the NMS-4 (the Czech Republic, Hungary, the Slovak Republic and Slovenia) has started to increase slightly since 2000, while at the same time it has continued to fall significantly in Poland, thus (due to the size of Poland) leading to an overall decline in employment in the NMS-5. Nonetheless, 2003 was marked by a relatively stable employment development. The decline in 2003 was only marginal in Poland, the Czech Republic and Slovenia and was almost offset by increases in Hungary and the Slovak Republic.

Chart 2

Employment Rates in the EU-25 (2003)



Source: Eurostat.
Note: (BE) Belgium, (DE) Germany, (ES) Spain, (FR) France, (IE) Irland, (IT) Italy, (NL) Netherlands, (AT) Austria, (FI) Finland, (SE) Sweden, (CZ) Czech Republic, (HU) Hungary, (SK) Slovakia, (SI) Slovenia, (PL) Poland, (EE) Estonia, (LT) Lithuania, (LV) Latvia.

It is important to stress that the difference in employment rates between the NMS and the European Union as a whole is less pronounced when considering employment rates in full-time equivalent (FTE) terms. Since people in the NMS work longer hours on average than people in the other EU Member States and since there is very little part-time employment in the NMS, the FTE employment rate in the European Union is only about 58.7% compared to 55% in the NMS.

Part-time employment arrangements are not yet very common in the NMS. Part-time employment in the Slovak Republic is only about 2.4%. In the Czech Republic, Slovenia and Hungary this rate is around 5%, and in Poland every tenth person is working part-time. Conversely, in the euro area 17% of total employment is on a part-time basis. And while part-time work increased by 13% in the euro area between 1997 and 2003, the average growth rate in part-time employment in the NMS has been slightly negative since 1997.

Self-employment is significantly higher in the NMS on average than in the euro area. However, the development of self-employment varies across the

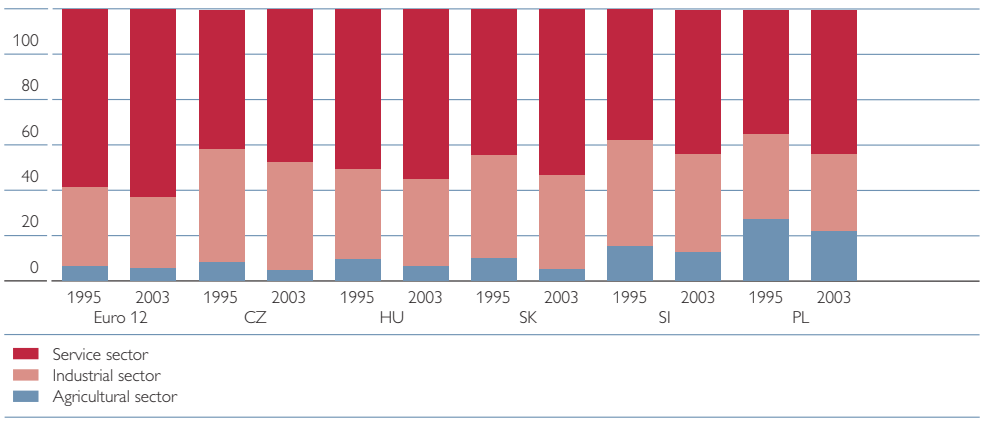
NMS. In the Slovak Republic and in the Czech Republic self-employment is increasing continuously and markedly both in absolute terms and in percent of total employment. In 2003, 10.2% of the workforce in the Slovak Republic and 17.1% in the Czech Republic were self-employed. By contrast, in Slovenia (16.9%) and Hungary (13.2%) self-employment is decreasing both in percent of total employment and in absolute terms. In Poland, however, although growth in self-employment is negative in line with the general negative trend in the labor market, the share of self-employment in total employment has remained stable over the past years and has hovered around 27.5%, which is by far the highest rate within the EU-25. This high self-employment rate is mainly due to the high share of agricultural employment.

Since the beginning of the transition process the NMS have seen a pronounced shift in the *sectoral composition of employment*. The share of employment in the industrial and in particular in the agricultural sector declined sharply and has thus led to increasing shares of employment in the service sector. But a closer look at how the sectoral shifts took place in the various NMS provides some interesting insights. The ways in which these sectoral shifts were achieved vary significantly across the NMS. Hungary, for instance, has managed to create more than 300,000 new jobs in the service sector since 1997, while the losses in the other two sectors totaled no more than 65,000 jobs. Thus employment rose on balance. The development in Poland is completely different. Poland has faced job losses in all three sectors. The share of service-sector employment increased from 47.5% in 1997 to 53% in 2003 only because job losses in the other two sectors were accordingly higher. In Slovenia the number of jobs lost in the primary and secondary sectors equals the number of new jobs in the service sector. The Czech Republic and even more so the Slovak Republic succeeded in creating new employment in the tertiary sector but faced higher losses in industry and agriculture, which led to a decline in employment and further boosted the share of the service sector in the overall composition.

For the NMS as a whole it can be concluded that the notable increase in service employment could not offset the sharp decline in employment in the industrial and agricultural sectors.

Chart 3

Sectoral Composition of Employment from 1995 to 2003



Source: Eurostat, author's calculations.
Note: Country abbreviations are listed in the note to chart 2.

Although there has been a rather pronounced shift in the sectoral composition of employment, the employment share of the service sectors in the NMS is still far below the euro area average. In terms of employment and compared to Western European standards, enterprise-related services, social and financial services, and tourism are still very underdeveloped.

On the other hand, the share in industrial employment is still significantly higher in the NMS than in the euro area. In the primary sector the employment share in the Slovak Republic, Hungary and the Czech Republic has already declined nearly to the euro area level, whereas in Slovenia it still stands at 10.7% and in Poland even at 18.4%.

All in all, substantial economic reallocation within the sectors has yet to come about hand in hand with further pronounced shifts in the sectoral composition of employment and possibly short- and medium-term negative effects on employment growth and unemployment.

It is a matter of concern that the job opportunities for *young people* are scarce throughout the NMS and are becoming even scarcer. In recent years employment of persons aged 15 to 24 has declined in absolute terms and as a percentage of the respective population. In Hungary, where overall employment had been increasing over the past years, youth employment levels have declined. On average the youth employment rate in the NMS is about 24% compared to the euro area, where the rate is nearly 38%. This would be less of a problem if instead educational attainment were high. But educational attainment of the respective age group in the NMS is on average even lower than in the euro area (European Commission, 2002).

In most NMS the situation of *people aged 55 and older* is not much better, although – with the exception of Poland – the employment rate of this age group is continuously increasing in the NMS. However, employment rate figures in the NMS for this age cohort exhibit a wide spread ranging from 23.5% in Slovenia to 42% in the Czech Republic. By comparison, the average employment rate of this age group in the euro area is also continuously increasing and currently stands at about 38%.

Looking at employment data broken down by *gender* reveals that in principle, conditions in the NMS are similar to those in the old Member States, that is women face more disadvantages and discrimination on the labor market than men, higher unemployment, youth unemployment and long-term unemployment rates. At the same time, relatively fewer women participate in the labor market, although the differences in employment rates between women and men are less pronounced in the NMS than in the rest of the EU. Finally, more women work part-time than men in both the NMS and the EU, though in the NMS part-time work is more equally distributed between sexes. In the NMS three out of five part-time jobs are held by women, whereas in the EU the ratio is four out of five.

The decline in employment resulted in a rise in unemployment and at the same time in a decrease in labor market participation, thus leading to a drop in the activity rate. The latter smoothed unemployment levels, increasing the problem of hidden unemployment. However, the activity rates in some NMS have already reached a kind of threshold level (Schuettpelz, 2003), so that a further reduction in employment would result in higher unemployment. The level

and development of *unemployment* (based on labor force surveys) vary substantially across the NMS, ranging from 5.8% in Hungary to 19.2% in Poland, where unemployment almost doubled from 1997. As chart 4 shows, unemployment in the Czech Republic and Slovenia is also below the EU and euro area average.

Much of the unemployment is *long-term unemployment,* which accounts for more than half of total unemployment. In the Slovak Republic long-term unemployment even comes to about 65%. High long-term unemployment in the NMS indicates a higher and stronger persistence of unemployment than in the rest of the EU.

Another problem is *youth unemployment* among people aged 15 to 24, which averages nearly 32% in the NMS as a whole. This is double the euro area average. However, this high youth unemployment is only attributable to unfavorable figures in Poland and in the Slovak Republic, where the youth unemployment rates are 41% and 33%, respectively. In the other NMS, youth unemployment rates are clearly below the euro area average.

Chart 4

Unemployment, Long-Term Unemployment and Youth Unemployment in 2003

Source: Eurostat.
Note: Country abbreviations are listed in the note to chart 2.

Unemployment data also vary considerably across *regions* (see chart 5). The regional mismatch is high in some of the NMS, such as in the Czech Republic and the Slovak Republic,[4] whereas in Poland, high unemployment seems to be more equally distributed (when the difference is measured in percent).

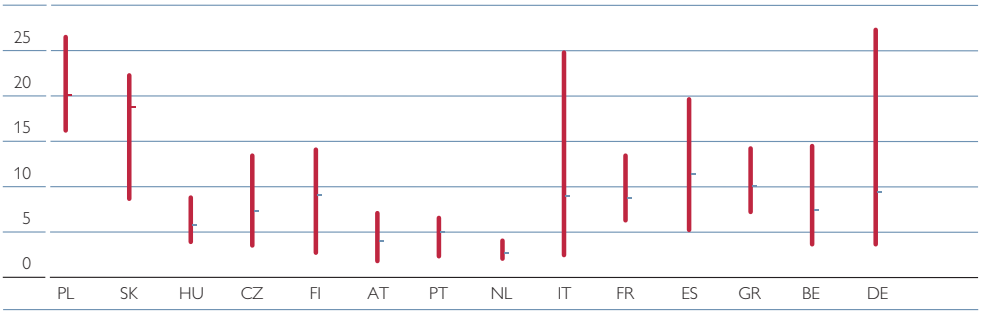
Large regional disparities are reflected by the regional distribution of FDI, large income differentials and labor market situations. Economic activities are concentrated in the western parts of each country, reflecting the distribution of economic power across Europe. The peripheral and rural regions exhibit deficiencies in infrastructure (traffic, education) and a lack of innovation networks (Schuettpelz, 2003), which lowers the potential for economic modern-

[4] *The high regional differences in unemployment in the Slovak Republic (and to a certain extent in the Czech Republic) may be explained partly by discrimination against the Roma (see Monitoring Reports by the European Commission of November 2003), who represent up to 10% of the Slovak population. The Roma live mainly in the poorest rural regions and are practically excluded from the labor market in many places (see press release of March 2003, European Roma Information Office).*

ization in these regions. It may be assumed that the regional disparities will increase (European Commission, 2002), since further industrial restructuring and reallocation will boost unemployment in rural and traditional industrial areas and at the same time increase employment in larger cities with a fast-developing service sector (Schuettpelz, 2003).

Chart 5

Regional Unemployment Spread in 2002



Source: Eurostat.
Note: Country abbreviations are listed in the note to chart 2.

To sum it up, the NMS have observed tremendous development on the labor markets, from full employment before 1989 to partial mass unemployment and continuously declining employment figures. Nonetheless, in some NMS employment growth has gained some momentum and is now on the threshold of turning positive. Looking at unemployment data reveals a diverse picture among the NMS. While unemployment is extremely high in Poland and the Slovak Republic (and to some extent in the Baltic countries), unemployment rates in the other NMS are at or below the EU average. Looking at employment rates, with the exception of the Czech Republic and Slovenia, employment rates in the NMS are below 60% and in Poland come to only 51%. The difference is less pronounced when comparing FTE employment rates between the NMS and the European Union. However, in the NMS significantly fewer people are involved in the production process, with all the negative consequences this has for society and income distribution.

Future restructuring of the labor market following structural changes in the NMS may even worsen this situation. Since the NMS still have to complete their transition process, the structural changes will have a greater impact than in the rest of the European Union. Structural change will lead to further shifts in the sectoral composition, both between and across sectors. In addition, regional disparities are likely to increase. Both structural change and labor market restructuring require a flexible workforce in terms of occupational and regional mobility to prevent negative effects on the labor market, i.e. an increase in unemployment.

3 Labor Market Flexibility

In line with the *acquis communautaire*, the NMS are obliged to strive for euro area membership, which in most of the NMS could occur between 2006 and 2010. As was the case for the current euro area members, the adoption of the euro in the NMS and the relinquishment of autonomy over independent

monetary and exchange rate policy will put much pressure on the labor markets to adapt to economic developments. In the absence of price and wage flexibility, and as a result of the lack of occupational and regional mobility, the likelihood increases that such shocks will affect the labor market. The accession to ERM II will already enhance the importance of labor market adjustability, meaning that the labor market will have to be able to absorb possible shocks or adapt to major economic changes. Although the bandwidths are relatively broad so that major repercussions on the labor markets are not to be expected (Huber et al., 2002), compliance with the Maastricht criteria is certainly more of an issue for labor market flexibility, especially compliance with the exchange rate criterion. According to the optimum currency area theory, the more flexible wages are and the more occupational and regional mobility production factors exhibit, the lower the need for exchange rate adjustments is.

How efficiently labor markets facilitate the adjustment to asymmetric shocks depends on the specific labor market structures. In order to operate as a "shock absorber," the labor market should be sufficiently flexible. This indeed represents the core of a problem, since "sufficiently flexible" cannot be defined clearly. According to Monastiriotis (2003), if labor market flexibility is defined as the extent to which profit- and utility-maximizing labor market forces determine labor market outcomes, it follows that in a totally flexible labor market there are no institutional, political, cultural or other impediments. In reality, however, such impediments do of course exist. The most prominent ones are labor market regulations. The purpose of such regulations is to organize the operation of the labor market and to establish commonly accepted rules from which both employees and employers should benefit. In addition, labor market regulations aim at neutralizing the impact of other sources of labor market rigidity, e.g. the existence of market power exercised by firms or some types of labor monopoly power (e.g. an insider-outsider situation), which produces inflexibilities and suboptimal outcomes for employment, output, prices and wages. Therefore, one cannot simply equate labor market deregulation with labor market flexibility. Deregulation is neither a sufficient nor a necessary condition for flexibility (Monastiriotis, 2003). Many other measures supporting labor market flexibility come to mind, such as education and training or the promotion of regional mobility.

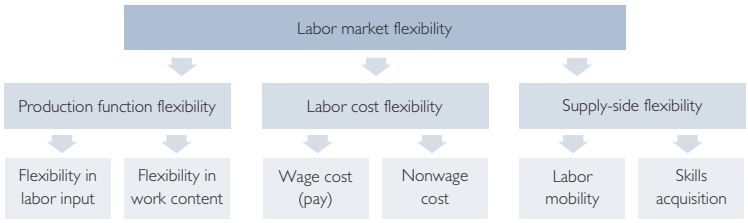
The degree of labor market flexibility is particularly difficult to assess or quantify. Neither a generally accepted taxonomy for classifying economies into different (labor market-specific) institutional groupings nor a scale to measure the distance between these institutional settings is available. However, as Riboud et al. (2002) pointed out, "it is nevertheless possible to take into consideration a set of indicators and classify countries on the basis of existing knowledge of the policy relevance of these indicators." In this context, several indicators may be useful, such as the degree of labor turnover, the strictness of employment protection legislation, unemployment benefit replacement ratios, the centralization of wage bargaining, the level of minimum wages, the flexibility of nominal wages, union density or the coverage of collective agreements.

Illustration 1 represents a typology of labor market flexibility indicators. Here, labor market flexibility is composed of three subtypes of flexibility: production function, labor cost and supply-side flexibility. In this model, produc-

tion function flexibility splits up on the one hand into flexibility in labor input, e.g. flexible working hours, shift work, the use of overtime, employment protection, and on the other hand into flexibility in work content, which relates to multitasking or broadened job definitions. The second group is broken down into wage cost flexibility and nonwage cost flexibility. Finally, the third group is divided into labor mobility (occupational and regional mobility) and skills acquisition, which is the stock of human capital and the flexibility in worker training, including e.g. active labor market policies. The types of labor market flexibility considered here and their arrangements and composition are not exclusive. Rather, significant overlapping exists among these various types. However, these types and groupings serve to facilitate the organization of the analysis.

Illustration 1

Types of Labor Market Flexibility



Source: Monastiriotis (2003).

The literature describes indices that have been developed to measure the various types of flexibility indices. The following example shows different intermediate indices which sum up to specific aggregate indices according to the types of labor market flexibility shown in illustration 1. The intermediate indices themselves are a composite of various basic indices as listed below. The composition of each index is not exclusive, and overlapping cannot be avoided, e.g. between union flexibility and wage bargaining structures.

Table 1

Labor Market Flexibility Indices

Aggregate index	Intermediate index	Basic indices (examples)
Production function flexibility	internal numerical	work time, shift work
	external numerical	home working, part-time workers, employment protection
	internal functional	labor standards, multitasking
Labor cost flexibility	unemployment flexibility	replacement rate, minimum wage
	wage flexibility	wage bargaining, wage elasticity
	union flexibility	union density, union coverage
Supply-side flexibility	labor mobility	regional and occupational mobility
	skills-input flexibility	training, educational attainment

Source: Monastiriotis (2003).

The further analysis concentrates on labor cost flexibility, for which an aggregate index is developed. Following a valuation of labor cost flexibility, a brief look is taken at labor mobility, a supply-side indicator of flexibility. In addition, employment protection legislation will be examined to capture some aspects of production function flexibility.

3.1 Labor Cost Flexibility

The following analysis compares labor cost flexibility in the NMS and in selected EU Member States and evaluates the result. For this purpose, three intermediate indices are used, i.e. unemployment flexibility, wage flexibility and union flexibility.

Unemployment flexibility is measured by unemployment benefit replacement ratios, minimum wage ratios and the duration of benefits. Wage flexibility is estimated based on the structure of wage bargaining and – most commonly – on wage elasticity, measuring the responsiveness of wages to changes in unemployment. Finally, union density and union coverage are taken into consideration to assess union flexibility.

3.1.1 Unemployment Flexibility

Unemployment flexibility will be discussed as a composite of benefit replacement ratios calculated for different durations and some kind of minimum wage ratio. Unemployment benefit replacement ratios are expressed as the ratio of the net income (under national social and unemployment compensation schemes) available to individuals of working age (15 to 64) who are out of work with respect to the net income they would get if they were working.[5]

If unemployment benefits are too high, unemployed persons have few incentives to reenter employment. This may lead to what may be called an unemployment trap (Mira d'Ercole and Salvani, 2003), which occurs when workers' skills decline in lockstep with the duration of their unemployment (hysteresis), so that the potential earnings that an unemployed person can realistically hope to achieve when taking a new job decrease concurrently. Looking at replacement ratios across the European Union and in particular in the NMS (see chart 6), one can see that these ratios vary significantly across countries. At 47%, Poland has the lowest replacement ratio of all Member States. Hungary also belongs to the group of countries (including Italy, the U.K. and Ireland) that provide relatively low unemployment benefits. The Czech Republic has unemployment benefit ratios similar to those of Austria, Germany and France. Conversely, the Slovak Republic has replacement ratios of 80% and thus ranks among high-ratio countries including the Scandinavian countries, Luxembourg and the Netherlands.

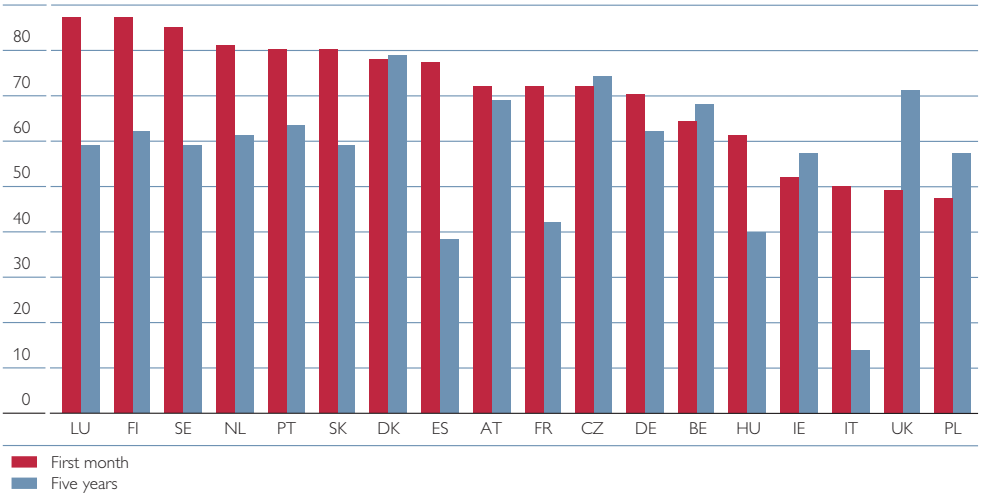
However, the picture changes if one looks at long-term replacement ratios. Here, Denmark, the Czech Republic and, somewhat surprisingly, the U.K. have the highest ratios, followed by Austria and Belgium. Hungary and to a lesser extent Poland find themselves at the lower end of the scale together with Italy, Spain and France. Nonetheless, these results are largely in line with the unemployment benefit duration index developed by Nickell at al. (2002)[6] for some OECD countries, where Denmark and the U.K. have the highest indices, followed by Belgium, Ireland, Germany and Austria.

[5] *The replacement rates are calculated for a 40-year-old unemployed worker (for the first month and for five years) who has made contributions for 22 years and who has two children and a nonworking spouse who is not receiving unemployment benefits (OECD, 2003).*

[6] *Nickell, Nunziata and Ochel (2002) calculate the index based on the following ratio: [0.6 (replacement ratio in the 2nd and 3rd year of a spell averaged over three family types) + 0.4 (replacement ratio in the 4th and 5th year of a spell)] / (replacement ratio in the 1st year of a spell).*

Chart 6

Short- and Long-Term Replacement Ratios in 2002



Source: OECD.
Note: Country abbreviations are listed in the note to chart 2.

It may be concluded that Poland and Hungary are clearly quite restrictive with unemployment benefits and replacement payments. The Slovak Republic provides relatively high payments at the beginning of a spell of unemployment, which facilitates job seeking and the reallocation of employment, and then lowers the replacement ratio significantly over time. The Czech Republic, by contrast, does not distinguish between short- and long-term payments and thus provides a kind of time-invariant replacement ratio of 73% on average, the second-highest long-term replacement ratio in the European Union.

All in all, after formerly generous eligibility conditions were tightened (Mira d'Ercole and Salvani, 2003), today's replacement ratios in the NMS are relatively low compared to those of the other EU Member States. Their unemployment benefit system can be characterized as relatively restrictive and on average less generous than that of the European Union (Mickiewicz and Bell, 2000; Boeri and Terrel, 2002). Taking longer unemployment periods into consideration, however, the data show that the average replacement ratio of the NMS is close to the EU average.

The maximum duration of benefit payments is also comparable to EU standards, though the eligibility is a bit shorter in the NMS (Schroeder, 2003). It may therefore be assumed that the current levels of unemployment replacement ratios are not a specific obstacle to more employment creation in the NMS.

Whereas high unemployment benefit replacement ratios may be a disincentive for an unemployed person to look for a job, high minimum wages may keep employers from hiring additional (low-skilled) workers.[7] On the other hand, low minimum wages may also – like high unemployment benefits – keep job seekers away from the official labor market to offer their skills on the black market instead.

[7] *On the other hand, Card and Krueger (1997) find a battery of evidence showing that increases in the minimum wage lead to increases in pay, but not to a loss of jobs.*

Recent empirical studies could not, however, find significant increases in shifts from unemployment to employment after unemployment benefits were sharply reduced (Schuettpelz, 2003). Rather, these studies show an inelasticity of unemployment to changes in unemployment benefit replacement ratios and duration (Huber et al., 2002).

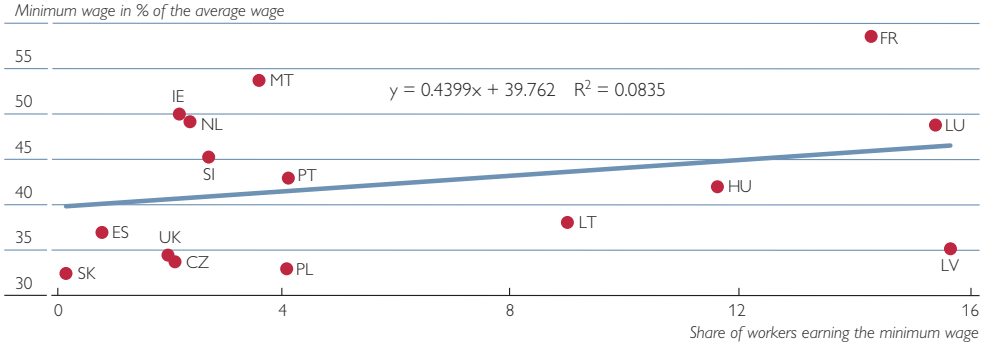
With the exception of Cyprus, general minimum wages exist in all NMS, whereas only two-thirds of the older EU Member States have introduced minimum wages. In the European Union minimum wage ratios, defined as the share of average wages, range from 32% in the Slovak Republic to 58% in France. In general, compared to the other EU Member States, minimum wages in the NMS in percent of average wages are at the lower end of the scale. In addition, these minimum wages have declined both in real terms as well as relative to real average wages (Mickiewicz and Bell, 2000). Two groups may be distinguished: the NMS on the one hand, which display the lowest ratios, and the old Member States on the other hand. Only Spain and the U.K. have minimum wage ratios comparable to the NMS average.

The picture becomes quite diverse when regarding the share of workers whose income is near the minimum wage level. While in the Czech Republic 2% of employees work for the minimum wage and in the Slovak Republic minimum wages are not applied in practice, in Hungary, which has relatively low minimum wages, the share of workers earning minimum wages is rather high. This may reflect regional deficiencies, as the minimum-wage share of average wages which are paid in some parts of Hungary, e.g. northeast Hungary, is relatively high. In addition, income is often at the minimum wage level in some industries, such as tourism or social and health services.

Chart 7 shows that there is a positive correlation between minimum wage ratios and the share of workers earning the minimum wage, though this correlation is less clear in the NMS than in the other EU member countries shown.

Chart 7

Minimum Wages as a Percentage of Average Wages and the Share of Workers Earning the Minimum Wage



Source: Eurostat, author's calculations.
Note: Country abbreviations are listed in the note to chart 2.

Boeri and Terell (2002) argue that in the transition economies, where trade unions are weak, minimum wages may often not be enforceable at all. Instead, minimum wages merely serve as a benchmark for social benefits, since many of these benefits are connected to minimum wage regulations. Thus, it is mainly

the battery of subsidies available to unemployed persons that acts as a floor for wage levels. Evidence for EU Member States shows that benefit levels have an important impact on unemployment. As discussed above, in some NMS unemployment benefit ratios are rather low compared to those in other EU Member States. But even for countries with higher benefit ratios, such as the Czech Republic and the Slovak Republic, Boeri and Terell (2002) find that up to a certain level, "constraining wage flexibility from below may foster structural change, rather than hinder it."[8] This adds another dimension to the whole discussion on the determination of labor market flexibility, which should be kept in mind when drawing conclusions from the analysis.

3.1.2 Wage Flexibility

From 1999 nominal wages rose steadily in the EU as a whole. This acceleration came to an end in 2002, however, reflecting the downturn in economic activity. In all NMS (except Lithuania), nominal wage increases during this period were on average three times higher than in the other EU Member States (European Commission, 2003a). In some countries, such as Hungary and Slovenia, this increase was quite substantial, mainly due to high inflation and the concurrent sharp rise in wages in the public sector, e.g. in Hungary.

Real wage increases in the European Union as a whole fell from 2% at the end of 1999 to levels of 1% to 1.5%. In the NMS, despite generally higher inflation rates until 2002, real wages increased more strongly than in the EU, with growth rates nearly six times higher (European Commission, 2003a). The increase was most pronounced in Hungary and Estonia. These sharp boosts in real wages exceeded the labor productivity growth in these countries and thus led to increasing unit labor costs (ULC). In the Czech Republic real ULC augmented, which may be attributable to very low inflation and low labor productivity. All other NMS observed declining ULC over the same period.

With respect to nominal wage increases, in recent years the NMS – unlike the other EU members – have stayed largely below the threshold described by the so-called "distributive margin," which equals real wage and labor productivity growth.

The figures in table 2 also show that nominal wage growth in the NMS, with the exception of Hungary, has moderated alongside disinflation. This suggests that there is some degree of nominal wage flexibility. Although until now there has been little need in the NMS for downward flexibility of nominal wages (due to the catching-up process and higher inflation in most countries), with the NMS approaching a low-inflation environment, the need for downward flexibility of nominal wages may become more important, in particular in the case of strong output fluctuations (ECB, 2003).

According to Schuettpelz (2003), taxes payable by the employer on the wage bill as well as employers' social contributions play a decisive role in employment dynamics. In some NMS these wage costs are relatively high compared to the rest of the EU, notably in Hungary, the Czech Republic and the Slovak Republic. Nonetheless, without prejudice to their decisive role,

[8] *See also Card and Krueger (1997). Although the authors primarily discuss the issue of minimum wages, their findings with respect to wage constraints from below are very similar.*

Table 2

The Distributive Margin in the EU

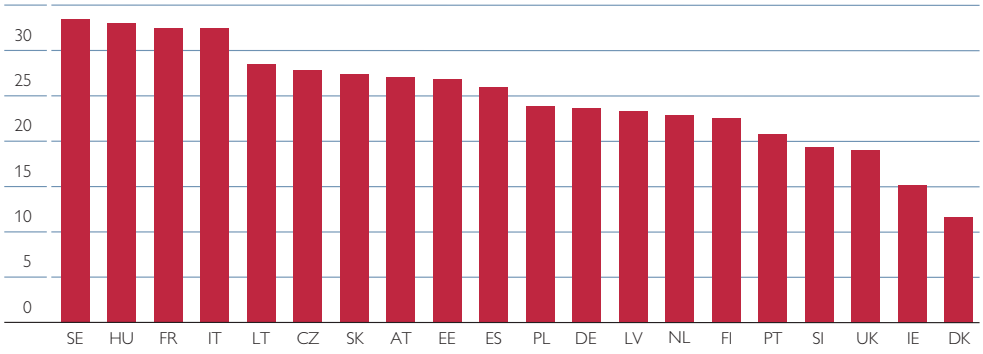
Country	Nominal wage increase (labor cost)		Inflation (HICP)		Labor productivity growth		Distributive margin[1]	
	1997–99	2000–02	1997–99	2000–02	1997–99	2000–02	1997–99	2000–02
BE	2.4	3.9	1.2	2.2	1.6	0.7	−0.4	1.0
DE	1.7	2.7	0.9	1.5	1.1	0.7	−0.3	0.5
ES	3.2	2.8	2.0	3.3	0.6	0.6	0.6	−1.1
FR	2.5	4.4	0.9	1.8	1.7	0.6	−0.1	2.0
IE	4.8	7.5	1.9	4.7	3.4	4.1	−0.5	−1.3
IT	2.2	2.9	1.9	2.5	1.2	0.3	−0.9	0.1
NL	1.6	4.7	1.9	3.8	1.2	0.2	−1.5	0.7
AT	2.5	2.9	0.8	2.0	1.7	1.4	0.0	−0.5
FI	3.4	4.5	1.3	2.6	2.3	1.3	−0.2	0.6
SE	3.9	4.0	1.1	2.0	2.8	0.9	0.0	1.0
CZ	10.4	7.3	6.5	3.3	1.0	2.5	2.9	1.5
HU	15.2	14.5	14.2	8.1	2.8	3.6	−1.8	2.8
SK	10.5	9.2	7.7	7.5	4.4	2.7	−1.6	−1.0
SI	10.4	10.6	7.4	8.3	4.6	3.8	−1.6	−1.5
PL	21.0	8.6	11.3	5.8	4.4	4.2	5.3	−1.4
EE	12.9	11.7	7.1	4.4	7.0	6.2	−1.2	1.1
LT	15.9	0.2	4.8	0.9	5.3	5.2	5.8	−5.9
LV	5.2	6.5	4.8	2.4	4.6	6.1	−4.2	−2.0

Source: European Commission (2003a).
[1] Distributive margin: real wage growth minus productivity growth.
Note: Country abbreviations are listed in the note to chart 2.

the shares of nonwage labor costs are within a "normal" range compared to the other EU Member States (see chart 8). However, it should be noted that the tax burden on low-wage earners is clearly above the EU average in all NMS (European Commission, 2003a).

Chart 8

Share of Nonwage Labor Costs in 2000



Source: European Commission (2003a).
Note: Country abbreviations are listed in the note to chart 2.

A further aspect of wage flexibility is the degree of wage differentiation among e.g. sectors, industries or enterprises. Wage differentiation by sector as well as by firm size is significantly above the EU average in Hungary and in Poland, and with respect to the service sector also in the Slovak Republic. By contrast, wage differentiation is generally low in the Czech Republic, and it is lowest in Slovenia (European Commission, 2003b).

Moving on to *wage formation* and the *structure of wage bargaining*, wage bargaining may take place at different levels (the enterprise, industry, sector, national level, etc.) and between various negotiating partners (a single employee

and the employer, works councils, trade unions, government, etc.). Wage formation in the European Union is to a large extent based on collective bargaining structures. However, wage-setting structures as well as the role of trade unions in wage formation differ widely across the Member States (European Commission, 2003a). The main differences concern the degree of centralization and coordination at various levels, including the national, sectoral, industry and enterprise levels, the coverage rates of collective agreements and the frequency of wage bargaining.

Most of the old EU Member States have a multilevel wage bargaining structure, with centralized bargaining at the intersectoral and subsequent bargaining at the enterprise level (European Commission, 2003a). But whereas in Belgium, Ireland and Finland, wage bargaining is highly centralized, in the U.K. and France bargaining at the enterprise level is predominant. In the rest of the Member States wage bargaining takes place primarily at the industry level.

Bargaining structures look somewhat different in the NMS. Trade unions and employer organizations are among the institutions that have changed dramatically during transition (Mickiewicz and Bell, 2000). While under socialism, employer organizations did not exist at all, trade unions had practically no influence on wage setting, and with some exceptions (e.g. the independent Solidarnosc), they were basically used to justify and implement the wage policy of the government. Starting from this situation, trade unions developed in different directions. Some continued the pattern of activities they had followed in the communist era, though in a modernized fashion, some split into several unions, and new organizations of opposition origin were formed, leaving a rather fragmented trade union movement in some countries, e.g. Hungary. Employer organizations were also formed, though they are still very fragmented and not as well-organized as trade unions. Thus trade unions sometimes encounter the problem that they lack the counterpart employer association to negotiate with at an equivalent level. Against this background, social partners play only a small role in policymaking.

Not surprisingly, as a result today collective bargaining in the NMS takes place mainly at the enterprise level (table 3), with workers' interests often represented by works councils (Huber et al., 2002). Only in Slovenia, where the state prescribes collective agreements, does national or sectoral bargaining predominate. In Hungary and in Latvia, some sectoral bargaining may also be observed, however. Negotiations at the industry level are of some importance only in the Slovak Republic, and to a certain extent also in Hungary and Slovenia. Collective bargaining mainly takes place in industries with a monopolistic or oligopolistic structure, such as the energy or railroad sectors (Funk and Lesch, 2004). However, in these countries collective agreements at the industry level merely serve as a framework for subsequent negotiations at the enterprise level.

In all NMS wage bargaining is accompanied and supported by "social pacts" (Funk and Lesch, 2004) negotiated on a tripartite basis between employees, employers and the government. These pacts involve the social partners to a certain extent in the economic reform process of the government. Although still very small, the influence of social pacts on wage setting is largest in Slovenia,

Table 3

Wage Bargaining Structures in the European Union

Country	National (cross-sectoral)	Sectoral (industry)	Enterprise	Coverage[1] %
LT		*	***	15
EE		*	***	28
HU	*	**	***	31
LV	*	*	***	19
PL		*	***	37
ES		***	*	76
PT		***	*	75
UK		*	***	37
CZ		*	***	33
FR		*	***	90
NL		***	*	76
SK		***	**	47
DE		***	*	76
IE	***	*	*	57
DK	**	**	*	72
GR	*	***	*	95
IT		***	*	90
SE		***	*	86
AT		***	*	91
FI	***	*	*	89
SI	**	**	*	97
BE	***	*	*	93

Source: Funk and Lesch (2004), European Commission (2003a), Schroeder (2003).
*Note: * less important, ** important, *** predominant. Country abbreviations are listed in the note to chart 2.*
[1] Coverage rate of collective agreements with respect to total employment.

Poland and Hungary. In practice, however, these pacts are at best relevant for the setting of minimum wages, where such pacts have a more binding character.

To sum it up, the collective bargaining structure in the NMS is comparatively more decentralized than in the old Member States. According to Calmfors and Drifill (1988), higher wage flexibility may be observed either in countries in which wage bargaining is largely decentralized, e.g. the Czech Republic or the U.K., or in countries with strongly centralized bargaining systems, such as Slovenia (and other EU Member States). Countries with union coordination and without strongly centralized or decentralized bargaining structures may provide lower flexibility. In her estimations on the impact of labor market institutions on labor market outcomes, Cazes (2002) even finds that the coefficient for union coordination is negative with respect to unemployment as the dependent variable; the higher the coordination degree is, the lower unemployment is. Cazes therefore suggests that although union density and union coverage variables are positive, implying that powerful trade unions are inversely associated with a decrease in unemployment, a good coordination between unions and employer organizations can offset the previous effect.

Turning to the issue of *wage elasticity,* there are two competing approaches (Huber et al., 2002; Onaran, 2002; Büttner et al., 2003) to calculate the flexibility of wages: the wage curve approach and the Phillips curve approach. There are important conceptual differences between these two methods. The first is usually interpreted as an equilibrium concept, since it deals with the determinants in labor market equilibrium and is used to estimate the correlation between wages and unemployment, controlling for sectoral composition and particular effects. The second is interpreted as an adjustment process toward labor market equilibrium. It relates wage growth to unemployment (and expected inflation). Various extensions and variations exist for both concepts.

In this paper, a wage bargaining model of the Phillips curve type is used. The wage-setting equation can be defined as follows:

$$NW_t = \alpha_1 + \alpha_2 {}^* U_t + \alpha_3 {}^* CPI_t^e + \varepsilon_t \quad (1)$$

where NW_t is the nominal wage rate (in logarithmic terms) demanded by workers in period t, α_1 is the constant, U_t is the unemployment rate in period t and CPI_t^e is the consumer price level (in logarithmic terms) expected by the workers to prevail during the period for which NW has been negotiated. The coefficient of unemployment is interpreted as a measure of wage flexibility. Within a flexible wage bargaining regime, one expects higher unemployment to exert downward pressure on wage claims. Therefore, if wages respond flexibly to unemployment, the sign of the coefficient should be negative.

Since wage bargaining is in practice determined by the rate of change in wages and by the expected rate of inflation rather than the level of wages and prices, the equation therefore is rewritten as follows:

$$\triangle \log NW_t = \alpha_1 + \alpha_2 {}^* \triangle U_{t-j} + \alpha_3 {}^* \triangle \log CPI_{t-k}^e + \varepsilon_t \quad (2)$$

The dependent variable NW_t is a three-month moving average of changes in nominal wages. The unemployment rates are based on labor force survey data. The terms $t-j$ and $t-k$ imply different time lags.[9] The results of the calculations are shown in table 4.

Table 4

Wage Elasticity in Selected Countries

Country	$\triangle U_t$	$\triangle CPIe_t$	R^2
AT	−0.0092**	0.2723**	0.13
	(0.0038)	(0.132)	
DE	−0.0105*	0.5985*	0.18
	(0.0034)	(0.216)	
FR	−0.0141*	0.8955*	0.30
	(0.0036)	(0.188)	
NL	0.0043**	0.5018*	0.15
	(0.0021)	(0.161)	
PT	−0.0173*	1.1138**	0.13
	(0.0068)	(0.491)	
Euro 12	−0.0114*	0.4451**	0.13
	(0.0042)	(0.22)	
CZ	0.0067*	0.2374**	0.27
	(0.0016)	(0.098)	
HU	−0.0057**	0.8016*	0.70
	(0.0024)	(0.061)	
SK	0.0060*	0.1360*	0.30
	(0.0018)	(0.052)	
SI	−0.0084***	0.3793*	0.13
	(0.0052)	(0.122)	
PL	−0.0113**	0.9704*	0.31
	(0.0046)	(0.216)	

Note: Values in brackets report standard errors of the estimate. Coefficients are significantly different from zero at the 1% (*), 5% (**) and 10% (***) level. Country abbreviations are listed in the note to chart 2.

The results show first of all that wage elasticity is in general low. In this context, some differences in wage elasticity between the Member States can be reported. It can be argued that the average wage elasticity of the NMS seems to be slightly lower than the average of the other Member States. In our sample, Poland has the highest elasticity of all NMS, which is about the Euro 12 average. But Slovenia and Hungary are also comparable to the other Member States,

[9] *CPIe is substituted by realized inflation.*

whereas the Czech Republic and the Slovak Republic show a clearly lower wage elasticity. However, as mentioned above, until now there has been little need in the NMS for downward flexibility of nominal wages because productivity growth has been strong and inflation has been partly high.

These results are largely in line with those of other studies. Huber et al. (2003) suggest that in the NMS the elasticity with respect to national unemployment rates may be lower than in the European Union on average.

Unlike wage flexibility at the national level, regional wage flexibility has been shown in studies (Büttner et al., 2003; Huber, 2003) to be higher in the NMS than in the European Union on average; accordingly, the NMS are in a more favorable position in dealing with region-specific shocks.[10] Büttner (2003) finds that Hungary and the Slovak Republic show the strongest elasticities. Conversely, a recent study by Iara and Traistaru (2003) that estimates static and dynamic wage dependencies finds only limited flexibility for Hungary (–0.05) and for Poland (–0.04). In Hungary and Poland, necessary wage adjustments took place with a two-year and one-year delay, respectively. Iara and Traistaru therefore conclude that although wage flexibility could act as an adjustment mechanism in equilibrating regional labor markets in the NMS, "this adjustment is likely to take place with a delay which implies that labor market disequilibria might persist."

However, studies on regional asymmetric shocks prove that adjustment to these shocks takes place in the short and medium term mainly as a reaction of the activity rate (quantitative adjustment). Thus adjustments via wages are generally insignificant and only of little importance within the European Union including the NMS (Huber and Traistaru, 2003).

3.1.3 Union Flexibility

In order to approximate union flexibility, two aggregates are examined: first, what is referred to as union density, i.e. the share of unionized workers in total employment, and second, union coverage, understood to be the coverage of collective agreements. The available data on union density vary markedly, although one may assume that accurate membership figures in all countries in consideration should be available. The same is true of union coverage data. The figures indicated are therefore based on the author's calculations, in most of the cases averages of published data.

In addition, one has to be especially cautious using the term "flexibility" when evaluating union flexibility. According to the literature, union flexibility is high when union density and coverage are low. This correlation may be true in most of the cases, but not necessarily always.

As mentioned, trade unions were among the institutions that changed dramatically during transition. Before 1989, trade union membership was compulsory and union density was therefore extremely high. After the breakdown of communism, trade unions developed in different directions. Nonetheless, they all share some common features, one of which is that membership in trade unions is decreasing (or has decreased) to European Union average levels. This

[10] *Most of the evidence about the reaction of wages to regional unemployment rates in the NMS has been based on the wage curve approach. Not only have the results been mixed, there is some evidence that wage curve estimates in the 1990s were not very robust (Huber and Traistaru, 2003).*

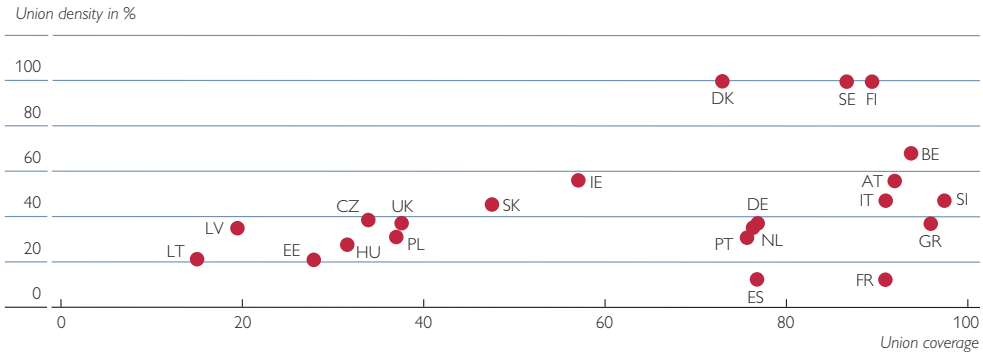
may be mainly attributed to the abolishment of formerly compulsory union membership, the increase in unemployment and the mushrooming of SMEs following the privatization and liberalization process (Funk and Lesch, 2004). Today, union density in the NMS ranges from 24% in Hungary to 37% in the Slovak Republic.

Data for the European Union show that union density varies from 10% in France and Spain to 80% in the Nordic countries. Leaving the Nordic countries out of account, union density in the NMS is comparable to that in the rest of the EU Member States.

Beside union density, union coverage is an indicator of flexibility, probably a more meaningful one. Whereas union density in the NMS may be comparable to that in the other EU Member States, union coverage in the NMS is clearly much lower. The only exception is Slovenia, where nearly every employee is covered by some collective agreement. This overwhelming coverage is due to the fact that the state prescribes the drawing up of collective agreements. Chart 9 shows the clear distinction between the NMS and the other EU Member States.

Chart 9

Union Density and Coverage in 2001



Source: Funk and Lesch (2004), Schroeder (2003).
Note: Country abbreviations are listed in the note to chart 2.

In contrast to most NMS, the coverage of collective agreements is fairly high in the majority of EU Member States, where systems of national and sectoral bargaining, coupled with the extension of agreements to nonsignatories, ensure that the majority of employees is covered by collective agreements (European Commission, 2003a). In addition, nominal wage contracts are of a relatively longer duration in the old Member States than in the NMS (ECB, 2003).

It may be concluded that while average NMS union density is lower than the EU average but still roughly comparable to that of the other EU Member States, union coverage is significantly smaller in the NMS. In addition, both ratios are on a declining track.

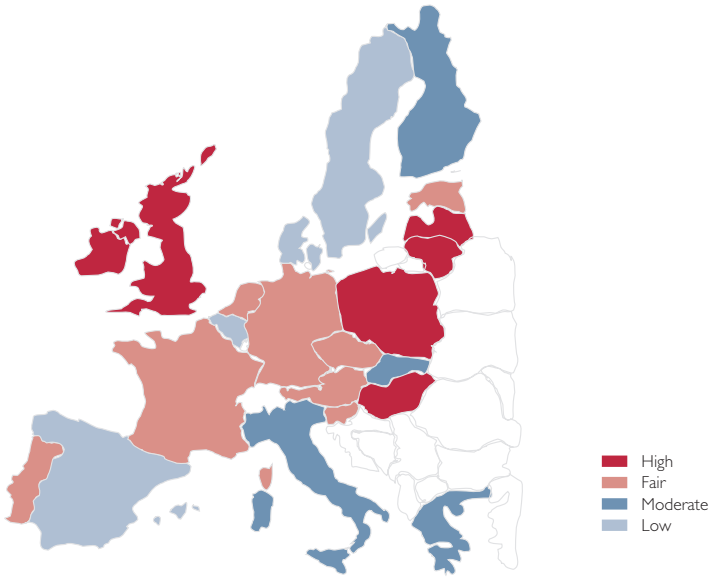
To complete this picture, one would have to take into account union power, which is itself reflected by union coverage and density on the one hand and specific bargaining structures on the other hand. As already discussed, in general the role of trade unions is weak and, in addition, workers' interests in the NMS are often represented at the enterprise level by works councils.

3.1.4 The Labor Cost Index

The types of flexibility discussed above (unemployment, wage and union flexibility) are now aggregated to a so-called *labor cost index,* which is a weighted average of the single values of each subindex. Each index is weighted according to several indices found in the literature. For instance, Cazes (2003) estimates the impact of labor market institutions on labor market outcomes. Using unemployment as the dependent variable, she finds that active labor market policies, union coverage and to a lesser extent bargaining coordination between trade unions and employers' organizations seem to have an impact on overall unemployment. On the other hand, union density, unemployment replacement ratios and the length of time for which benefits are payable are insignificant. For each subindex (e.g. union coverage) and for each country a value was calculated relative to the performance of the other countries. These values are weighted according to the estimates found in the literature mentioned above.[11] The results show that the whole sample of countries can be divided into four distinctive groups, each of which represents a different degree of labor cost flexibility (table 5 and illustration 2).

Illustration 2

Labor Cost Flexibility across Europe



Source: OeNB.

Labor cost flexibility in the NMS can be described as being relatively high compared to that in the other Member States. Indeed, with the exception of the Slovak Republic, the NMS – most of all Hungary, Latvia, Lithunia and Poland – are among the most flexible countries with respect to labor costs.

[11] *The union flexibility index is a composition of the values for union density plus double the values for union coverage. The unemployment flexibility index is a composition of the values for replacement ratios, benefit duration and minimum wage ratios. The wage flexibility index is a composition of values for collective bargaining structures and double the values for bargaining coordination. All these values represent institutional aspects of labor cost flexibility. In addition, the estimated wage elasticity is weighted triple and treated as a separate index for calculating the overall labor cost index. The single values of the indices with respect to union, unemployment and wage flexibility as well as wage elasticity were totaled and divided by four to produce the labor cost index.*

Table 5

Labor Cost Flexibility

Labor cost flexibility is …	high	HU, IE, LV, LT, PL, UK
	fair	AT, CZ, EE, FR, DE, NL, PT, SI
	moderate	GR, FI, IT, SK
	low	BE, DK, ES, SE

Note: Country abbreviations are listed in the note to chart 2.

Austria may also be rated as having fairly flexible wage bargaining structures and institutions. Only for Belgium, Denmark, Spain and Sweden do the indices point to relatively lower labor cost flexibility. However, it must be emphasized that these results represent relative values. In absolute terms, wage flexibility is generally rather limited.

3.2 Other Measures of Labor Market Flexibility

Other measures of labor market flexibility encompass what has been called supply-side flexibility and production function flexibility. Two aspects covering both indices are briefly discussed below: labor mobility and employment protection legislation.

3.2.1 Labor Mobility

If an economy faces an adverse shock to labor demand, there are basically two ways by which the labor market can adjust: either relative prices for labor fall sufficiently (real wage flexibility) or quantities adjust, e.g. unemployment increases, labor migrates to other regions or the activity rate adjusts. In this context, labor mobility may serve as an effective channel for regional adjustment to asymmetric shocks, as migration helps to reduce interregional unemployment and wage differentials. A lack of labor mobility can thus have profound economic consequences, especially against the background of monetary integration. In the NMS, economic reforms have had largely asymmetric repercussions, resulting in large and persistent unemployment and wage differentials, which in turn emphasize the need for effective regional adjustment (Fidrmuc, 2003). Despite the importance of labor mobility, there is only very little research on mobility in transition economies.

Existing research on labor mobility in the NMS shows rather low levels of interregional labor mobility in many countries (ECB, 2003). Fidrmuc (2003) finds that despite large and increasing interregional wage and unemployment disparities, migration flows have actually been declining.

Compared to the EU, where mobility is already very low and declining in some countries, mobility in the NMS is even lower (see Huber et al., 2002; Fidrmuc, 2001). Some studies (Bardsley and Ederveen, 2003) also show a lower elasticity of regional mobility in the NMS with respect to regional differences in wages and unemployment. Thus, sizeable differentials in wages and unemployment rates give rise to only very modest migration flows. Looking at international migration patterns (Huber et al., 2002), migration in the NMS is on the one hand substantially less responsive to wage differences than in the European Union, but on the other hand more responsive to unemployment rate differentials. Overall, international migration in the NMS seems to be less efficient in smoothing regional disparities than migration within the EU.

Among relatively prosperous regions, migration appears mainly between two regions with large productivity and income differentials. This may indicate that a large proportion of migrants are relatively highly skilled. If this pattern prevails, the free movement of workers within the EU (though limited by transition periods) may have adverse effects (brain drain) on the NMS (Fidrmuc, 2003).

Turning to occupational mobility, evidence can be found (ECB, 2003) that mobility across jobs, as measured by the job turnover rate, was high in the early 1990s. However, mobility has declined significantly since then, and worker flows across sectors and occupations are relatively low in the NMS today (Boeri and Terell, 2002). In this context, some argue that to a large extent existing human capital and skills do not fit the needs of a post-industrial economy (Schuettpelz, 2003), thus leading to higher structural unemployment.

This also fits into the picture that labor market problems in the NMS seem to be associated with a low probability of escape from unemployment. Instead, flows into inactivity represent a substantial part of the adjustment mechanism of labor markets (Huber et al., 2002). The evidence indicates (Fidrmuc, 2003) that the efficacy of regional mobility to reduce interregional unemployment and wage differentials is rather low. In this context, it is to be expected that regional mobility in the NMS is very limited as a labor market "adjustment mechanism," even more so than in the EU.

3.2.2 Employment Protection Legislation

Finally, to partly capture the concept of production function flexibility, OECD employment protection legislation (EPL) indicators will be considered briefly. These indicators measure the overall strictness of EPL and in particular provisions for regular and temporary employment as well as collective dismissals. These indicators obtain values ranging from 0 to 5, where 0 is equal to practically no protection at all, and 5 to very strict protection rules.

Table 6

OECD Employment Protection Indicators

Country	Overall	Regular employment	Temporary employment	Collective dismissal
BE	2.5	1.5	2.8	4.1
DK	1.5	1.6	0.9	3.1
DE	2.6	2.8	2.3	3.1
GR	3.5	2.4	4.8	3.3
ES	3.1	2.6	3.5	3.1
FR	2.8	2.3	3.6	2.1
IE	1.1	1.6	0.3	2.1
IT	3.4	2.8	3.8	4.1
NL	2.2	3.1	1.2	2.8
PT	3.7	4.3	3.0	3.6
AT	2.3	2.6	1.8	3.3
FI	2.1	2.1	1.9	2.4
SE	2.6	2.8	1.6	4.5
UK	0.9	0.8	0.3	2.9
CZ	2.1	2.9	0.5	4.3
HU	1.8	2.1	0.6	3.4
PL	2.0	2.2	1.0	3.9
SK	2.3	2.6	1.0	2.4
SI	3.3	3.4	2.5	4.5

Source: European Commission (2003a), OECD (1999), Cazes and Nesporova (2003), author's calculations.
Note: Country abbreviations are listed in the note to chart 2.

Studies on cross-country evaluations of the strictness of employment protection legislation in selected transition economies in the late 1990s show that employment protection rules differ widely across transition countries (OECD, 1999). However, on average the NMS have EPL rules that are similarly liberal to those in the remaining European Union. Moreover, after the latest labor code amendments in most of the NMS, it seems that they have recently become more liberal on average than the other EU Member States (ECB, 2003). Thus, with the exception of regulations concerning collective dismissals, employment legislation in the NMS in general can be regarded as less strict than in the European Union as a whole. In fact, the impact of EPL on labor market performance and labor market flows in transition countries, though not insignificant, seems to be very modest (Cazes and Nesporova, 2003). Cazes (2002) finds that EPL has little or no effect on overall unemployment levels and on unemployment duration.

4 Conclusions and Outlook

Looking at NMS labor market developments, one may observe an overall decline in employment figures and low employment rates despite relatively high growth rates. While unemployment in Poland and the Slovak Republic is extremely high, unemployment rates in the other NMS are comparable to or even below EU averages. In some NMS employment recently gained some momentum, and the overall trend will probably turn positive in the near future. However, future restructuring of the labor market following strong structural changes in the NMS in the wake of the catching-up process combined with further sizeable shifts in sectoral compositions may impose difficulties on the labor markets. In addition, regional disparities are likely to increase.

The accession to the EU on May 1, 2004, has several effects on the NMS labor markets, two of which are set forth: First, there will be some enlargement effects. For instance, Breuss (2001) calculates significant positive employment effects for the NMS between (cumulative) 0.4% and 1.7% until 2010. At the same time, unemployment rates will decline within the same period, sinking by 0.15 percentage point in the Czech Republic, 0.4 percentage point in Hungary and 1.33 percentage points in Poland.

In addition, accession will have significant positive mid-term and long-run effects on GDP growth (Boeri and Brücker, 2000; Breuss, 2001). However, in the short run, entrance into the single market will entail possibly sizeable economic and structural adjustments in the NMS, which might even imply some transitional output losses compared to a reference scenario.

Second, upon accession to the European Union, the NMS entered the monetary integration process which ends with the adoption of the euro. This implies that the NMS restrict (step by step) and finally relinquish autonomy over monetary policy as well as exercise important restrictions on fiscal policy. The set of tools available for dealing with asymmetric shocks will be reduced. In this context, standard optimum currency area theory stresses the importance of flexible labor markets. Thus, in the absence of a national monetary policy, labor market policies become central to accommodating idiosyncratic shocks.

Therefore, this paper examines the flexibility of NMS labor markets by aggregating an index of labor cost flexibility and calculating wage elasticities

as well as elaborating on other flexibility issues, such as labor mobility or employment protection legislation. The results show higher labor cost flexibility in the NMS than in the EU in general. There are also signs that so-called production function flexibility is higher in the NMS, at least according to existing employment protection legislation. On the other hand, supply side flexibility, notably occupational and regional mobility, seems to be lower than in the other Member States. It follows from the analysis that below the bottom line overall labor market flexibility is similar to EU standards. Huber and Traistaru (2003) conclude that overall flexibility is small or even insignificant. In addition, findings (Cazes, 2002) confirm that the main focus of collective bargaining has so far been on employment protection and negotiating wage increases, leaving aside the issue of jobless persons and contributing to a longer duration of unemployment.

However, Büttner (2003) and Huber (2003) find that the adjustment mechanisms on the labor markets in the NMS may be deemed as well suited for EMU as those of other Member States. Moreover, because wages in the NMS are more responsive to regional labor market conditions, the NMS show a higher degree of adjustment capability for regional labor markets and therefore may probably find it easier to adjust to asymmetric shocks. This conclusion, however, rests on the assumption that shocks in the NMS and in the old Member States are equally asymmetric and persistent; in addition, the labor market adjustment mechanisms are not endogenous to monetary integration.

Since the NMS are still in the midst of a transition and catching-up process, the NMS will not only face asymmetric shocks, as several studies suggest, but in addition, as these studies prove, the shocks which occur in the transition economies are largely uncorrelated with those prevailing in EMU member countries (Horvath, 2001). Against this background and because overall labor market flexibility is rather limited, labor markets in the NMS may not be sufficiently well-equipped to deal with such shocks. Therefore, with a view to further monetary integration, Fidrmuc (2003) finds that early participation in the euro area may not be the optimal choice for some of the NMS. Further efforts to enhance labor market flexibility have to be made, especially improving regional mobility and applying active labor market policies.

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