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Does Eurosclerosis Matter? Institutional Reform and Labor Market Performance in Central and Eastern European Countries in the 1990s

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Abstract

This paper examines the labor market dynamics of six CEE countries over the last 10 years, paying special attention to the nature of labor market institutions these countries have adopted and their impact on labor market performance. This paper finds that, compared to EU countries, CEE countries fall in the "middle" of the flexibility scale regarding their employment protection legislation. While the effect of labor market institutions is hard to uncover, it should not be disregarded and they are likely to play an important role in the coming years.

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I. Introduction

Whether or not labor market rigidities are an important contributor to persistently high levels of unemployment remains at the center of an important debate in Europe. European labor markets are often viewed as rigid and inflexible in opposition to those in North America where legislation is less protective of employment and fosters greater mobility. The fairly high unemployment rates that persist in numerous parts of Europe are often attributed to these rigidities.

The debate has taken renewed relevance with the potential entry of new countries in the European Union (EU hereafter). As those countries are compelled to have laws and policies consistent with the "acquis communautaire", an interesting question is whether they have introduced in their labor markets the same rigidities that exist in other European countries. An even more fundamental question is whether those rigidities, if they exist, are slowing down the adjustment of labor markets in these economies, wasting potential for productivity growth and leading to a persistently high level of unemployment. In other words, are Central and Eastern European countries (CEE hereafter) likely to contract a European disease, commonly called "eurosclerosis" on their way toward accession into the EU? Does this disease really matter?

The paper will thus attempt to answer the following questions:

- To what extent have the CEE countries - which aspire to enter the EU - adopted labor market institutions (job security provisions, support programs for the unemployed and other

related policies) which make the functioning of their labor markets relatively inflexible and rigid?

- How do their policies and legislation compare with those in the member countries of the EU and OECD?

- To what extent have these institutions shaped labor market adjustment dynamics in these economies during the transition? How does the impact of institutions on labor market outcomes compare to that of macroeconomic and structural reforms? Have labor market institutions and policies had an impact on the effectiveness of economic reform programs? In other words, to what extent do they "matter"?

In our search for answers, we examine labor market institutions during the 1990s for a group of EU accession countries (i.e. the Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia), following the methodology used by the OECD (1997, 1999). This allows us to compare our results for the CEE countries with those presented by the OECD for its member countries, including EU countries. We then discuss the role played by these institutions in the context of the ongoing macroeconomic and structural reforms. In doing so, we relate to the economic literature that views labor market adjustment not uniquely as a function of labor market institutions, but rather as the result of the interaction between such institutions and other factors outside the labor market (Blanchard and Wolfers, 1999).

We show that:

- CEE countries, although adopting the set of policies and institutions common to European countries, do not constitute a monolithic group. There is diversity among them and, as a result, some countries have a more flexible labor market than others. However, when compared to EU and OECD members, most of these countries tend to be in the middle of the 'labor market flexibility' scale.

- CEE countries have experienced tremendous changes in their labor markets – in terms of labor reallocation across economic sectors, changes in patterns of labor force participation and employment-to-population ratios, and emergence of unemployment. These changes would not have taken place without wide-ranging economic reform programs. Changes in fiscal and monetary policy, price and trade liberalization, privatization and introduction of financial regulations have had a huge impact on labor market dynamics.

- Even if the impact of labor market institutions has remained modest and hard to uncover, one should not conclude that they are insignificant. There are a number of signs such as low employment creation, a rising proportion of long-term unemployed, specific patterns of labor force participation and the size of the informal economy that reflect the impact of labor market institutions. One can also relate differences between countries to the diversity of policies and institutions.

The rest of the paper is structured as follows. Section II presents a description of selected labor market institutions in these countries and compares them to those in EU and OECD countries. Section III documents the main labor market developments. Section IV discusses the macro and structural reforms implemented during the 1990s and their effect on the labor market, compared to that of institutional changes. Finally, Section V concludes.

II.   How Flexible Are Labor Markets in CEE Countries? An analysis of Labor Market Institutions in the 1990s.

Measuring the degree of flexibility or rigidity of labor markets is not an easy task due to the lack of a *unique* quantifiable indicator that can serve as barometer. As pointed out by Freeman (2000), "there is no generally accepted taxonomy for classifying economies into different institutional groupings, not even a scale to measure the distance between particular institutional settings. Are Japanese institutions closer to those of the United States or Germany? Are United Kingdom institutions more American or European? We have no measures of institutions to answer these questions definitely".

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. This is the approach followed by Lazear (1990), Nickell (1997), Blanchard and Wolfers (1999) and the OECD in its Jobs Study and Employment Outlook (1994, 1999). We have adopted a similar approach in this paper and discuss different sets of indicators of labor market policies and institutions. This set includes (i) an employment protection legislation index; (ii) various measures of the coverage, cost, and effectiveness of passive and active labor market policies; and (iii) indicators of union strength and tax burden on labor (e.g. payroll taxes)[1].

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[1] Due mainly to lack of accurate data we do not examine in detail the role of minimum wages. However, the available evidence seems to suggest they are not binding in most of the countries studied here.

Using these indicators, we find that:

- CEE countries do not constitute a monolithic group. Despite their common recent history and similar steps taken to join the EU, they have adopted somewhat different labor policies. In terms of employment protection, Hungary seems to have adopted the most flexible legislation and Slovenia the least flexible.

- Despite some disparity, these countries – when compared to EU and OECD members, tend to be in the middle of the 'labor market flexibility' scale (with the exception of Slovenia). Their labor markets are definitely less flexible than those in the United States or the United Kingdom, but certainly not as rigid as those in Southern Europe.

- Although CEE countries have adopted - again with some degree of variation - the set of policies (passive and active) common to all EU and OECD countries, they are devoting modest amounts of budgetary resources to the unemployed and, in this respect, are closer to the United States, the United Kingdom and Southern Europe than to Central and Northern Europe.

- Finally these countries have moved away from a centralized wage bargaining system and towards a more liberalized system of wage negotiation. However, institutions and social norms inherited from the previous regime still play an important role in the bargaining process. Also the tax burden on labor in these countries is the highest in Europe.

We comment on both the differences and the commonalities with respect to each type of indicators below.

A. Employment Protection Legislation.

Employment protection legislation refers to regulations that restrict the employers' freedom to dismiss workers. While their objective is to "protect" the welfare of employees by reducing their exposure to unfair actions and to the risk of fluctuating incomes, these regulations may increase the costs of employing workers. The consequence can be a reduced flow of vacancies and thus, lower employment levels.

We construct two different Employment Protection Legislation indices (EPL, versions 1 and 2) for the six CEE countries using the OECD methodology. Version 1 considers exclusively legislation on permanent and temporary employment, while Version 2 expands the scope of the index to account for legislation on collective dismissals. Both indices aim at

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measuring the degree of strictness of the legislation. The use of the OECD methodology in both cases allows us to make comparisons not only among CEE countries, but also with EU members and other OECD countries.

Although we construct both indices below, we will only discuss the expanded version (Version 2)[2]. This version of the EPL is a weighted average of 22 indicators, some readily available in quantitative form (e.g. notice period or severance payment), some constructed from qualitative information (e.g. difficulty of dismissal)[3]. The indicators for the Czech Republic, Poland and Hungary are based on OECD data, and the indicators for the remaining, non-OECD countries are based on the review of their most recent labor legislation. The EPL index takes values 1 to 6, and the higher the value the stricter is the employment protection legislation.

Clearly, countries in Central and Eastern Europe do not constitute a monolithic group. When we compare the value of the EPL index for all six countries, we find substantial disparities (Table 1). Hungary has the most flexible labor legislation, with an EPL index

Table 1. Employment Protection Legislation in EU Accession Countries. Late 1990s.

	Regular Empl.	Temporary Empl.	Collective Dismissals	EPL Strictness	
				Version 2[1]	
				Index	Rank[2]
Czech Republic	2.8	0.5	4.3	2.1	3.0
Estonia	3.1	1.4	4.1	2.6	5.0
Hungary	2.1	0.6	3.4	1.7	1.0
Poland	2.2	1.0	3.9	2.0	2.0
Slovakia	2.6	1.4	4.4	2.4	4.0
Slovenia	3.4	2.4	4.8	3.5	6.0
Slovenia[3]	(2.9)	(0.6)	(4.9)	(2.3)	(4.0)
CEEC average	2.7	1.2	4.1	2.4	
EU average[4]	2.4	2.1	3.2	2.4	
OECD average[5]	2.0	1.7	2.9	2.0	

Source: OECD (1999) Employment Outlook 1999. World Bank estimates for Estonia and Slovenia.
1/ Weighted average of indicators for regular contracts, temporary contracts, and collective dismissals.
2/ All rankings increase with the strictness of employment protection.
3/ Based on proposed labor code.
4/ Does not include Greece and Luxemburg.
5/ Average for all OECD countries on Table AI.1.

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[2] Version 1 can be found on Tables AI.1 and AI.2, in Annex I.
[3] See Annex II for a detailed methodological description of the EPL index.

value of 1.7, closely followed by Poland (2.0) and the Czech Republic (2.1). Slovakia and Estonia occupy the middle ground, with an index of 2.4 and 2.6 respectively. Finally, Slovenia has the most restrictive labor regulations, with an EPL index value of 3.5[4].

These disparities can, in turn, be explained by differences in regular employment legislation, temporary employment legislation and collective dismissals legislation, with differences in temporary employment legislation being the largest (i.e. the standard deviation of this indicator represents 50 percent of its mean value, compared to 15 percent for the other two indicators).

Regular employment legislation establishes the rules for hiring and firing procedures for permanent workers, notification requirements, and severance payments. This legislation is most flexible in Hungary and Poland, with index values of 2.1 and 2.2 respectively. In Hungary a written statement to an employee is sufficient for the dismissal to take place, while in other countries the notice of dismissal must be shared with a third party, usually an employee representative body. In addition, in Hungary and Poland 'unsatisfactory performance' and 'job redundancy' are sufficient reasons for dismissal, whereas in the Czech Republic, Estonia, Slovakia and Slovenia employers are required to take into account social considerations, to look for retraining or even to ensure the worker's transfer to another suitable position. Finally, in both Hungary and Poland the notice period is short and the severance payment small[5].

Temporary employment legislation regulates the use of fixed-term contracts, their renewal and maximum duration, as well as the functioning of temporary work agencies. The Czech and Hungarian legislations stipulate the least amount of restrictions (index values of 0.5 and 0.6 respectively), while the Estonian, Polish, and Slovak legislations are stricter, with index values that are two to three times higher. Slovenia is an outlier in the group with the most restrictive legislation of all and an index value of 2.4.

These differences respond mainly to the fact that in the Czech Republic and Hungary temporary contracts can be used with almost no restrictions or limits to their number or duration, while in other countries they can only be used for specific reasons and for a limited

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[4] Slovenia is about to adopt a new, much more flexible labor code. We have included in all tables EPL values corresponding to this new legislation for the reader to appreciate the magnitude of the potential changes, which will bring the EPL index to 2.3.

period. In contrast, differences in the regulation of temporary work agencies are nil, with the exception of Slovenia where their use is limited to 2 months[6].

Collective dismissals legislation defines the term 'collective', as opposed to 'individual', and stipulates notification requirements and payments associated with such dismissals. As was the case with regular and temporary employment, Hungary and Slovenia have the least and most restrictive legislation, with index values of 3.4 and 4.8 respectively, while the remaining countries fall in the middle. Although the definition of 'collective dismissal'[7] and most notification requirements are very similar in all these countries, there are some differences regarding the additional delays and costs imposed on employers in the case of collective dismissals vs. individual dismissals. For example, in Poland an additional month delay is required for the notification to take place, while in the Czech Republic the delay amounts to almost four months. Similarly, in Hungary and the Czech Republic there are no additional costs associated with collective dismissals, whereas in the other four countries the employer has to disburse additional severance pay or provide additional compensation, such as retraining or re-employment.

Differences in employment protection legislation not only exists among CEE countries, but also, and to an even greater extent, among the members of the European Union and other OECD members. As already shown by the OECD study (1994, 1999) as well as by Nickell (1997) the EPL index ranges from 0.7 to 3.7 among OECD countries (Figure 1 and Table AI.1)[8]. This large diversity is fully reflected within the EU which includes countries such as the United Kingdom, Ireland, and Denmark which do not have a strict legislation and, at the other side of the spectrum, countries in Southern Europe (Italy, Spain and Portugal) which have by far the most protective legislation (with an EPL index equal to or larger than 3.1). Germany, France, and some Scandinavian countries occupy the middle of the range.

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[5] The thorough reader may consult Table AII.3, Annex II, for details.
[6] Idem. Table AII.4, Annex II.
[7] Dismissal of more than 10 employees.
[8] All tables containing data for OECD and EU countries can be found in Annex I.

Figure 1. Employment Protection Legislation Index in Selected OECD and EU Accession Countries.

Employment Protection Legislation Index
Range: 1 (low) to 6 (high)
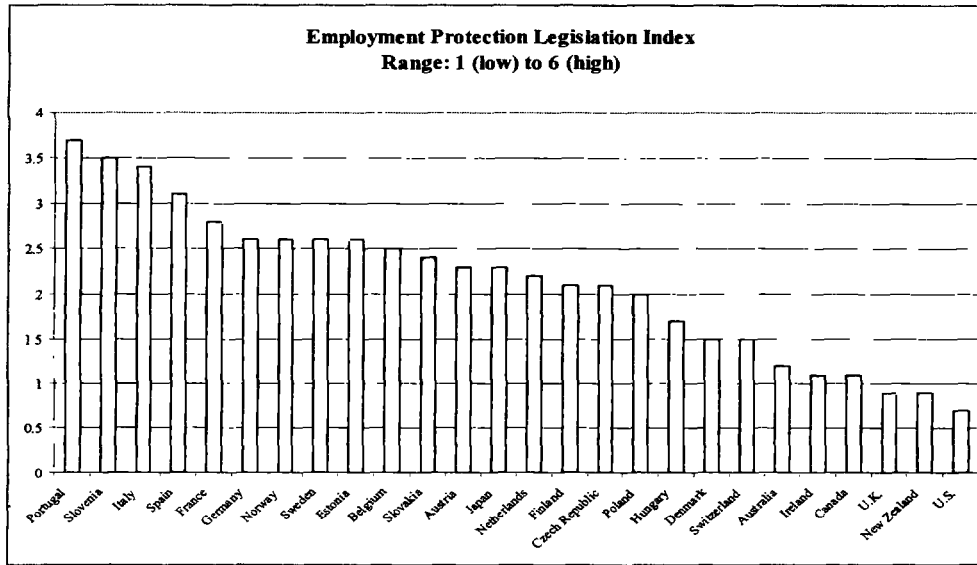
What constitutes no surprise is the comparison with the United States. That comparison does support the frequent assertion that European labor markets are much less flexible than the United States labor market. The United States index is the lowest of all. However, it is closely followed by the Anglo-Saxon countries which are part of the European Union, United Kingdom and Ireland.

The comparison between the two sets of countries shows that CEE countries tend to be in the middle of a "labor market flexibility" scale. Slovenia is the exception and falls at the end of the range (until the new legislation under preparation is approved). Labor markets in CEE are definitely less flexible than in the United States, the United Kingdom or Canada, but certainly not as rigid as in some countries of Southern Europe. Out of a total of 26 countries classified by order of increasing EPL index: (i) Hungary, Poland and the Czech Republic hold positions 9, 10 and 11 respectively, (ii) Slovakia and Estonia hold rank 16 and 18 respectively and (iii) Slovenia is number 25. If Slovenia adopts its new labor code, it would climb up the ladder to rank 16 (Table AI.2).

These cross-country differences in the overall ranking, although not large, are enough to suggest that, when adopting new labor legislation during the transition period, the CEE countries may have been influenced more by geographical or cultural proximity than by the

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desire to imitate a single European model. For instance, Estonia is close to Norway or Sweden in terms of the EPL index, while Slovenia seems closer to Italy or Germany.

B. Passive and Active Labor Market Policies.

We analyze here the different policies adopted by the CEE countries to support the unemployed. We distinguish between passive (i.e. unemployment insurance system) and active policies (i.e. job assistance, training, public works, wage subsidies, etc). While passive labor market policies may create incentives to remain unemployed for a longer period of time, active policies aim at facilitating the re-entry into the labor market. The final impact on unemployment will depend on the features of the various programs, notably their relative generosity and importance in budgetary terms.

We again find that diversity prevails . Although CEE countries have adopted a package of measures similar to those of other European countries, they differ significantly in terms of benefits, coverage and duration of their programs, as well as in terms of their relative preference for passive or active policies.

(i)   Passive Labor Market Policies: Unemployment Insurance (UI)

The generosity (or lack thereof) of a particular unemployment insurance system depends on the quantity and duration of the benefits, and the system's eligibility rules. Hence, we concentrate on these features.

A simple way to compare 'benefit quantity' across the CEE countries is to look at benefit replacement ratios – i.e. initial level of benefits divided by some average measure of previous earned income. Replacement ratios in the CEE countries range from 40 to 64 percent, except in the case of Estonia where this number is 10 percent[9] (Table 2). An alternative way to perform this comparison is to express benefits as a fraction of the minimum and average wages in each country. Then unemployment benefits represent between 60 and 100 percent of the minimum wage, and between 10 and 45 percent of the average wage (Table 3). Although they are within the EU and OECD ballpark (35 to 75 percent), these numbers reveal important differences across countries.

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[9] Unemployment benefits are a function of the minimum wage, rather than of previous earned income. As a result the level of protection, measured by the replacement ratio, is very low, especially for those with high salaries.

Table 2. Features of the Unemployment Insurance System in EU Accession Countries (I).
Late 1990s.

	Benefit RR (%)	Benefit Duration (months)
Czech Republic	50	6
Estonia	10^3	3-6
Hungary	64	12^4
Poland	40^5	$12\text{-}24^6$
Slovakia	60	$6\text{-}12^7$
Slovenia	63	$3\text{-}24^7$
CEE average	$48\ (55)^8$	
EU average[9]	60	
OECD average[10]	58	

Source: OECD Employment Outlook (1995, 1999), IMF World Economic Outlook (1999), IMF Article IV – Consultation with the Slovak Republic, World Bank estimates for Estonia and Slovakia, *Czech Republic: Towards EU Accession* (The World Bank, 1999), *Slovak Republic: A Strategy for Growth and Economic Integration* (The World Bank, 1998).

1/ Description of categories: (i) Benefit RR – Benefit Replacement Ratio – initial benefit level divided by previous earned income, (ii) Benefit Duration – Benefit Duration – maximum duration, in months, depending on various criteria (age, family status, employment record/ contributive history).

2/ Data for Czech Republic, Estonia and Slovenia are from 1998; data for Hungary are from 1997, and data for Poland and Slovakia are from 1996.

3/ Benefits are set at 60% of minimum wage. This amounts to approximately 10% of the average wage.

4/ Requires 4 years of employment.

5/ The replacement ratio is 40% of the average wage for the year prior to unemployment.

6/ Benefit duration increases with previous employment tenure.

7/ Benefit duration is a function of the worker's contributive history.

8/ Figure in parentheses does not include Estonia.

9/ Does not include Greece and Luxemburg.

10/ Average for all OECD countries on Table AI.3.

Benefit duration also varies from country to country. For instance, maximum duration in the Czech Republic and Estonia is 6 months, compared to 12 months in Hungary and Slovakia, or even 24 months in Poland and Slovenia (Table 2). These figures are similar to those in the EU and OECD countries (e.g. 6 months in the United States, 12 months in the United Kingdom, 24 months in Spain, no limit in Belgium).

Table 3. Features of the Unemployment Insurance System in EU Accession Countries (II).

		1991	1992	1993	1994	1995	1996	1997	1998
Czech Republic	Coverage rate		46.5	50.5	47.1	44.2	50.1	51.4	49.2
	% minimum wage		63.8	75.2	83.3	93.5	92.2	102.7	88.1
	% average wage		30.2	28.4	26.6	25.2	23.8	24.0	20.0
Estonia	Coverage rate			56.4	46.3	39.9	45.4	53.6	55.1
	% minimum wage			60.0	60.0	40.0	35.3	28.4	27.3
	% average wage			16.9	10.4	7.6	8.0	6.7	7.2
Hungary	Coverage rate[1]	76.8	78.1	74.1	76.7	79.0	73.5	71.3	73.6
	% minimum wage	75.0	75.0	75.0	75.0	75.0			
	% average wage	28.1	26.9	24.6	23.4	23.3			
Poland	Coverage rate	79.0	52.3	48.3	50.1	58.9	51.9	30.5	22.9
	% minimum wage	100-305	100-310	95.3	98.0	81.0	110		
	% average wage	up to 100	up to 100	36.0	36.0	36.0	45.0		
Slovakia	Coverage rate	82.0	34.0	34.0	23.0	23.0	28.0	27.0	28.0
	% minimum wage				61.7	72.2	70.6	106.9	109.3
	% average wage				24.0	24.6	23.4	31.3	32.8
Slovenia	Coverage rate	40.0	45.0	43.1	42.1	30.3	30.3	32.6	32.6
	% minimum wage[2]	100-300	100-300	100-300	100-300	100-300	100-300	100-300	187.2
	% average wage[2]		32.7	44.1	47.1	43.3	43.4	43.1	43.9

Source: Employment and Labor Market country reports prepared by the European Training Foundation (1999), EBRD Transition Report (1999), Central Bank of Estonia, and OECD Employment Outlook (1999).
1/ Data include (i) unemployment benefits, and (ii) income support once unemployment benefits are exhausted.
2/ Data from the annual reports of the Slovene National Employment Office, the Bank of Slovenia Monthly Bulletin, and *Labor Market Issues in Slovenia* (The World Bank, 1998).

Instead of directly comparing eligibility rules across countries, which would be rather cumbersome, we use the coverage rate as a proxy indicator – i.e. percentage of unemployed receiving unemployment insurance benefits (Table 3). Coverage rates in the Czech Republic and Estonia are around 40-50 percent, having remained fairly stable over the last decade. This has also been the case in Hungary, although coverage is much higher there (70-75 percent). In contrast, the remaining three countries have seen coverage rates fall continuously throughout the 1990s, from 80 to 20 percent in Poland and Slovakia, and from 40 to 30 percent in Slovenia.

Not surprisingly, such differences in benefit quantity and duration, and in coverage rates translate into differences spending in unemployment insurance. The CEE countries spend less than 1 percent of GDP on unemployment insurance, with the exception of Poland where this figure is 1.7 percent (Table 4). Nevertheless, even at this low level, there is significant variation across countries, with Slovenia spending 0.9 percent and Estonia spending less than 0.1 percent.

Table 4. Spending on Passive and Active Labor Market Policies in EU Accession Countries[1].

	Unemployment Rate	Passive policies		Active policies	
		% GDP	Spending per unemployed	% GDP	Spending per unemployed
Czech Republic (1999)	8.8	0.31	0.04	0.19	0.02
Estonia (1998)	9.9	0.08	0.01	0.08	0.01
Hungary (1997)	8.7	0.56	0.06	0.40	0.04
Poland (1996)	14.3	1.71	0.12	0.49	0.03
Slovakia (1996)	11.1	0.54	0.05	0.56	0.05
Slovenia (1998)	7.9	0.89	0.11	0.83	0.11
CEEC average		0.68	0.06	0.42	0.04
EU average[3]		1.73	0.26	1.16	0.16
OECD average[4]		1.43	0.23	0.92	0.14

Source: OECD Employment Outlook (1997, 1999), CEM Slovak Republic, ELFS (1998), RZS (1999).
1/ Data from different years – 1997, 1998 and 1999 (in parentheses)
2/ Spending per unemployed: Ratio of GDP spending on UI to unemployment rate (both in percentage terms.
3/ Does not include Luxemburg.
4/ Average for all OECD countries on Table AI.4.

These aggregate spending figures, however, can be misleading since they are partly a function of the number of unemployed[10]. To correct this caveat, we consider the ratio of GDP spending to the unemployment rate (both in percentage terms) as an alternative measure of expenditure. We then find that these countries have been spending a relatively small amount of resources to support the unemployed (between 0.01 and 0.12 percent of GDP per percentage point of unemployment).

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[10] For example, assume country A and country B have the same unemployment insurance system, but the unemployment rate in country A is double that in country B. Then spending will appear to be higher in country B, even though both systems are equally generous.

These numbers are generally lower than those of EU and OECD members, which devote more than 1 percent of GDP (0.25 percent of GDP per percentage point of insurance unemployment) to unemployment insurance (Table AI.4). In this regard, unemployment

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Box 1. Support to the Unemployed in Selected OECD and EU Accession Countries.

The ratio of GDP spending to the unemployment rate can be also interpreted as the amount out of each dollar produced by a labor force member that is spent on the unemployed. For instance, if the Czech Republic spends in UI 0.04 percent of GDP per percentage point of unemployment, we can also say that out of each dollar produced by a labor force member 4 cents are given to the unemployed in the form of UI.

When we think in these terms, we can see that on average the CEE countries spend 6 cents on passive labor policies out of every dollar produced by a labor force member, and an additional 4 cents in active labor market policies. In contrast, EU (OECD) countries spend 26 (23) cents in passive polices and 16 (14) cents in active policies out of every dollar. This is more than a sevenfold difference (Table B1.1).

However, substantial differences exist among OECD members. The Netherlands, Denmark and Austria are among the countries that spend the most per unemployed worker, with 85 (55), 60 (34) and 32 (14) cents spent on passive (active) policies respectively. When compare to this group, the CEE countries seem to be spending even relatively smaller amounts in support of the unemployed.

Table B1.1 Spending on Passive and Active Labor Market Policies[1].

	Passive policies		Active policies		Total	
	% GDP	Spending per unempl.[2]	% GDP	Spending per unempl.[2]	% GDP	Spending per unempl.[2]
EU average[3]	1.73	0.26	1.16	0.16	2.89	0.42
OECD average[4]	1.43	0.23	0.92	0.14	2.35	0.37
OECD – high spending						
Netherlands	2.81	0.85	1.80	0.55	4.61	1.40
Denmark	3.12	0.60	1.77	0.34	4.89	0.94
Austria	1.22	0.32	0.52	0.14	1.74	0.46
OECD – low spending						
United States	0.25	0.06	0.18	0.04	0.43	0.10
Japan	0.52	0.13	0.09	0.02	0.61	0.15
UK	0.82	0.12	0.37	0.05	1.19	0.17
Spain	1.41	0.09	0.81	0.05	2.22	0.14
CEEC average	0.68	0.06	0.18	0.04	0.86	0.10
Czech Republic	0.31	0.04	0.19	0.02	0.50	0.06
Estonia	0.08	0.01	0.08	0.01	0.16	0.02
Hungary	0.56	0.06	0.40	0.04	0.96	0.10
Poland	1.71	0.12	0.49	0.03	2.20	0.15
Slovakia	0.54	0.05	0.56	0.05	1.10	0.10
Slovenia	0.89	0.11	0.83	0.11	1.72	0.22

Source: OECD Employment Outlook (1997, 1999), CEM Slovak Republic, ELFS (1998), RZS (1999).
1/ Data from different years - 1996, 1997 and 1999 (see Table 4).
2/ Spending per unemployed: Ratio of GDP spending on UI to unemployment rate (both in percentage terms).
3/ No data for Luxemburg.
4/ Average for all OECD countries on Table AI.4.

In contrast, countries like the United States, Japan and Spain spend much smaller amounts both on passive and active policies. All three devote between 6 and 13 cents out of every dollar to UI, and between 2 and 5 cents to active policies. These numbers are significantly closer to those of the CEE countries. Hence, even though on average the CEE countries spend less on the unemployed than OECD and EU members, their policies are fairly similar to those of some OECD/EU countries.

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[1] Data for a larger selection of OECD countries can be found on Table AI.4.

policies in CEE countries are closer to those of the United States, the United Kingdom and Southern Europe, than to those of countries in Central and Northern Europe (see Box 1).

(ii)   Active Labor Market Policies

Active labor market policies cover a vast array of programs, including job search assistance and counseling, training for unemployed and youth, employment subsidies, direct job creation and special measures for disadvantaged groups. Given the extensiveness and varied nature of all these different programs, we feel that a detailed discussion and cross-country comparison of their features and roles is beyond the scope of this paper. We therefore limit our analysis to spending in active labor market policies.

The EU accession countries spend between 0.08 and 0.83 of their GDP in active labor market policies (Table 4). Even though these are not large amounts, they reveal important differences across countries – i.e. Slovenia spends a share of her GDP that is ten times higher than that spent by Estonia. When we adjust this measure to account for differences in unemployment rates, these countries spend between 0.01 and 0.11 percent of GDP per percentage point of unemployment.

Although, compared to the EU and the OECD, spending in active labor market policies in these six countries is fairly low on average, substantial variation exists among the former. For example, the United States and Japan spend less than 0.2 percent of GDP on active policies, while the Netherlands spend 0.8 percent (Table AI.4). This suggests that, in general, the CEE countries have followed closely the practices of the first group, hence devoting modest amount of resources to these programs (see Box 1).

(iii)   Relative Weight of Active and Passive Labor Market Policies

When choosing between active and passive policies, the experience of the CEE countries is mixed. Estonia, Slovakia and Slovenia spend almost the same on both types of programs, measured as share of GDP per percentage point of unemployment, while the other three countries favor passive policies over active ones.

In doing this, they are closer to the average OECD member. In fact most countries in the EU and the OECD devote more resources to their passive labor market policies than to their active ones, the exceptions being Italy, Norway and Sweden.

C. Strength of Unions and Tax Burden on Labor.

We discuss here two of the main factors that influence wage formation and determine labor costs; namely the role of unions in the collective bargaining process and the tax burden on labor. We choose to concentrate on these two measures for the sake of comparability between our results for the CEE countries and Nickell's results for the OECD countries.

In most European countries, with the exception of the United Kingdom, trade unions play a significant role in wage determination and, even when the number of unionized workers is fairly low, agreements reached under collective bargaining can extend to non-union members, thus covering a large fraction of the labor force. Furthermore, the impact that collective bargaining can have on wages is likely to depend on the degree of coordination that exists between different unions and employer associations, as well as on the extent to which the government is involved in the negotiation process.

Similarly, payroll and other taxes can increase the cost of labor, even in the absence of upward pressure on wages. Although, in theory, part of the tax burden can be passed onto workers through lower wages, it is not unreasonable to expect that high taxes on labor may have a negative effect on hiring and firing decisions.

We find that, compared to countries in the EU and the OECD, the CEE countries fall in the middle of the range in terms of union strength and coordination regarding collective bargaining. In contrast, they have very high payroll and other taxes, well above those in Spain, Italy or the Netherlands – which set the upper limit in the EU.

(i)   Wage Bargaining: The Role of Unions and Employer Associations[11]

The CEE countries offer a fairly homogenous picture regarding wage bargaining and the role of unions/employer associations. During the last decade, these countries have all started to move away from a centralized wage bargaining system, and towards a more liberalized regime of wage negotiation, and these changes have been especially relevant for newly created firms. As a result, although union density and coverage are still high, there are important differences between the public and the private sectors, with unions holding a much weaker position in the latter.

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[11] Annex III contains a detailed discussion on these issues for each one of the EU accession countries considered in this paper.

We present data on union membership and *de facto* union coverage, as well as on the degree of coordination among unions and employer associations. Membership is measured as the percentage of all salaried workers who belong to a union, while coverage is captured through a coverage index that takes a value of 1 when collective agreements cover less than 25 percent of all salaried workers, 2 if this number is between 26 and 69 percent, and 3 when coverage is above 70 percent. Finally, the degree of union and employer coordination is measured through an index that ranks from 1 (low) to 3 (high).

Union density ranges from a low 34 percent of all salaried workers in Poland, to a reasonably high 62 percent in Slovakia. Union coverage, however, is large (above 70 percent) in most countries, with the exception of the Czech Republic and Estonia (Table 5).

Table 5. The Role of Unions and Payroll Taxes in EU Accession Countries.

	1[1]	2	3		4	5
	Union density (%)[2]	Union coverage index[3]	Coordination		Payroll tax rate (%)	Total tax rate (%)
			Union	Employer		
Czech Republic	42.8	2	1	1	47.5	73.4
Estonia	36.1	2	2	1	33.0	63.3
Hungary	60.0	3	1	2	44.0	81.5
Poland	33.8	3	2	1	48.2	80.0
Slovakia	61.7	3	2	2	50.0	81.0
Slovenia	60.0	3	3	3	38.0	69.1
CEEC average	49.1				43.4	74.7
EU average[4]	44.4				23.5	53.0
OECD average[5]	39.6				19.5	45.4

Source: Columns 1 (except Slovenia) and 2 (except Czech Republic and Hungary) from ILO (1997) World Labor Report 1997-98 and OECD Employment Outlook (1997); data for Slovenia, the Czech Republic and Hungary estimated by the World Bank. Columns 3, 4 and 5 from (i) Deloitte Touche Tohmatsu International - Taxation in Eastern Europe (1997), (ii) Bank of Estonia, (iii) Polish Agency for Foreign Investment, (iv) EIU (1998), and (v) *Labour Regulations in Eastern Europe*, Business Eastern Europe.
1/ All data for 1995, except for Denmark, Ireland, Italy, Spain and Sweden (1993), and estimated data for Slovenia.
2/ Percentage of salaried workers that belong to a union.
3/ 1: less than 25% of salaried workers are covered by collective agreements, 2: between 26 and 69% are covered, 3: 70% or more are covered.
4/ No data for Greece and Luxemburg.
5/ Average for all OECD countries in Table AI.5.

However, this does not translate into high union bargaining power due to low coordination among unions (Table 5). In fact, although sometimes basic guidelines are established through tripartite negotiations with the government, most wage bargaining takes

place at the industry or the firm level and, in practice, in the private sector wages are set by employers.

In contrast, EU and OECD members present a more varied picture. Both union density and union coverage differ substantially across countries, with the United States and Sweden representing the two extremes (Table AI.5). In addition, coordination levels have changed substantially over recent years, with no identifiable unique trend. For example, unions and employer associations in Scandinavian countries and Central Europe tend to coordinate their wage bargaining activities, while very little coordination exists in the United Kingdom or the United States (OECD, 1997; Nickell 1997). This places the CEE countries somewhere in the middle of the range, together with countries like Belgium or the Netherlands.

(ii)   Payroll taxes

Payroll taxes in Eastern European countries are high, even for Western European standards. Rates range from 33 percent in Estonia to 50 percent in Slovakia, while only France, Italy, Spain and Sweden have rates above 30 percent, and in no case higher than 40 percent (Table 5 and Figure 2).

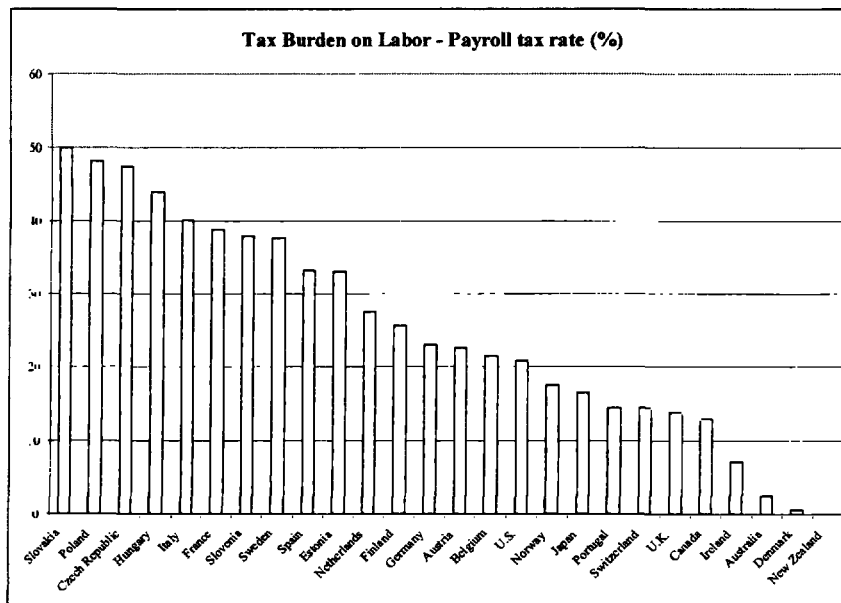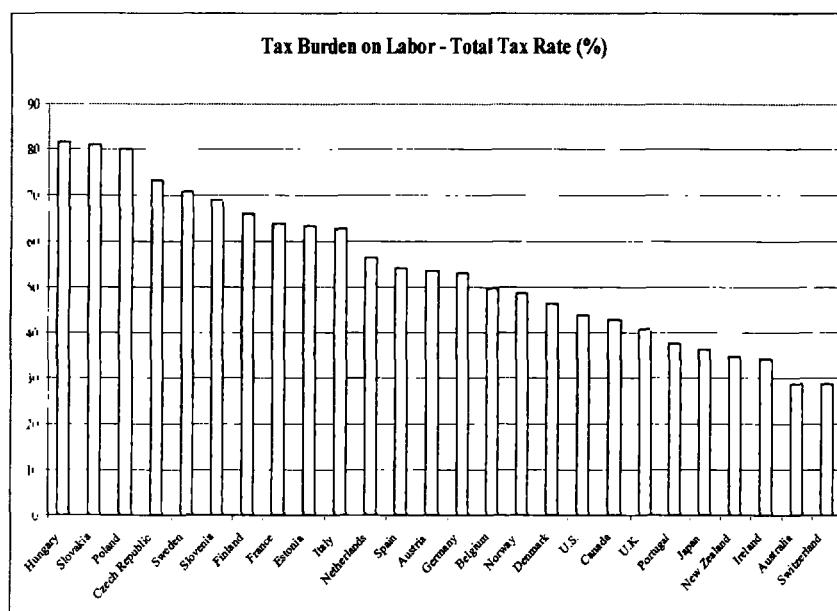**Figure 2. Tax Burden on Labor in Selected OECD and EU Accession Countries.**

Tax Burden on Labor - Payroll tax rate (%)

Figure 2. Tax Burden on Labor in Selected OECD and EU Accession Countries.(cont'd)

Tax Burden on Labor - Total Tax Rate (%)

During the transition period the fiscal pressure to maintain high payroll taxes, or even to increase them, was extremely strong. Unemployment was on the rise and this forced governments to continuously increase spending on unemployment insurance systems and active labor market policies. An aging population and declining employment rates also put additional strain on the public pension system, through falling revenues and increased outlays. Finally, a decrease in other types of tax proceeds due to the economic contraction obliged to look for alternative sources of revenues to cover public expenditures, in particular for health and social assistance.

Despite these problems, some countries have recently started to lower their payroll taxes (e.g. Hungary), albeit at a very slow and gradual pace, and there is reason to believe that other will follow as the economic situation improves, bringing unemployment down.

Moreover, the tax burden on labor exceeds the amount of the payroll tax. Consumption and income taxes also affect labor income and are part of the tax wedge between labor costs and take-home pay. When both consumption and income taxes are considered, the total tax burden on labor varies greatly between countries and Eastern Europe continues to exhibit the highest total tax rates (Table 5 and Figure 2)[12].

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[12] See also Table AI.5 for EU and OECD data.

Thus, according to the evidence presented in this section, we can say that, by the end of the 1990s, the EU accession countries had adopted labor market institutions that indeed resembled those in EU countries. However, in doing so they followed up to neither the most nor the least flexible 'role models', but opted instead for a fairly moderate set of institutions, hence placing themselves in the middle range of the flexibility scale. It is only with respect to payroll taxes that CEE countries stand at the extreme of the range.

III. Output and Labor Market Dynamics in the Transition.

Before trying to assess the role played by labor market institutions in shaping the labor markets of CEE countries, it is important to consider the economic and social context in which these institutions were introduced or modified.

The past decade has been a time of dramatic transformation in Central and Eastern Europe. The fall of the Soviet Block and the transition from command to market economy produced remarkable changes in the social, political and economic infrastructures of CEE countries. From an economic point of view, these changes were most important in real output (as measured by GDP) and factor markets, particularly in labor allocations, as the rules of economic interactions between members of the ex-soviet block, and between them and the rest of the world changed dramatically with the introduction of market-based practices. While in the command-economy system the risk of open unemployment and dislocation due to economic fluctuations was virtually nil, efficiency in the allocation of resources was poor. The rewards that market systems assign to different degrees of human capital or to specific skills were practically undifferentiated, and labor and capital productivity was low. Wages in the command production system were centrally determined and highly compressed. Labor mobility was for all practical purposes non-existent. In a nutshell, job security was the prize, but this came at the expense of efficiency and distorted market incentives, that eventually generated fatigue in the socialist production model.

A. Output

As the old socialist economic model was breaking apart, real output collapsed in every country of the soviet-block, albeit with different intensities (Figure 3). In response, the new leaders of the CEE economies formulated reform strategies focusing on macroeconomic stabilization and structural reforms at the micro level. Modern market structures were

gradually introduced. Labor markets adjusted to the new economic environment by reducing employment and labor force participation, especially of women, which was unusually high in CEE, and by increasing open unemployment to rates unseen in this part of the world.

Figure 3. Evolution of GDP in EU Accession Countries, 1990-2000.
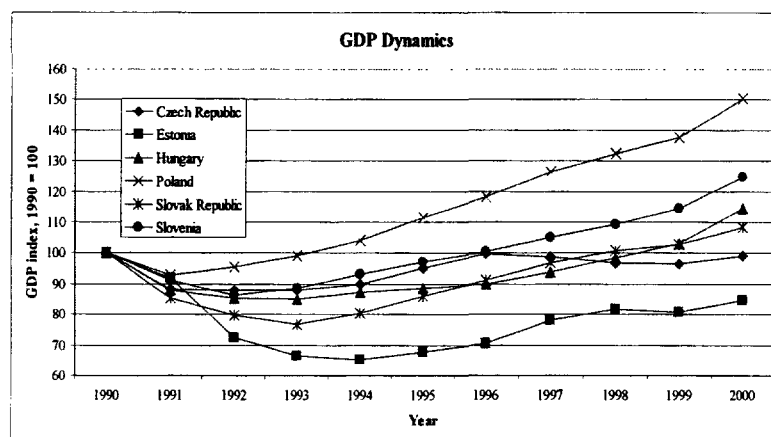
In addition to changes in the level of GDP, the restructuring process involved a significant shift in economic activity across sectors. By 1998 the contribution of agriculture to total GDP had fallen in all countries to at least half its 1989 level (Table 6). A decline also occurred in the industrial sector over the decade, with its share of GDP falling between 7 percentage points for Slovenia (from 45.6 to 38.6 percent) and 27 percentage points for Slovakia (from 58.5 to 31.6 percent). As a result of these changes, the service sector share of GDP grew significantly.

Table 6. Output per sector in EU Accession Countries (% of GDP).

	Agriculture		Industry		Services		Private sector	
	1989	1998	1989	1998	1989	1998	1990	2000
Czech Republic	8.5	4.2	57.7	39.2	33.8	56.6	5.0	80.0
Estonia	21.0	6.3	40.6	26.7	38.4	67.0	10.0	75.0
Hungary	15.6	5.5	46.7	28.2	40.7	66.3	20.0	80.0
Poland	12.9	4.9	52.4	32.0	34.7	62.4	25.0	70.0
Slovakia	9.4	4.4	58.5	31.6	32.2	64.0	5.0	75.0
Slovenia	5.5	4.0	46.6	38.6	48.9	57.4	10.0	55.0

Source: The World Bank (2000) and EBRD Transition Report (2000).
1/ Data for 1997 instead of 1998.
2/ Data for 1991 instead of 1990.

Even more drastic that these sectoral shifts, though, was the transformation of these economies from public sector to private sector dominated economies. The share of GDP produced by the private sector went from a low 5 percent in the old Czechoslovakia in 1990 to

as much as 80 percent in the Czech Republic and Hungary in 2000. Only in Slovenia was this transformation less intense and the private sector , while dominant, is smaller than elsewhere.

B.   Employment, Unemployment, Labor Force Participation and Wages.

The transition had significant repercussions on labor market outcomes, in terms of both levels and composition. The level of employment responded to the initial output decline (Figure 4). As a result, aggregate employment fell substantially at the beginning of the 1990s

Figure 4. GDP and Aggregate Employment Levels in EU Accession Countries.
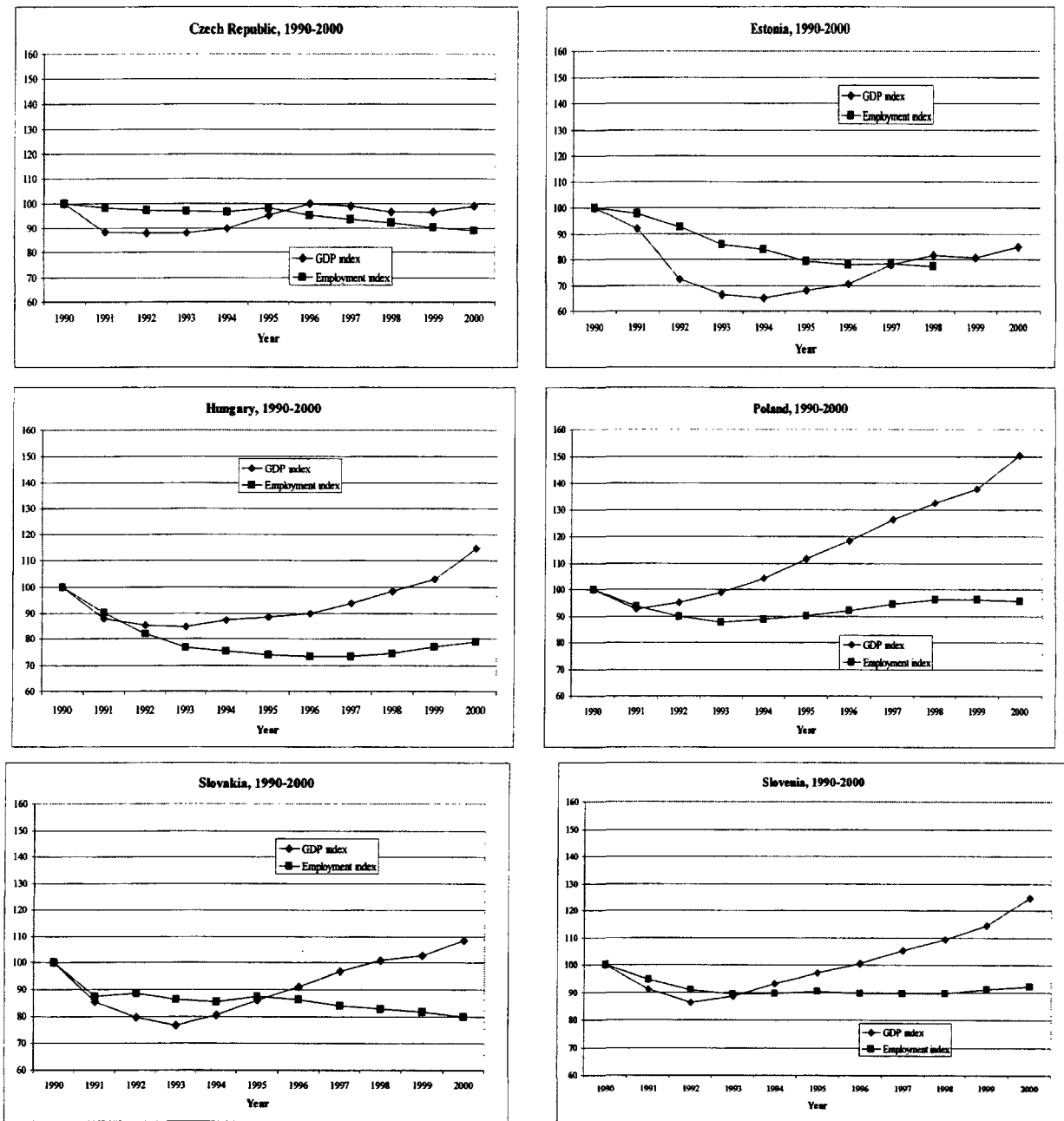
and continued to decline in most countries, although at a slower pace, throughout the decade. However, while output started to grow in the mid nineties and has in some cases surpassed the pre-transition levels (Poland, Slovenia) employment levels have not recovered.

The flip side of such employment performance was, not surprisingly, a substantial increase in unemployment. With the exception of the Czech Republic, all countries saw their unemployment rates move rapidly to double-digit figures during the early 1990s (Figure 5).

Although some of them have been able to bring those numbers down in recent years, high unemployment is still one of the most important concerns to policy makers in the region.

Figure 5. Unemployment in EU Accession Countries.
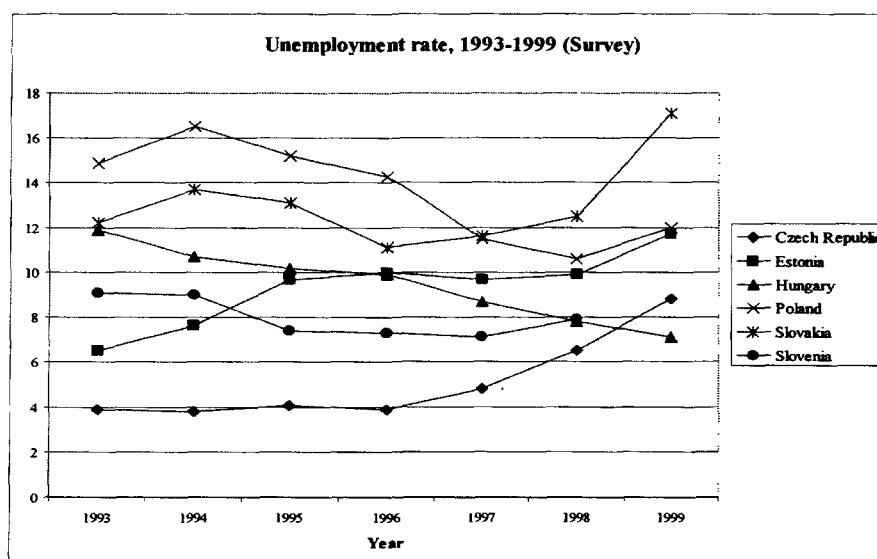
However, unemployment is not the only margin of adjustment when employment creation is weak. In the light of dim employment prospects, jobless workers can decide to exit the labor force, instead of looking for a job. During the transition labor force participation rates fell substantially in these countries (Table 7). This fall was so large in some cases that it brought overall participation rates back to their 1960-64 levels, after continuous increases in the 1970s and 1980s.

Table 7. Labor Force Participation Rates in EU Accession Countries.

		1960-64	1970-74	1980-84	1990-94	1995-99
Czech Republic[1]	All (15-64)	68.46	73.82	76.08	73.40	72.20
	Female (15-64)	49.14	61.62	68.64	69.30	64.00
Estonia	All (15-64)	75.70	81.40	82.00	79.40	78.70
	Female (15-64)	67.30	77.60	78.90	75.90	74.90
Hungary	All (15-64)	68.40	72.60	73.30	68.60	69.00
	Female (15-64)	46.90	57.20	62.10	59.30	60.30
Poland	All (15-64)	75.40	76.50	75.90	73.40	71.80
	Female (15-64)	62.10	67.40	67.70	65.10	65.60
Slovakia[2]	All (15-64)	66.40	68.90	76.40	70.80	69.00
	Female (15-64)	47.30	56.10	69.30	65.10	62.80
Slovenia	All (15-64)	65.90	65.10	74.40	70.70	70.20
	Female (15-64)	44.20	46.20	67.20	64.80	64.80

Source: Martin Rama and Raquel Artecona: "A database of Labor Market Indicators across Countries"
Unpublished, The World Bank.
1/ Data for 1990-99 from OECD. Data for 1960-84 estimated by the authors.
2/ Data for 1990-99 from Lubyova (1999).

In addition, changes in the labor market, however, were not limited to the ups and downs of employment, unemployment or labor force participation. The substitution of centralized commands by market forces as the mode of labor allocation also altered the composition of these pools of workers, as certain worker characteristics become more valuable than others in the labor market. There was significant labor relocation away from agriculture and industry, and toward services, as a consequence of sectoral shifts in economic activity. This relocation was accompanied by a shift in labor demand towards a different skill mix and higher education levels, affecting the level of 'employability' of different types of workers.

As a result, more and more the unemployed became either younger or older workers, or workers with low education or skills, giving rise to patterns that closely resembled those of the unemployed in the EU (see Box 2).

Box 2. Similarities in the Demographics of the Unemployed in Slovakia and Spain.

The evolution of unemployment in the CEE countries has been such that the characteristics of the unemployed resemble substantially those of unemployed workers in most EU countries. To illustrate this point we study the characteristics of the unemployed in Slovakia in 1994-2000 and compare them to the characteristics of the unemployed in Spain, also a high unemployment country, in 1997.

Unemployment rates in Slovakia vary widely with education and age. Consistently unemployment rates have been negatively correlated with education, so that workers with a college education have performed much better than those with primary or even secondary studies (Table B2.1). In addition, differences across education groups have widened over time. While in 1994 the unemployment rate for workers with an apprenticeship degree was 15 percent, compared to 4 percent for those with a college degree, in 2000 these rates were 20 and 5 percent respectively. That is, while in 1994 the unemployment risk of a worker with an apprentice degree was three times that of a worker with a college degree, in 2000 the unemployment risk of the former was five times that of the latter.

Table B2.1 Unemployment rates by education levels. Slovakia.

	1994	1995	1996	1997	1998	1999	2000
Less than basic	44.2	39.5	64.3	66.7	88.5	NA	NA
Basic	27.4	26.9	23.7	27.6	25.8	33.60	39.0
Apprenticeship low	14.4	13.1	10.8	11.0	12.7	17.40	20.6
Vocational low	13.6	12.7	10.0	11.3	10.8	18.95	19.9
Apprenticeship complete	15.3	9.5	8.1	10.6	9.6	15.60	19.6
Vocational complete	9.8	7.1	7.4	8.2	8.7	13.10	14.0
Grammar	13.1	14.3	11.8	14.6	13.8	17.12	17.7
University (+)	3.8	2.9	3.4	3.2	4.2	5.50	4.8

Source: Slovak Labor Force Survey.

Unemployment has also been much higher among young workers (15 to 24 years of age) than among prime-age ones (Table B2.2). However, unlike in the previous case, relative differences across the two groups have been fairly stable over time, with unemployment rates increasing by about 40 percent for both groups between 1994 and 2000. As a result, the unemployment risk of a young worker has remained at a level that is about twice that of prime age workers.

In contrast, unemployment has been systematically lower among older workers than among prime-age ones. This, however, responds to differences in participation rates between both groups rather than to a relative preference for older workers among employers. What is more importantly is that such a difference has become smaller over time, as the risk of unemployment among older workers has increased by 65 percent compared to 40 percent for prime-age ones.

Table B2.2 Unemployment rate by age groups. Slovakia.

	1994	1995	1996	1997	1998	1999	2000
15-24	26.5	22.4	19.4	23.5	26.6	33.7	35.9
25-49	11.5	10.4	9.2	9.8	9.5	13.8	15.8
50-64	8.2	7.1	5.7	6.6	6.8	10.2	13.4

Source: Slovak Labor Force Survey.

Finally, when we compare the characteristics of the Slovak and the Spanish unemployed we find them to be fairly similar - unemployment rates are high among the least educated and the young (Table B2.3).

Table B2.3 Unemployment rate by education and age groups. Spain, 1998.

Education groups	% unemployed in group	Age groups	% unemployed in group
Less than upper sec.	17.0 (12.6)[1]	**15-24**	34.1
Upper Secondary	15.3 (10.0)	**25-49**	16.5
College (+)	13.1 (8.5)	**50-64**	10.3

Source: Spanish Labor Force Survey.
1/ Data for male unemployment between parentheses.

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Finally, real wages fell in most countries as a consequence of rising inflation levels. However, the decline was perhaps less than necessary. Real wages needed to decline to facilitate the reallocation of labor, but in some countries like Hungary, Poland, real wages (when measured with a production price index) did neither fall rapidly nor did they fall enough to facilitate the reallocation of workers and even in some countries like Slovenia real wages actually grew, rather than decline (Table 8).[13] This reduced job turnover and prevented a more rapid absorption of the growing unemployment.

Table 8. Real Wages in EU Accession Countries: Growth Rate and Level.

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Czech Republic	real growth		-26.3	10.2	3.7	7.7	8.7	8.8	1.9	-1.3	4.5
	index (1990=100)	100.0	73.7	81.2	84.2	90.7	98.6	107.3	109.3	107.9	112.7
	after initial decline index (1991=100)		100.0	110.2	114.3	123.1	133.8	145.6	148.3	146.4	153.0
Hungary	real growth	-0.2	-3.7	1.7	-0.5	5.1	-8.9	-2.6	3.4	3.5	
	index (1990=100)	100.0	96.3	97.9	97.4	102.4	93.3	90.9	94.0	97.3	
	after initial decline index (1991=100)	103.8	100.0	101.7	101.2	106.4	96.9	94.4	97.6	101.0	
Estonia	real growth		15.0	-59.4	2.3	10.1	6.2	2.1	7.6	6.7	3.7
	index (1990=100)	100.0	115.0	46.7	47.8	52.6	55.8	57.0	61.4	65.5	67.9
	after initial decline index (1992=100)			100.0	102.3	112.7	119.6	122.1	131.5	140.3	145.4
Poland	real growth	-24.4	-0.3	-2.7	-2.9	0.5	3.0	5.7	6.8		
	index (1990=100)	100.0	99.7	97.0	94.2	94.7	97.5	103.1	110.1		
	decline prior to 1990										
Slovakia	real growth	-5.6	-26.3	8.9	-3.8	3.0	4.3	7.1	6.5	2.8	
	index (1990=100)	100.0	73.7	80.3	77.2	79.5	82.9	88.8	94.6	97.3	
	after initial decline index (1991=100)		100.0	108.9	104.8	107.9	112.5	120.5	128.4	132.0	
Slovenia	real growth		12.0	0.7	11.7	4.7	5.1	5.1	2.4	1.6	
	index (1990=100)	100.0	112.0	112.8	126.0	131.9	138.6	145.7	149.2	151.6	
	no initial decline										

Source: Employment and Labor Market country reports prepared by the European Training Foundation (1999), and Central Bank of Estonia.
1/ Hungarian Statistical Office.
2/ Polish Statistical Office.
3/ Slovak Statistical Office.
4/ Data for 1993-99 from Slovene Statistical Office (rate of growth of gross real wages).

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[13] In spite of these developments, unemployment remained low in Slovenia as a result of the privatization process that generated low dynamics in the labor market.

IV. What Explains these Labor Market Dynamics?

Labor market dynamics can be seen as the outcome of interactions between labor market institutions and other economic forces. In the case of CEE countries, the fall of the Soviet Union and the transition from command to market economy were the sources of tremendous economic shocks that necessarily interacted with the labor market.

Thus, whatever impact institutions may have had in the determination of labor market dynamics, they were clearly not the only factors affecting labor market outcomes in CEE during the transition years, particularly during the early transition. Factors outside the labor market had an enormous impact and were the driving force behind the significant shifts observed in the labor market at the beginning of the transition. Big changes in employment, unemployment, and labor force participation could not have happened without stabilization policies and structural reform measures. The relevant question is whether the newly introduced labor market institutions facilitated (or hindered) these changes and to which extent they affected the structure and composition of supply and demand.

This section analyzes first, labor market performance during the transition from the perspective of the impact of other reform policies that affected labor market outcomes. We pay particular attention at the role of macroeconomic stabilization and structural reform policies, and their impact on labor market outcomes. Second, we turn our attention to a discussion of the role of labor market institutions.

A.   *Macroeconomic Stabilization Policies*

Initial conditions were an important factor in shaping dynamics of the transition process, rather than its outcome, since large heterogeneity existed among CEE economies. The degree of centralization and state control, imbalances in macroeconomic fundamentals, both domestic and external, the level of public indebtedness and the degree of interaction with the West varied tremendously among CEE countries before the transition. This heterogeneity, in conjunction with the developments in the political elite structure, influenced the policy agenda of reform in a number of areas, including the speed of reforms, how much FDI was embraced as a restructuring tool, the mechanism of privatization of state assets, the rigidity in the imposition of hard budget constraints, the degree of fiscal adjustment, and the design of the monetary policies and the exchange rate regime. Through many of these channels, the

dynamics of the labor markets were affected as the CEE economies redefined their economic interactions.

The need to cope with macroeconomic stabilization in the early stages of the transition focused the authorities to implement reform strategies that affected labor and other factor markets. Inflation was an important source of concern; particularly in Estonia where annual inflation rates peaked at 1,069 percent in 1992, but also in Poland and Slovenia (Table 9). Tight monetary policy was essential to establish control over inflation. Some countries also opted to use the exchange rate as a nominal anchor in an attempt to cope with inflationary pressures. This, with a loose fiscal stance limited credit to the private sector in many countries, slowing down the absorption of the unemployed.

Table 9. Inflation Rates in EU Accession Countries.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Czech Republic	10	57	11	21	10	9	9	9	11	2	4
Estonia	23	211	1069	90	48	29	23	11	8	3	8
Hungary	29	35	23	23	19	28	24	18	14	10	10
Poland	586	70	43	35	32	28	20	15	12	7	12
Slovak Republic	10	61	10	23	14	10	6	6	7	11	9
Slovenia	550	118	207	33	21	14	10	8	8	6	8

Sources: SIMA (WDI database and Unified Survey FY01 database), National Authorities, IMF, and the Bank country team estimates.
1/ Year-to-year change in annual Consumer Price Index, in percentage.

The need to ensure fiscal sustainability forced the authorities to impose fiscal discipline and strong fiscal adjustment measures. As a result, fiscal policy changed its supportive role. This in turn reduced the availability of prevailing support mechanisms to the economy, both in the form of price supports and direct or indirect subsidies de facto imposing hard budget constraints to public enterprises and forcing their restructuring (Table 10).

Table 10. Subsidies to the Enterprise Sector in EU Accession Countries (% of GDP)

	1989	1993	1994	1995	1996	1997
Czech Republic	25.0	4.4	3.1	2.7	2.2	2.4
Estonia			0.9	0.5	0.4	0.3
Hungary	12.1	4.1	4.5	3.8	3.9	3.3
Poland	12.9	3.0	3.3	2.9	2.5	2.4
Slovak Republic	25.0	4.8	3.2	2.8	2.4	2.2
Slovenia			1.6	1.6	1.2	1.3

Source: IMF (1994), World Bank (2000).

Overall, macroeconomic stabilization policies helped to impose hard budget constraints on the CEE economies and encouraged enterprise restructuring, which forced the reallocation of labor and other factors of production from inefficient sectors and activities to efficient ones. This produced enormous shifts in labor demand (and supply) moving away from industrial and agricultural activities into services, and from the public to the private sector. In conjunction with price liberalization policies, the imposition of hard budget constraints triggered the breakdown of state enterprises and helped to encourage the development of a new private sector. At the same time it fostered enterprise sector restructuring, changing the face of the CEE labor markets. As a result, unemployment appeared as a real and open phenomenon in CEE, one that will require the attention of the authorities for years to come. Labor force participation rates also changed significantly, particularly with the withdrawal of females from the labor force and the use of early retirement schemes in some countries to cope with the growing unemployment. These changes reshaped labor markets in CEE and brought them to resemble European labor markets

B.   Structural Reforms

Structural reforms played an even more important role in the shaping of the dynamics of labor markets during the transition. Market institutions were introduced in CEE via structural reform policies that liberalized trade and domestic prices, eliminated many state monopolies (particularly important was the monopoly in the banking systems), privatized state enterprises, promoted (or abstained from hindering) the development of a dynamic private sector, facilitated competition and efficiency, and redefined property rights and the legal and regulatory systems. These reforms were critical to reshape the new CEE economies

and had a dramatic impact on labor and other factor markets, encouraging reallocation and restructuring in the real sector.

With the liberalization of prices, the removal of restrictions to private sector development and the reduction in direct and indirect subsidies hard budget constraints were imposed to state firms, many of which could not cope with the new market conditions and the competition of the growing private sector. The state sector declined, shedding labor while the private sector was growing. However, resources released from the public sector were not fully absorbed by the private sector. In part this was the result of skills mismatch, as the new production platforms demanded higher educated workers, and workers with different skills, but the lack of absorption capacity was also the result of other factors including a weak financial sector that was not capable to intermediate resources effectively, thus limiting the availability of credit to the new private sector.

Banking crises compounded the credit problem affecting the capacity of firms to grow and generate more employment opportunities. As a result of all these factors employment declined and unemployment grew rapidly in the newborn market economies. As mentioned above, employment levels have not recovered despite the return of strong output growth, thus increasing productivity throughout the 1990s (Figure 6).

Figure 6. Evolution of Aggregate Employment in EU Accession Countries.
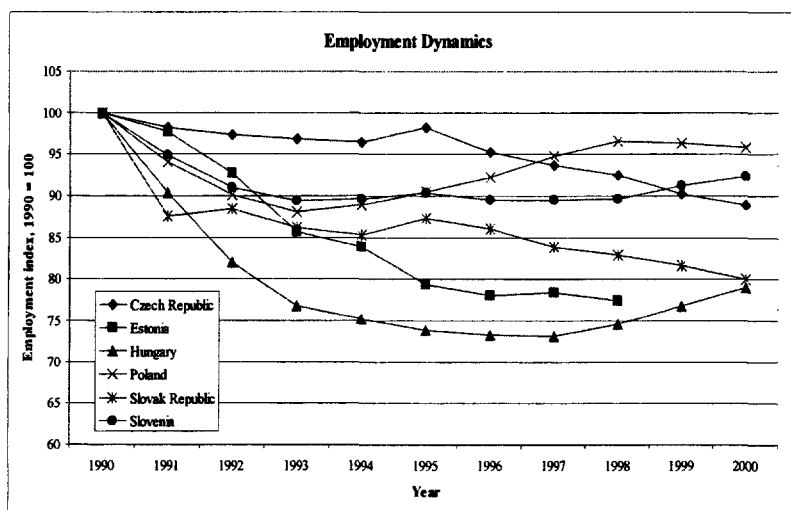
While the factors mentioned above were common in most transition economies, the dynamics of labor markets varied from country to country as a rainbow of policy options were implemented. Some countries, like Poland, used early retirement schemes to cope with the growing open unemployment, others, like Slovenia, used the privatization process to slow down or even delay the adjustment of labor, maintaining the structure of employment as much as possible and reducing the speed of reform. The use of a mix of different policies explain the different labor adjustment dynamics.

Privatization played a critical role in shaping these labor markets dynamics, accelerating or retarding the adjustment in the real sector and turnover in labor markets. Different modalities of privatization of state assets were introduced, from restitution and insider's buyouts (sometimes at a discount) to management control and strategic investors involvement. Mass privatization schemes and direct sales to outsiders (both domestic or foreign) completed the picture (Table 11). These different privatization techniques implied different degrees imposition of hard budget constraints to the firms and thus different adjustment paths.

Table 11. Privatization Modalities for Medium and Large Enterprises in EU Accession Countries.

	Insider Buyouts		Mass Privatization Program		Sales to Outsiders		Other[5]
	Employees[1]	Managers[2]	Equal Access for the Whole Population	Concessions to Insiders	Large foreign share[3]	Little foreign share[4]	
Czech Republic			Primary			Secondary	Tertiary
Estonia		Secondary			Primary		Tertiary
Hungary	Secondary				Primary		Tertiary
Poland	Primary		Secondary				
Slovak Republic		Primary	Secondary				
Slovenia	Secondary			Primary			Tertiary

Source: World Bank (2000).
1/ Employees' share exceeds 75 percent of total assets privatized.
2/ Management share exceeds 25 percent of total assets privatized.
3/ Foreign share is more than 25 percent of total assets sold.
4/ Foreign share is less than 25 percent of total assets sold.
5/ Includes restitution, and assets sales through insolvency proceedings.

Employment, unemployment and labor force participation levels were affected by the privatization options used in combination with other structural reforms policies and the degree of flexibility of labor markets. For example, in Slovenia job turnover was slow as most firms were privatized to insiders (managers, workers and pensioners) maintaining the status quo. Estonia and Hungary focused more on attracting foreign strategic investors, accelerating the adjustment process and boosting job turnover.

The initial reform focus was on privatization and restructuring of state enterprises rather than on facilitating the development of new firms in the manufacturing sector. With time small and medium size enterprises (SMEs) started to emerge in the manufacturing sector, in spite of the limitations imposed by the weak credit markets. With hindsight more support may have been needed to SMEs which have become not only one of the key engines of growth, but also one of the few areas were new job opportunities have been created in the manufacturing sector. Privatized firms engaged much more in job destruction than in job creation, relying on increases in productivity to survive.

Other economic policies (or the lack of thereof) also affected the dynamics of key labor market variables. For instance, the housing stock was determined by the needs of the previous production model, thus limiting the capacity for labor mobility and reallocation during the transition. This bottleneck was reinforced by a poorly develop (sometimes non existent) mortgage market. As a result, regional disparities in labor market outcomes emerged.

C. *Labor Market Institutions*

From the previous analysis clearly emerges the conclusion that labor market dynamics in CEE countries were significantly affected by the structural reform agenda. The sharp decline in total employment and relative increase in private sector employment, the shift in economic activity and reallocation of labor between sectors, the changes in skill mix and the reduction in real wages that were observed over one decade would not have happened without wide-ranging structural reforms.

What has, then, been the impact of labor market institutions? Should we consider it as modest and relatively unimportant? Although data limitations do not permit us to perform a thorough econometric analysis[14], we use evidence drawn from previous research to make a

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[14] Another caveat is the impossibility to evaluate the degree of enforcement of regulations and policies.

number of observations that invite to a more cautious conclusion. In particular, we believe that labor market institutions may have contributed to shaping the adjustment of key labor market variables, affecting the rhythm of reform, even though their impact may have "masked" by the dramatic impact of other reforms.

First, employment levels have not recovered. Although output started to grow in the mid-nineties and has in some case surpassed the pre-transition levels (Poland, Slovenia),

Figure 7. Correlation between GDP and Aggregate Employment Growth Rates in EU Accession Countries.
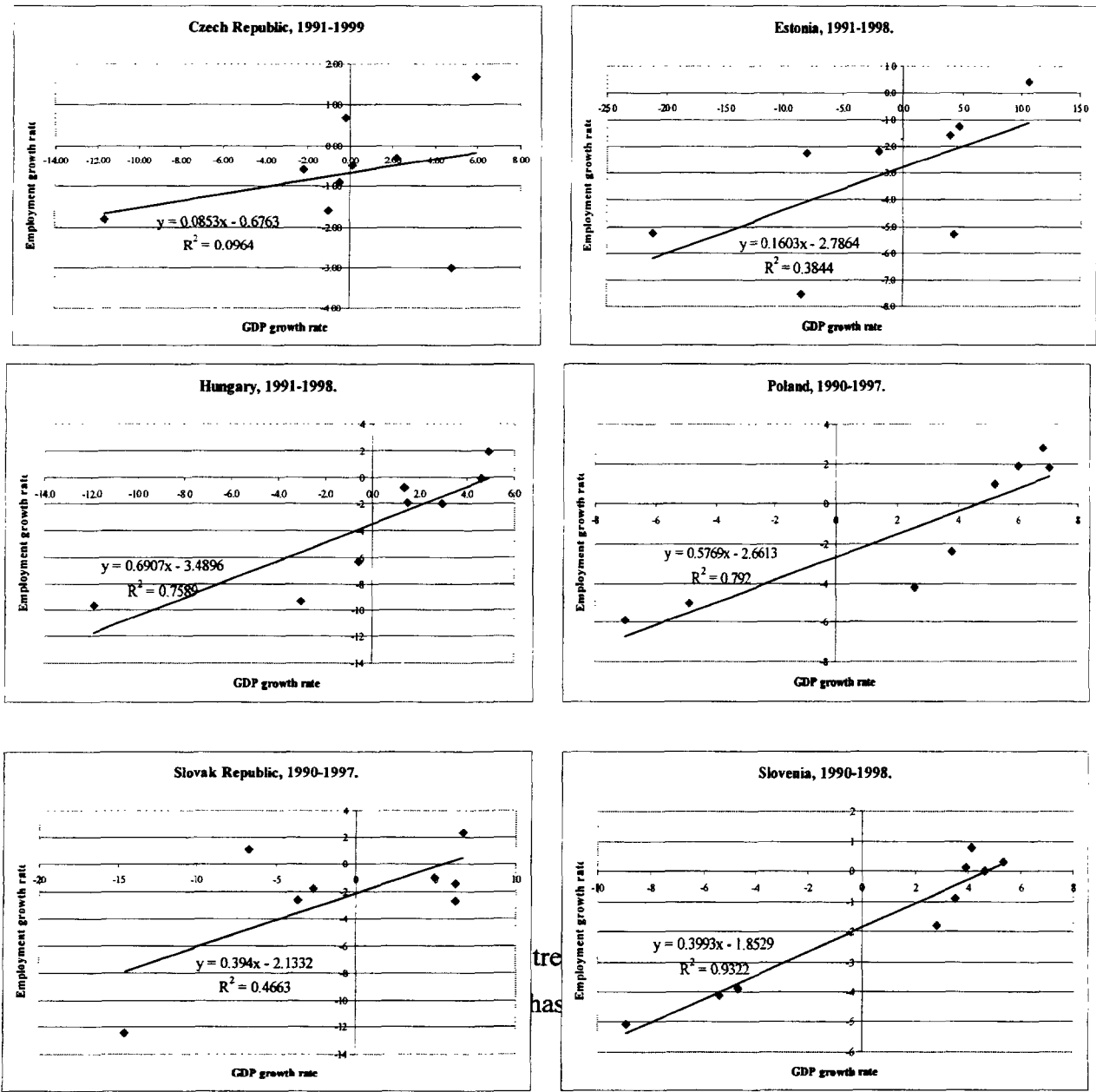
This is obviously a source of concern as employment-to-population ratios in CEE are among the lowest among EU and OECD countries (Table AI.8). Theory and past research does suggest that employment levels may be affected negatively by job security provisions (Lazear, 1990, Bertola, 1990, Hopenhayn and Rogerson, 1997). For example, Lazear (1990) using data from 22 countries (from Europe and OECD) over a period of 29 years, shows that job security provisions - by increasing both the costs of hiring and laying off workers - reduce the employment-to-population ratio and increase unemployment. A similar conclusion is reached by Heckman and Pages (2000) who analyzed data from Latin America and the Caribbean. Although the view that regulations have no substantial impact also prevail in the literature (Blank and Freeman, 1994; Freeman, 2000), one cannot dismiss the possible negative impact of regulations on total employment.

Second, long-term unemployment is high among CEE countries, another feature that has been found as associated with stricter employment protection (Bentolila and Bertola, 1990; Nickell, 1997; Nickell and Layard, 1998). The unemployment pool of CEE economies has remained a fairly stagnant one, with low worker turnover and increasing numbers of long-term unemployed individuals. Unemployment inflows and outflows, that is workers moving in and out of unemployment, represented on average less than 10 percent of the overall stock of unemployed individuals. This lack of dynamism meant that the probability that the average unemployed individual left the unemployment pool was small and, thus, over time more and more individuals became unemployed for more than a year. In fact, in most countries of the sample the share of long-term unemployed has grown throughout the 1990s (Table 12).

Table 12. Short- and Long-Term Unemployment in EU Accession Countries.

		1993	1994	1995	1996	1997	1998	1999	1993-1998
Czech Republic	SRU[1]	3.2	3.0	2.8	2.7	3.3	4.5	5.5	3.3
	LTU[2]	0.7	0.8	1.3	1.2	1.5	2.0	3.3	1.2
	% LTU[3]	18.3	21.5	30.6	31.3	30.5	31.2	37.1	27.2
Estonia	SRU	4.7	4.6	6.6	4.5	5.2	5.2		5.1
	LTU	1.8	3.0	3.1	5.5	4.4	4.6		3.8
	% LTU	27.6	39.5	31.9	55.0	45.8	46.9		42.7
Hungary	SRU	8.1	6.3	5.5	5.0	4.7	4.3	3.6	5.6
	LTU	3.8	4.4	4.7	4.9	4.0	3.5	3.5	4.2
	% LTU	32.2	41.3	45.6	49.8	46.5	44.3	49.5	43.3
Poland	SRU	9.9	10.1	9.0	8.6	7.0	6.6		8.5
	LTU	5.0	6.4	6.2	5.7	4.5	4.0		5.3
	% LTU	33.5	38.6	40.5	40.0	39.1	37.9		38.3
Slovakia	SRU	8.5	8.0	6.1	5.3	5.7	6.0	8.7	6.6
	LTU	3.7	5.7	7.0	5.8	5.9	5.9	8.4	5.7
	% LTU	30.2	41.6	53.1	52.7	51.5	49.7	49.1	46.4
Slovenia	SRU	2.9	2.3	1.8	2.4	2.1	1.8		2.2
	LTU	6.2	6.8	5.6	4.9	5.3	6.1		5.8
	% LTU	68.5	75.0	75.5	67.3	71.5	77.8		72.6
CEE average	% LTU	35.0	42.9	46.2	49.3	47.5	47.9	45.2[4]	45.1
EU average	% LTU	41.4[5]	42.8[6]	45.8	45.3	45.6	43.9[7]	41.2[7]	44.1
OECD average	% LTU	39.1[5]	40.4[6]	43.2	42.7	43.0	41.1[7]	39.0[7]	41.6
United States	% LTU	11.5	12.2	9.7	9.5	8.7	8.0	6.8	9.5

Sources: OECD-CCET Labor Market Database 1990-1997, Slovene Labor Force Survey, and Estonian Labor Force Survey (1995 and 1997).
1/ Short-term unemployment.
2/ Long-term unemployment.
3/ Percentage of total unemployment due to long-term unemployment.
4/ Includes only the Czech Republic, Hungary and Slovakia.
5/ Does not include Austria.
6/ Does not include Finland.
7/ Does not include Ireland.

In this respect, CEE countries do resemble other European countries. In contrast, long-term unemployed do not represent more than 7 percent of the pool of unemployed in the US – which has by far, the most flexible labor market.

In sum, although no firm conclusion can be reached, it is worthwhile noting that these two features - low job creation and high long-term unemployment – have often been

identified as associated with inflexible labor markets. Both may become the source of social tensions and increasingly weigh on public budgets.

Third, it is hard to imagine that changes in the age and sex composition of the labor force have not been – at least partly – the result of institutional changes (introduction of unemployment benefits, early retirement schemes, reduction of child care support). Indeed, the overall decline in labor force participation rates that we described in Section III (Table 7) masks significant differences across demographic groups, with participation rates falling the most among women and older workers. The reduction in the amount of child care support provided by the state and the subsequent increase in child care prices, combined with a decline in the number of child care centers and the tightening of social assistance for mothers with small children, led numerous women to exit the labor force to attend their children. Similarly, the existence of support for the unemployed made it easier for employers to dismiss workers and early retirement schemes made it more attractive for older workers to exit the labor force. In many countries, those schemes were used as a device to control unemployment among this particular group of workers.

High exit rates among certain groups of workers thus helped keep the unemployment rate below potentially higher levels. For example, in Hungary, the labor force participation rate fell to 11% for women aged 55-64, and to 30.8% for men in 1999 (compared to an EU average of 30.5% and 52.7% respectively) Moreover, 'selected exit', combined with the labor market entry of large numbers of young, more educated workers, substantially altered the overall composition of the labor force in the CEE countries. Whether labor force participation rates can remain at low levels for long periods of time without incidence on the sustainability of benefit systems may become an issue in some of these countries.

Fourth, CEE countries stand out relative to EU countries with respect to payroll taxes (and overall tax burden on labor) which are at the high end of the range (Table 5). While past research has not shown clear evidence of the impact of high labor taxes on the level of employment, there is the presumption that high taxes on labor create incentives for self-employment and an increase in the informal sector. In this regard, the effect of high payroll

taxes may add to the effect of employment protection legislation[15]. Available data for CEE are scanty and subject to measurement errors but they suggest that this hypothesis may be relevant as the size of the informal sector in CEE countries is not insignificant. (Table 13).

Table 13. Share of Unofficial Economy in EU Accession Countries.

	1989	1990	1991	1992	1993	1994	1995
Czech Republic	6.0	6.7	12.9	16.9	16.9	17.6	11.3
Estonia	12.0	19.9	26.2	25.4	24.1	25.1	11.8
Hungary	27.0	28.0	32.9	30.6	28.5	27.7	29.0
Poland	15.7	19.6	23.5	19.7	18.5	15.2	12.6
Slovakia	6.0	7.7	15.1	17.6	16.2	14.6	5.8
Slovenia							

Source: "Politics and Entrepreneurship in Transition Economies", Johnson *et alia* (1997).

It is important to emphasize that there is significant variation across the EU accession countries both in terms of the kinds of labor market institutions adopted and in terms of labor market outcomes, and that significant patterns emerge relating the two. In general, those countries that have undertaken more radical and liberal reforms appear to have more fluid and dynamic markets, with larger job and worker flows (Vodopivec, 1999; Haltiwanger and Vodopivec, 1999; Bilsen and Konings, 1998). For example, when we compare employment accession and separation rates across countries, we find that Hungary, one of the most reformist countries, exhibits much larger flows than Slovenia, a moderate reformist (Table 14). We illustrate this point further by comparing job and worker flows in Estonia and Slovenia in Box 3.

Table 14. Employment Accession and Separation Rates in EU Accession Countries.

		Accession Rate	Separation Rate
Czech Republic	(1994-98)		9.0
Estonia	(1989-91)	15.5	16.2
	(1992-94)	27.3	29.3
	(1995-97)	19.3	19.0
Hungary	(1991, state firms)	20.6	30.5
Poland	(1991)	13.0	28.0
Slovakia			
Slovenia	(1989-95)		13.0
	(1990-96)	13.2	18.2

Source: Vodopivec (1999).

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[15] Recent literature (Marquez, 1998; OECD, 1999; Kugler, 2000) suggests that job security provisions provide incentives for self-employment and operation in the informal sector.

Box 3. The Importance of Institutions:
Job and Worker Flows During Transition in Estonia and Slovenia.

Following Haltiwanger and Vodopivec (1999), and Vodopivec (1999) we compare the experiences of Estonia and Slovenia to emphasize the role that labor market institutions played in shaping up labor market outcomes during the transition. The pace of institutional reform followed in both countries differed substantially, and these differences had a significant impact on job creation and destruction, and on worker accession and separation rates. While Estonia pursued extremely liberal, radical reforms, Slovenia retained a considerable degree of employment protection and adopted much more generous income support policies (Table B3.1).

Table B3.1 Comparison of Labor Policies in Transition.

|	Estonia	Slovenia
Policy	Change relative to pre-transition	Change relative to pre-transition
Employment Protection	Job security removed Liberal dismissal policies No job preservation subsidies	Job security removed Restrictive dismissal policies Job preservation subsidies
Unemployment benefits	Duration: Maximum of 6 to 9 months Replacement ratio: 10%	Duration: Maximum of 24 months Replacement ratio: 60-70%
Wage policies	Low minimum wage Low tax wedge	High minimum wage High tax wedge
Collective agreements	Low density and coverage	High density and coverage
Privatization	Individual sale methods	Mixed methods
Foreign trade	No tariffs/quotas on imports	Up to 28% tariff rates
FDI 1989-96	Cumulative inflow per capita: $459	Cumulative inflow per capita: $366
Maternity leave	Increased from 1.5 to 3 years plus 10 weeks pregnancy leave	Remained at 1 year
Public childcare	Price increases 14% decrease in number of centers	1% increase in number of centers
Income support	Up to 4 year extension of UI for women with children under 6	No change

Source: Orazem and Vodopivec (1999)

The authors show that in Estonia both job destruction and, with a lag, job creation rates increased tremendously during the transition. In contrast, more protectionist and generous policies in Slovenia resulted in much lower rates. For instance, job creation rates –for which differences between both countries are biggest – were at or below 1 percent a year in Slovenia during 1989-94, while they kept increasing up to 10 percent in Estonia. In addition, job destruction rates differed significantly between both countries. In Estonia job destruction grew rapidly from 1989 to 1992, going from almost 0 percent to 14 percent, to decline slightly afterwards. In contrast, the Slovenian rate started to exhibit a declining trend as early as 1991 and always remained below 60 percent of the Estonian rate (Figure B3.1).

It is also interesting to note that the comparison with Slovenia does not seem to be a special case since job flows in Estonia are also much higher than those reported for some other non-radical reformers such as Bulgaria, Hungary or Rumania (Bilsen and Konings, 1998).

Box 3 (continued).

The differences in employment accession and separation rates are even more striking. While Estonia underwent a period of tremendous worker turnover (i.e. high accession and separation rates) between 1989 and 1994, worker flows remained fairly stable in Slovenia (Figure B3.2), exhibiting almost no trend.

Figure B3.1 Rate of Job Destruction in Estonia and Slovenia during Transition
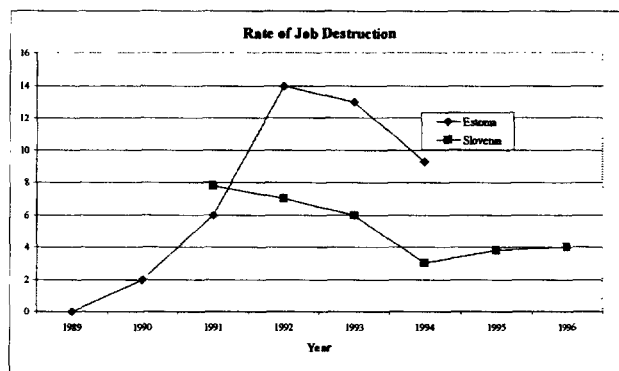
These differences in job and worker flows between the two countries are attributed by the authors to differences in both labor market institutions and speed of reforms (for instance, as mentioned earlier, there were substantial differences in their approach to privatization).

Figure B3.2 Employment Accession and Separation in Estonia and Slovenia during Transition
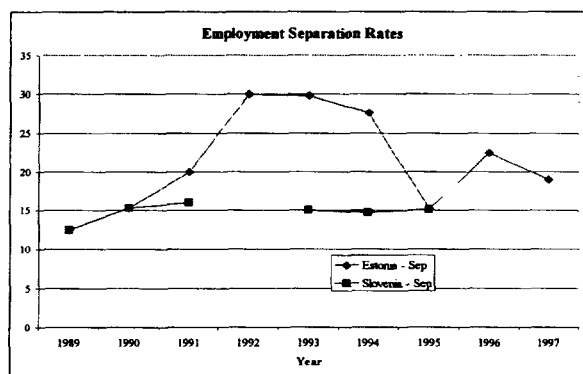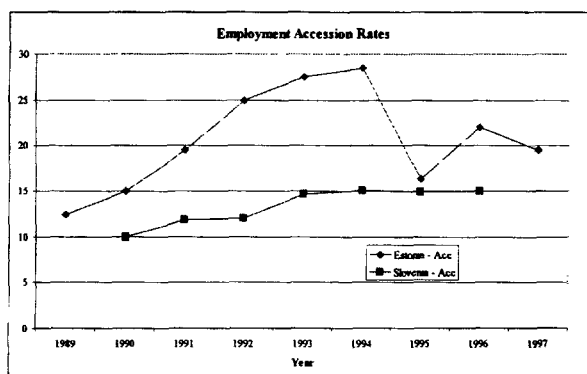
Source: Haltiwanger and Vodopivec (1999); Vodopivec (1999).

Finally, it seems difficult to evaluate at this stage the impact of wage bargaining without further research. Past research has shown that institutions associated with collective bargaining tend to reduce the dispersion of earnings. In CEE countries, changes in the bargaining system have been accompanied by a sharp increase in private sector employment and a decompression of the wage structure. It is difficult to assess to which extent institutions and social norms inherited from the past still play a role in the wage determination process

and whether wage inequality – although clearly increasing – has reached levels comparable to other countries.

V. Conclusions

In this paper, we have studied labor market dynamics in six CEE countries over the last 10 years, paying special attention to the nature of the labor market institutions these countries have recently adopted and to their impact on labor market performance. We have done so using the OECD methodology so that we could compare institutions in CEE countries seeking EU membership with those in EU and OECD countries. This exercise was motivated by the desire to shed some light on the ongoing debate on the role of institutions in labor market performance, a debate of particular relevance to countries in Europe where unemployment remains high on the list of policy concerns.

The first question we addressed was whether CEE countries – candidates for EU accession – had adopted institutions similar to those in the EU and, as a consequence, introduced in their labor markets the same rigidities that exist in EU countries. We found that, indeed, the CEE countries have adopted a set of labor market institutions that broadly resemble those in the EU. However, just as labor markets and institutions in Europe exhibit enormous diversity, we find variation across the CEE countries in terms of employment protection legislation, support to the unemployed, taxation on labor and strength of unions.

Compared to EU members, we showed that CEE countries fall in the middle of the 'flexibility' scale regarding their employment protection legislation. They have not adopted legislation as flexible as that in the United Kingdom or Ireland, nor have they copied the highly rigid southern European model. They also spend relatively little to support the unemployed, as measured by the share of every dollar generated by a labor force member that is spent on unemployment insurance or active labor market policies. The CEE average spending in both passive and active labor market policies falls below the EU and the OECD average, and the behavior of these countries resembles that of the United States, Japan and Southern Europe, rather than that of Denmark or Sweden in this respect. Where CEE countries stand out is in terms of labor taxation where they rank among the highest in all EU and OECD countries.

In assessing the impact of those institutions on labor outcomes, we argued that the dramatic changes observed during the 1990s in employment, unemployment, labor force participation and wages could not have occurred without the macroeconomic and structural reforms these countries have embraced as part of the transition process. As a result, the effect of institutions may have been masked by the magnitude of these other reform-induced changes.

We also assert that the effect of institutions, although hard to uncover, should not be disregarded. Although institutions may not have played a substantial role during the first phase of adjustment, they are likely to become more important in the next few years. In particular, we have tried to show, using evidence drawn from other research, that existing labor market institutions, although moderate, may be partly responsible for the lack of recovery of employment and the rising share of long-term unemployment. While the impact on total unemployment remains uncertain, data also suggest that institutions in CEE countries may well have an impact on the composition of the labor force and of employment.

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Annex I. Additional Tables and Figures.

Table AI.1. Employment Protection Legislation in OECD and EU Accession Countries (I).

| | Regular Empl. | Temporary Empl. | Collective Dismissals | EPL Strictness for OECD and CEEC OECD vs. CEEC | | | |
| | | | | Version 1[1] | | Version 2[2] | |
				Index	Rank[3]	Index	Rank[3]
OECD							
Austria	2.6	1.8	3.3	2.2	12	2.3	12
Belgium	1.5	2.8	4.1	2.1	10	2.5	13
Denmark	1.6	0.9	3.1	1.2	8	1.5	8
Finland	2.1	1.9	2.4	2.0	9	2.1	9
France	2.3	3.6	2.1	3.0	17	2.8	17
Germany	2.8	2.3	3.1	2.5	15	2.6	16
Ireland	1.6	0.3	2.1	0.9	4	1.1	5
Italy	2.8	3.8	4.1	3.3	19	3.4	19
Netherlands	3.1	1.2	2.8	2.1	11	2.2	10
Norway	2.4	2.8	2.8	2.6	16	2.6	15
Portugal	4.3	3.0	3.6	3.7	20	3.7	20
Spain	2.6	3.5	3.1	3.1	18	3.1	18
Sweden	2.8	1.6	4.5	2.2	13	2.6	14
Switzerland	1.2	0.9	3.9	1.0	6	1.5	7
U.K.	0.8	0.3	2.9	0.5	2	0.9	2
Canada	0.9	0.3	3.4	0.6	3	1.1	4
U.S.	0.2	0.3	2.9	0.2	1	0.7	1
Japan	2.7	2.1	1.5	2.4	14	2.3	11
Australia	1.0	0.9	2.6	0.9	5	1.2	6
New Zealand	1.7	0.4	0.4	1.0	7	0.9	3
EU average[5]	2.4	2.1	3.2	2.2		2.4	
OECD average[6]	2.0	1.7	2.9	1.9		2.0	
CEEC							
Czech Rep.	2.8	0.5	4.3	1.7	3	2.1	3
Estonia	3.1	1.4	4.1	2.3	5	2.6	5
Hungary	2.1	0.6	3.4	1.4	1	1.7	1
Poland	2.2	1.0	3.9	1.6	2	2.0	2
Slovakia	2.6	1.4	4.4	2.0	4	2.4	4
Slovenia	3.4	2.4	4.8	2.9	6	3.5	6
Slovenia[4]	(2.9)	(0.6)	(4.9)	(1.8)	(4)	(2.3)	(4)
CEEC average	2.7	1.2	4.1	2.0		2.4	

Source: OECD (1999) Employment Outlook 1999, Table 2.5. World Bank estimates for Estonia and Slovenia.
1/ Weighted average of indicators for regular contracts and temporary contracts.
2/ Weighted average of indicators for regular contracts, temporary contracts, and collective dismissals.
3/ All rankings increase with the strictness of employment protection.
4/ Based on proposed labor code.
5/ Does not include Greece and Luxemburg.
5/ Average for all OECD countries presented on the table.

Table AI.2. Employment Protection Legislation in OECD and EU Accession Countries (II).

	EPL Strictness for OECD and CEEC					
	OECD versus CEEC				OECD and CEEC	
	Version 1[1]		Version 2[2]		Version 1[1]	Version 2[2]
	Index	Rank[3]	Index	Rank[3]	Rank[3]	Rank[3]
OECD						
Austria	2.2	12	2.3	12	16	15
Belgium	2.1	10	2.5	13	14	17
Denmark	1.2	8	1.5	8	8	8
Finland	2.0	9	2.1	9	13	12
France	3.0	17	2.8	17	22	22
Germany	2.5	15	2.6	16	20	21
Ireland	0.9	4	1.1	5	4	5
Italy	3.3	19	3.4	19	25	24
Netherlands	2.1	11	2.2	10	15	13
Norway	2.6	16	2.6	15	21	20
Portugal	3.7	20	3.7	20	26	26
Spain	3.1	18	3.1	18	23	23
Sweden	2.2	13	2.6	14	17	19
Switzerland	1.0	6	1.5	7	6	7
U.K.	0.5	2	0.9	2	2	2
Canada	0.6	3	1.1	4	3	4
U.S.	0.2	1	0.7	1	1	1
Japan	2.4	14	2.3	11	19	14
Australia	0.9	5	1.2	6	5	6
New Zealand	1.0	7	0.9	3	7	3
EU average[5]	2.2		2.4			
OECD average[6]	1.9		2.0			
CEEC						
Czech Republic	1.7	3	2.1	3	11	11
Estonia	2.3	5	2.6	5	18	18
Hungary	1.4	1	1.7	1	9	9
Poland	1.6	2	2.0	2	10	10
Slovakia	2.0	4	2.4	4	12	16
Slovenia	2.9	6	3.5	6	24	25
Slovenia[4]	(1.8)	(4)	(2.3)	(4)	(12)	(16)
CEEC average	2.0		2.4			

Source: OECD (1999) Employment Outlook 1999, World Bank estimates for Estonia and Slovenia.

1/ Weighted average of indicators for regular contracts and temporary contracts.
2/ Weighted average of indicators for regular contracts, temporary contracts, and collective dismissals.
3/ All rankings increase with the strictness of employment protection.
4/ Based on proposed labor code.
5/ Does not include Greece and Luxemburg
5/ Average for all OECD countries in the table.

Table AI.3. Features of the Unemployment Insurance System in Selected OECD and EU Accession Countries. Late 1990s.

	Benefit RR (%)	Benefit Duration (months)
OECD		
Austria	50	5 – 12
Belgium	57	12 - No limit
Denmark	70	60
Finland	63	24
France	70	27 – 54
Germany	61	6 – 32
Ireland	49	15
Italy	42	6
Netherlands	69	6 – 54
Norway	67	46
Portugal	65	10 – 30
Spain	73	4 – 24
Sweden	75	12 – 18
Switzerland	73	8.5 – 20
U.K.	36	12
Canada	59	12
U.S.	60	6
Japan	60	6
Australia	36	No limit
New Zealand	30	No limit
EU average[3]	60	
OECD average[4]	58	
CEEC		
Czech Republic	50	6
Estonia	10[5]	3-6
Hungary	64	12[6]
Poland	40[7]	12-24[8]
Slovakia	60	6-12[9]
Slovenia	63	3-24[9]
CEEC average	48 (55)[10]	

Source: OECD Employment Outlook (1995, 1999), IMF World Economic Outlook (1999), IMF Article IV – Consultation with the Slovak Republic, World Bank estimates for Estonia and Slovakia, *Czech Republic: Towards EU Accession* (The World Bank, 1999), *Slovak Republic: A Strategy for Growth and Economic Integration* (The World Bank, 1998).

1/ Description of categories: (i) Benefit RR – Benefit Replacement Ratio – initial benefit level divided by previous earned income, (ii) Benefit Duration – Benefit Duration – maximum duration, in months, depending on various criteria (age, family status, employment record/ contributive history).

2/ Data for Czech Republic, Estonia and Slovenia are from 1998; data for Hungary are from 1997, and data for Poland and Slovakia are from 1996.

3/ Does not include Greece and Luxemburg.

4/ Average for all OECD countries in the table.

5/ Benefits are set at 60% of minimum wage. This amounts to approximately 10% of the average wage.

6/ Requires 4 years of employment.

7/ The replacement ratio is 40% of the average wage for the year prior to unemployment.

8/ Benefit duration increases with previous employment tenure.

9/ Benefit duration is a function of the worker's contributive history.

10/ Figure in parentheses does not include Estonia.

Table AI.4. Spending on Passive and Active Labor Market Policies in Selected OECD and EU Accession Countries [1].

	Unemployment. rate	Passive policies		Active policies	
		% GDP	Spending per unemployment.	% GDP	Spending per unemployment.
OECD					
Austria (1999)	3.7	1.22	0.32	0.52	0.14
Belgium (1998)	9.5	2.51	0.26	1.34	0.14
Denmark (1999)	5.2	3.12	0.60	1.77	0.34
Finland (1999)	10.3	2.33	0.23	1.22	0.12
France (1999)	11.3	1.85	0.16	1.33	0.12
Germany (1999)	8.7	2.12	0.24	1.30	0.15
Greece (1997)	9.8	0.50	0.05	0.35	0.04
Ireland (1996)	11.7	2.42	0.21	1.66	0.14
Italy (1999)	11.4	0.64	0.06	1.10	0.10
Netherlands (1999)	3.3	2.81	0.85	1.80	0.55
Norway (1999)	3.3	0.47	0.14	0.82	0.25
Portugal (1996/98)	5.2	0.83	0.16	0.87	0.12
Spain (1999)	15.9	1.41	0.09	0.81	0.05
Sweden (1999)	7.2	1.70	0.24	1.84	0.26
Switzerland (1997/98)	4.2	1.03	0.25	0.41	0.10
U.K. (1997/98)	7.0	0.82	0.12	0.37	0.05
Canada (1998/99)	8.3	0.99	0.12	0.51	0.06
U.S. (1998/99)	4.5	0.25	0.06	0.18	0.04
Japan (1998/99)	4.1	0.52	0.13	0.09	0.02
Australia (1998/99)	8.0	1.06	0.13	0.52	0.07
New Zealand (1998/99)	7.4	1.57	0.21	0.62	0.08
EU average[4]		1.73	0.26	1.16	0.16
OECD average[5]		1.43	0.23	0.92	0.14
CEEC					
Czech Republic (1999)	8.8	0.31	0.04	0.19	0.02
Estonia (1998)	9.9	0.08	0.01	0.08	0.01
Hungary (1997)	8.7	0.56	0.06	0.40	0.04
Poland (1996)	14.3	1.71	0.12	0.49	0.03
Slovakia (1996)	11.1	0.54	0.05	0.56	0.05
Slovenia (1998)	7.9	0.89	0.11	0.83	0.11
CEEC average		0.68	0.06	0.42	0.04

Source: OECD Employment Outlook (1997, 1999), CEM Slovak Republic, ELFS (1998), RZS (1999).
Data for 1996, 1997 and 1999.
1/ Data from different years (in parentheses)
2/ Spending Measure 1: Ratio of GDP spending on UI to unemployment rate (both in percentage terms.
3/ Spending Measure 2: Spending per unemployed individual as a percentage of GDP per labor force participant.
4/ Does not include Luxemburg.
4/ Average for all OECD countries in the table.

Table AI.5. The Role of Unions and Payroll Taxes in Selected OECD and EU Accession Countries.

	1[1]	2	3		4	5
	Union density (%)[2]	Union coverage index[3]	Coordination		Payroll tax rate (%)	Total tax rate (%)
			Union	Employer		
OECD						
Austria	41.2	3	3	3	22.6	53.7
Belgium	51.9	3	2	2	21.5	49.8
Denmark	80.1	2	3	3	0.6	46.3
Finland	79.3	3	2	3	25.5	65.9
France	9.1	3	2	2	38.8	63.8
Germany	28.9	3	2	3	23.0	53.0
Ireland	48.9	3	1	1	7.1	34.3
Italy	44.1	3	2	2	40.2	62.9
Netherlands	25.6	3	2	2	27.5	56.5
Norway	57.7	2	3	3	17.5	48.6
Portugal	25.6	3	2	2	14.5	37.6
Spain	18.6	3	2	1	33.2	54.2
Sweden	91.1	3	3	3	37.7	70.7
Switzerland	22.5	2	1	3	14.5	28.6
U.K.	32.9	2	1	1	13.8	40.8
Canada	37.4	2	1	1	13.0	42.7
U.S.	14.2	1	1	1	20.9	43.8
Japan	24.0	2	2	2	16.5	36.3
Australia	35.2	3	2	1	2.5	28.7
New Zealand	24.3	1	1	1		34.8
EU average[4]	44.4				23.5	53.0
OECD average[5]	39.6				19.5	45.4
CEEC						
Czech Republic	42.8	2	1	1	47.5	73.4
Estonia	36.1	2	2	1	33.0	63.3
Hungary	60.0	3	1	2	44.0	81.5
Poland	33.8	3	2	1	48.2	80.0
Slovakia	61.7	3	2	2	50.0	81.0
Slovenia	60.0	3	3	3	38.0	69.1
CEEC average	49.1				43.4	74.7

Source: Columns 1 (except Slovenia) and 2 (except Czech Republic and Hungary) from ILO (1997) World Labor Report 1997-98 and OECD Employment Outlook (1997); data for Slovenia, the Czech Republic and Hungary estimated by the World Bank. Column 3 and 4, and tax rates for the OECD from Nickell (1997). Columns 3, 4 and tax rates for the CEEC from (i) Deloitte Touche Tohmatsu International - Taxation in Eastern Europe (1997), (ii) Bank of Estonia, (iii) Polish Agency for Foreign Investment, (iv) EIU (1998), and (v) *Labour Regulations in Eastern Europe*, Business Eastern Europe.
1/ All data for 1995, except for Denmark, Ireland, Italy, Spain and Sweden (1993), and estimated data for Slovenia.
2/ Percentage of salaried workers that belong to a union.
3/ 1: less than 25% of salaried workers are covered by collective agreements, 2: between 26 and 69% are covered, 3: 70% or more are covered.
4/ Does not include Greece and Luxemburg.
5/ Average for all OECD countries in the table.

Table AI.6 GDP in EU Accession Countries: Growth Rates and Levels.

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Czech Republic	Growth rate	-1.2	-11.6	-0.5	0.1	2.2	5.9	4.8	-1.0	-2.2	-0.2	2.7
	Level (1990=100)	100	88.4	88.0	88.0	90.0	95.3	99.9	98.9	96.7	96.5	99.1
Estonia	Growth rate	-7.1	-8.0	-21.2	-8.4	-2.0	4.3	3.9	10.6	4.7	-1.1	5.0
	Level (1990=100)	100	92.0	72.5	66.4	65.1	67.9	70.5	78.0	81.7	80.8	84.8
Hungary	Growth rate	-3.5	-11.9	-3.1	-0.6	2.9	1.5	1.3	4.6	4.9	4.5	5.6
	Level (1990=100)	100	88.1	85.4	84.9	87.4	88.7	89.9	94.0	98.6	103.1	114.6
Poland	Growth rate	-4.9	-7.0	2.6	3.8	5.2	7.0	6.0	6.8	4.8	4.1	2.2
	Level (1990=100)	100	93.0	95.4	99.0	104.2	111.5	118.2	126.3	132.4	137.8	150.5
Slovak Republic	Growth rate	-2.7	-14.6	-6.7	-3.7	4.9	6.7	6.2	6.2	4.1	1.9	1.8
	Level (1990=100)	100	85.4	79.7	76.7	80.5	85.9	91.2	96.9	100.9	102.8	108.3
Slovenia	Growth rate	-4.7	-8.9	-5.4	2.8	5.3	4.1	3.5	4.6	3.9	4.9	4.5
	Level (1990=100)	100	91.1	86.2	88.6	93.3	97.1	100.5	105.1	109.2	114.6	124.8

Sources: SIMA (WDI database and Unified Survey FY01 database), National Authorities, IMF, and the World Bank country team estimates.

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Table AI.7 Employment in EU Accession Countries: Growth Rates and Levels.

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Czech Republic	growth		-1.8	-0.9	-0.5	-0.3	1.7	-3	-1.6	-1.4	-2.3	-1.5
	index (1990=100)	100.0	98.2	97.3	96.8	96.5	98.2	95.2	93.7	92.4	90.3	88.9
Hungary	growth		-9.6	-9.3	-6.3	-2	-1.9	-0.8	-0.1	1.5	3.1	2.7
	index (1990=100)	100.0	90.4	82.0	76.8	75.3	73.9	73.3	73.2	74.6	76.9	79.0
Estonia	growth		-2.3	-5.2	-7.5	-2.2	-5.3	-1.6	0.4	-1.3		
	index (1990=100)	100.0	97.7	92.6	85.7	83.8	79.4	78.1	78.5	77.5		
Poland	growth	-5	-5.9	-4.2	-2.4	1	1.8	1.9	2.8	1.9	-0.2	-0.5
	index (1990=100)	100.0	94.1	90.1	88.0	88.9	90.5	92.2	94.8	96.6	96.4	95.9
Slovakia	growth	-1.8	-12.5	1.1	-2.6	-1	2.4	-1.4	-2.3	-1.0	-1.4	-1.1
	index (1990=100)	100.0	87.5	88.5	86.2	85.3	87.3	86.1	83.8	82.9	81.7	80.0
Slovenia	growth	-3.9	-5.1	-4.1	-1.8	0.3	0.8	-0.9	0.0	0.2	1.8	1.3
	index (1990=100)	100.0	94.9	91.0	89.4	89.6	90.4	89.5	89.5	89.6	91.2	92.3

Source: Employment and Labor Market country reports prepared by the European Training Foundation (1999), and EBRD Transition Report (1999).

Table AI.8 Employment-to-Population Ratios in EU Accession Countries.

		1993	1994	1995	1996	1997	1998	1999
Czech Republic	All (15-64)		71.5	69.6	69.4	68.7	67.5	65.9
	Female (15-64)		66.2	61.6	60.6	60.0	58.8	57.4
Estonia	All (15-64)	68.7	68.1	65.5	64.9	65.4	64.7	
	Female (15-64)	62.6	62.0	60.5	60.2	60.4	60.4	
Hungary	All (15-64)		48.2	52.9	52.7	52.7	55.3	55.7
	Female (15-64)		41.9	45.9	45.5	45.5	47.3	49.0
Poland	All (15-64)		58.3	58.1	58.4	58.8	58.9	
	Female (15-64)		51.9	51.8	51.8	51.8	52.2	
Slovakia	All (15-64)		61.1	62.3	63.2	59.7	58.8	
	Female (15-64)		56.0	56.8	57.5	53.1	52.6	
Slovenia	All (15-64)	60.7	60.3	62.9	61.9	63.4	63.7	
	Female (15-64)	56.5	56.0	58.0	57.7	58.9	59.6	

Source: Employment and Labor Market country reports prepared by the European Training Foundation (1999), Statistical Office of Estonia, and OECD Employment Outlook (1999).

Table AI.9 Unemployment Rates in EU Accession Countries.

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Czech Republic	Survey				3.9	3.8	4.1	3.9	4.8	6.5	8.8
	Registered		4.1	2.6	3.5	3.2	2.9	3.5	5.2	7.5	9.6
Estonia	Survey[1]	0.6	1.5	3.7	6.5	7.6	9.7	10.0	9.7	9.9	11.7
	Registered				4.4	4.1	4.4	4.0	3.7	5.1	
Hungary	Survey			9.8	11.9	10.7	10.2	9.9	8.7	7.8	7.1
	Registered	1.4	7.4	12.3	12.1	10.4	10.4	10.5	10.4	8.8	
Poland	Survey				14.9	16.5	15.2	14.3	11.5	10.6	12.0
	Registered	6.5	12.2	14.3	16.4	16.0	14.9	13.2	10.3	10.4	11.5
Slovakia	Survey				12.2	13.7	13.1	11.1	11.6	12.5	17.1
	Registered[2]	1.5	11.8	10.4	14.2	14.6	13.1	12.8	13.4	16.4	19.2
Slovenia	Survey				9.1	9.0	7.4	7.3	7.1	7.9	
	Registered	4.7	8.2	11.5	14.4	14.5	14.0	13.9	14.4	14.5	
EU-15 Average	Survey	7.0	7.7	8.9	10.1	10.3	9.8	9.8	9.2	8.3	7.6
EU- Group 1 (North)[2]	Survey	4.9	5.9	7.5	9.2	9.5	8.5	8.3	7.5	6.7	6.0
EU- Group 2 (Central)[3]	Survey	7.6	8.0	8.7	8.5	9.0	8.9	9.4	9.7	9.5	8.8
EU- Group 3 (South)[4]	Survey	10.2	10.6	11.5	13.2	13.6	12.9	12.7	11.8	10.5	12.4[5]
United states	Survey	5.6	6.8	7.5	6.9	6.1	5.6	5.4	4.9	4.5	4.2

Source: Employment and Labor Market country reports prepared by the European Training Foundation (1999), EBRD Transition Report (1999), Central Bank of Estonia, and OECD Employment Outlook (1999).
1/ Data from Social Policy (1998), Ministry of Labor, Family and Social Affairs.
2/ Includes Finland, Sweden, Denmark, United Kingdom, and Benelux.
3/ Includes Germany, France, Austria and Italy.
4/ Includes Portugal, Spain, Greece and Ireland.
5/ Only Portugal and Spain.

Table AI.10 Unemployment Inflows and Outflows in EU Accession Countries.

		1991	1992	1993	1994	1995	1996
Czech Republic	Annual average inflow rate[1]	0.9	0.9	0.7	0.6	0.6	0.6
	Annual average outflow rate[2]	17.1	26.6	22.0	21.3	21.3	19.3
Estonia[3]	Annual average inflow rate						
	Annual average outflow rate						
Hungary	Annual average inflow rate		0.9	1.3	1.1	1.0	1.3
	Annual average outflow rate		6.6	7.7	9.1	7.9	9.4
Poland	Annual average inflow rate		0.9	1.1	1.2	1.3	1.2
	Annual average outflow rate		4.3	4.8	6.2	8.0	8.2
Slovakia	Annual average inflow rate	1.3	1.1	1.5	1.3	1.4	1.4
	Annual average outflow rate	4.8	10.2	7.8	7.4	9.5	10.0
Slovenia	Annual average inflow rate[4]				6.7	8.4	9.0
	Annual average outflow rate[4]				9.8	6.9	9.7

Source: Terrell (1999) and Employment and Labor Market country reports prepared by the European Training Foundation (1999).
1/ Average annual rates of the number flowing into unemployment divided by the number employed and multiplied by 100.
2/ Average annual rates of the number flowing out of unemployment divided by the number unemployed and multiplied by 100.
3/ Data not available.
2/ Average annual rates for the number flowing in and out of unemployment divided by the number unemployed and multiplied by 100 (based on monthly rates).

Table AI.11 Unemployment Rates in Selected OECD Countries.

		1993	1994	1995	1996	1997	1998	1999	1993-98/99
Austria	Survey	4.0	3.8	3.9	4.4	4.5	4.7	3.7	4.1
Belgium	Survey	8.9	10.0	9.9	9.7	9.2	8.8	9.0	9.4
Denmark	Survey	10.1	8.2	7.3	6.8	5.6	5.1	5.2	6.9
Finland	Survey	16.4	16.8	15.3	14.6	12.7	11.4	10.3	13.9
France	Survey	11.7	12.3	11.7	12.4	12.3	11.7	11.3	11.9
Germany	Survey	7.9	8.4	8.2	8.9	9.9	9.4	8.7	8.8
Greece	Survey	8.6	8.9	9.2	9.6	9.6	10.7		9.4
Ireland	Survey	15.6	14.3	12.3	11.6	9.9	7.8		11.9
Italy	Survey	10.3	11.4	11.9	12.0	12.1	11.9	11.4	11.6
Luxemburg	Survey	2.7	3.2	2.9	3.0	2.8	2.8	2.3	2.8
Netherlands	Survey	6.6	7.1	6.9	6.3	5.2	4.0	3.3	5.6
Portugal	Survey	5.7	7.0	7.3	7.3	6.8	4.9	4.5	6.2
Spain	Survey	22.7	24.1	22.9	22.2	20.8	18.8	15.9	21.0
Sweden	Survey	9.1	9.4	8.8	9.6	9.9	8.2		9.2
United Kingdom	Survey	10.5	9.6	8.7	8.2	7.0	6.3	6.1	8.0
United States	Survey	6.9	6.1	5.6	5.4	4.9	4.5	4.2	5.4
EU-15 Average	Survey	10.1	10.3	9.8	9.8	9.2	8.3	7.6	9.3

Source: OECD Employment Outlook (1999).

Table AI.12 Short and Long-Term Unemployment in Selected OECD Countries.

		1993	1994	1995	1996	1997	1998	1999
Austria	SRU[1]		3.1	2.9	3.3	3.2	3.3	2.5
	LTU[2]		0.7	1.0	1.1	1.3	1.4	1.2
	%LTU[3]		18.5	25.6	25.6	28.7	30.2	31.7
Belgium	SRU	4.2	4.2	3.7	3.8	3.6	3.3	3.6
	LTU	4.7	5.8	6.2	5.9	5.6	5.5	5.4
	%LTU	53.0	58.3	62.4	61.3	60.5	62.6	60.5
Denmark	SRU	7.6	5.6	5.3	5.0	4.1	3.6	4.1
	LTU	2.5	2.6	2.0	1.8	1.5	1.5	1.1
	%LTU	25.1	32.1	27.9	26.5	27.2	28.7	20.5
Finland	SRU	11.4		9.5	9.6	8.9	8.3	7.3
	LTU	5.0		5.8	5.0	3.8	3.1	3.0
	%LTU	30.6		37.6	34.5	29.8	27.5	29.6
France	SRU	7.7	7.6	6.8	7.5	7.2	6.5	6.7
	LTU	4.0	4.7	4.9	4.9	5.1	5.2	4.6
	%LTU	34.2	38.3	42.3	39.5	41.2	44.1	40.3
Germany	SRU	4.7	4.7	4.2	4.6	4.9	4.5	4.2
	LTU	3.2	3.7	4.0	4.3	5.0	4.9	4.5
	%LTU	40.0	43.9	48.7	47.8	50.1	52.2	51.7
Ireland	SRU	3.8	6.0	4.7	4.6	4.9		
	LTU	11.8	8.3	7.6	6.9	5.6		
	%LTU	75.9	57.8	61.4	59.5	57.0		
Italy	SRU	4.4	4.5	4.3	4.1	4.1	4.1	4.4
	LTU	5.9	6.9	7.6	7.9	8.0	8.1	7.0
	%LTU	57.3	60.8	63.6	65.6	66.3	68.1	61.4
Netherlands	SRU	3.6	4.0	3.7	3.2	2.6	2.1	1.9
	LTU	3.0	3.1	3.2	3.2	2.6	1.9	1.4
	%LTU	45.4	43.5	46.8	50.0	49.1	47.9	43.5
Portugal	SRU	3.7	4.1	3.6	3.4	3.0	2.7	2.6
	LTU	2.0	2.9	3.7	3.9	3.8	2.2	1.9
	%LTU	32.5	41.8	50.9	53.1	55.6	44.6	41.2
Spain	SRU	11.3	10.6	9.9	9.8	9.3	8.6	7.7
	LTU	11.4	13.5	13.0	12.4	11.5	10.2	8.2
	%LTU	50.1	56.1	56.9	55.7	55.5	54.1	51.3
Sweden	SRU	8.1	7.8	6.4	6.7	6.6	5.5	
	LTU	1.0	1.6	2.4	2.9	3.3	2.7	
	%LTU	10.9	17.2	27.8	30.1	33.4	33.5	
United kingdom	SRU	6.0	5.2	4.9	4.9	4.3	4.2	4.3
	LTU	4.5	4.4	3.8	3.3	2.7	2.1	1.8
	%LTU	42.5	45.4	43.6	39.8	38.6	33.1	29.8
United states	SRU	6.1	5.4	5.1	4.9	4.5	4.1	3.9
	LTU	0.8	0.7	0.5	0.5	0.4	0.4	0.3
	%LTU	11.5	12.2	9.7	9.5	8.7	8.0	6.8

Source: OECD-CCET Labor Market Database 1990-1997, and OECD Employment Outlook (1999, 2000).
1/ Short-term unemployment.
2/ Long-term unemployment.
3/ Percentage of total unemployment due to long-term unemployment.

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Table AI.13 Labor Force Participation Rates in Selected OECD Countries.

		1994	1995	1996	1997	1998
EU-15 Average	All (15-64)	60.1	61.1	61.4	62.0	63.0
	Female (15-64)	57.1	57.6	58.3	58.7	59.4
Austria	All (15-64)	...	68.4	67.3	67.2	67.4
	Female (15-64)		62.3	61.8	61.8	62.5
Belgium	All (15-64)	55.7	56.3	56.3	57.0	57.3
	Female (15-64)	51.2	51.7	52.0	52.9	53.8
Denmark	All (15-64)	72.4	73.9	74.0	75.4	75.3
	Female (15-64)	73.8	73.3	73.6	74.2	75.0
Finland	All (15-64)	60.7	61.9	62.8	63.6	64.8
	Female (15-64)	69.1	69.5	69.9	69.5	69.7
France	All (15-64)	58.3	59.0	59.2	58.8	59.4
	Female (15-64)	59.2	59.8	60.3	60.1	60.8
Germany	All (15-64)	64.7	64.7	64.1	63.6	64.1
	Female (15-64)	61.4	61.3	61.3	61.8	60.9
Greece	All (15-64)	54.1	54.4	54.9	54.8	54.9
	Female (15-64)	43.2	44.3	45.8	46.0	48.2
Ireland	All (15-64)	52.3	53.8	54.8	56.1	59.8
	Female (15-64)	46.9	47.0	48.8	49.7	52.1
Italy	All (15-64)	50.9	50.5	50.6	50.5	50.8
	Female (15-64)	42.2	42.5	43.3	43.6	43.9
Luxemburg	All (15-64)	60.2	58.5	59.1	59.9	60.2
	Female (15-64)	47.0	44.1	45.7	47.1	47.6
Netherlands	All (15-64)	36.0	34.2	66.2	68.1	69.8
	Female (15-64)	57.3	59.1	60.2	61.9	62.9
Portugal	All (15-64)	62.9	62.5	62.3	63.4	66.8
	Female (15-64)	58.8	59.1	59.5	60.3	61.9
Spain	All (15-64)	46.5	47.4	48.2	49.4	51.2
	Female (15-64)	45.4	46.2	47.0	48.0	48.7
Sweden	All (15-64)	71.5	72.2	71.6	70.7	71.5
	Female (15-64)	77.0	77.2	77.1	76.3	75.5
United States	All (15-64)	76.7	76.9	77.1	77.4	77.4
	Female (15-64)	69.4	69.7	70.1	70.7	70.7

Source: OECD Employment Outlook (1999)

Annex II. Constructing the Employment Protection Legislation Index.

Since the late 1980s, the OECD has been interested in analyzing the relationship between employment protection legislation (EPL) and labor market flexibility (and performance). While, the first round of studies used an EPL index based solely on permanent and temporary employment regulation, this index was later updated to account for regulation concerning collective dismissals. The methodology described here corresponds to the most recent version of the EPL index.

This index is constructed as a weighted average of 22 different indicators describing various aspects of both permanent and temporary employment, as well as collective dismissals. Although some of these indicators are readily available from the country's labor 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.

Table AII.1 contains a detailed description of all 22 indicators classified in three groups (level 3): (i) indicators describing legislation for regular of permanent contracts (RC), (ii) indicators capturing the nature of temporary employment legislation (TC), and (iii) indicators for the strictness of collective dismissal procedures (CD). These broad groups can then be broken up into more narrowly defined sub-groups (level 2). For instance, when looking at temporary employment legislation, indicators for the nature and characteristics of fixed-term contracts (TC1) and temporary work agencies (TC2) are considered separately. Finally, each subgroup may contain one or more individual indicators, such as "Valid cases other than objective" (TC1A) and "Maximum number of successive contracts" (TC1B) in the case of fixed-term contracts legislation (level 1).

Table AII.1 Employment Protection Index: Selection of Indicators and Weighting Scheme

Level 4	Level 3	Level 2	Level 1		
EPL Overall Summary Indicator	RC Regular contracts (5/12)	RC1 Procedural Inconveniences (1/3)	Procedures		(1/2)
			Delay to start a notice		(1/2)
		RC2 Notice and severance pay for no-fault individual dismissals (1/3)	Notice period after	9 months	(1/7)
				4 years	(1/7)
				20 years	(1/7)
			Severance pay after	9 months	(4/21)
				4 years	(4/21)
				20 years	(4/21)
		RC3 Difficulty of dismissal (1/3)	Definition of unfair dismissal		(1/4)
			trial period		(1/4)
			compensation		(1/4)
			reinstatement		(1/4)
	TC Temporary contracts (5/12)	TC1 Fixed-term contracts (1/2)	valid cases other than objective		(1/2)
			max number of successive contracts		(1/4)
			max cumulated duration		(1/4)
		TC2 Temporary Work Agency (1/2)	types of work for which is legal		(1/2)
			restrictions on number of renewal		(1/4)
			max cumulated duration		(1/4)
	CD Collective Dismissals (2/12)		definition of collective dismissal		(1/4)
			additional notification requirements		(1/4)
			additional delays involved		(1/4)
			other special costs to employers		(1/4)

This classification is rather important, since the EPL methodology relies heavily on it to move from the individual indicators to the overall index. In particular, the EPL calculation is organized in 3 steps,

each of them aggregating information from one level to the next (e.g. level 1⇒ level 2, level 2 ⇒ level 3, etc.) and using a different set of weights (in parentheses in Table AII.1).

It is important to notice that different indicators are expressed in different units, making standardization necessary in order to aggregate them in a comprehensive manner. For this purpose, all indicators are re-scaled according using a common ranking, from '0' (very flexible legislation) to '6' (very strict legislation), in the way described in Table AII.2 below.

Table AII.2 Employment Protection Index: Conversion into a Common Scale

Code	Original Unit	0	1	2	3	4	5	6
Individual dismissals								
RC1A	Scale 0-3				Scale (0-3)*2			
RC1B	Days	0-2	<10	< 18	< 26	< 35	< 45	≥ 45
RC2A1	Months	0	≤ 0.4	≤ 0.8	≤ 1.2	< 1.6	< 2	≥ 2
RC2A2	Months	0	≤ 0.75	≤ 1.25	< 2	< 2.5	< 3.5	≥ 3.5
RC2A3	Months	<3	≤ 2.75	≤ 5	≤ 7	≤ 9	> 11	< 11
RCB1	Months	0	≤ 0.5	≤ 1	≤ 1.75	≤ 2.5	< 3	≥ 3
RCB2	Months	0	≤ 0.5	≤ 1	≤ 2	≤ 3	< 4	≥ 4
RCB3	Months	0	≤ 3	≤ 6	≤ 10	≤ 12	≤18	> 18
RC3A	Scale 0-3				Scale (0-3)*2			
RC3B	Months	≥ 24	> 12	> 9	> 5	> 2.5	> 1.5	< 1.5
RC3C	Months	≤ 13	≤ 8	≤ 12	≤ 18	≤ 24	≤ 30	> 30
RC3D	Scale0-3				Scale (0-3)*2			
Temporary dismissals								
TC1A	Scale 0-3				Scale (0-3)*2			
TC1B	Number	No limit	≥ 5	≥ 4	≥ 3	≥ 2	≥ 1.5	< 1.5
TC1C	Months	No limit	≥ 36	≥ 30	≥ 24	≥ 18	≥ 12	< 12
TC2A	Scale 0-4				Scale (0-4)*6/4			
TC2B	Yes/no			No		Yes or TC2A=0		
TC2C	Months	No limit	≥ 36	≥ 24	≥ 18	≥ 12	> 6	≤ 6 or TC2A=0
Collective dismissals								
CD1	Scale 0-4				Scale (0-4)*6/4			
CD2	Scale 0-2				Scale (0-2)*3			
CD3	Days	0	< 25	< 30	< 50	< 70	< 90	> 90
CD4	Scale 0-2				Scale (0-2)*3			

In sum, the EPL index is constructed as follows:

- Calculation of individual indicators (see Tables AII.3-AII.5 below)
- Re-scaling of individual indicators using the conversion presented in Table AII.2
- Aggregation in 3 steps from levels 1 to 4 using the weights described in Table AII.1.

As a result of this methodology, the countries with very flexible employment protection regulation have a low overall EPL index (close to 0 or 1), and those with very strict legislation will have a high index (close to 5 or 6).

Table AII.3 EPL Index: Dismissal Regulation for Permanent Employees (12 indicators).

	Regular procedures		Notice and severance pay for 'no-fault' individuals						Difficulty of dismissal			
			Notice period after			Severance pay after			Definition of unfair	Trial period		
	Procedure	Delay to start of notice	9m	4y	20y	9m	4y	20y	dismissal	before eligibility	Compens. at 20y of tenure	Extent of re-admission
	Scale 0 to 3	Days			Months							
Czech Republic	2.0	7.0	2.0	2.5	2.5	1.0	1.0	1.0	2.0	3.0	8.0	2.0
Estonia	2.0	1.0	2.0	2.0	4.0	2.0	2.0	4.0	1.5	1.0	6.0	3.0
Hungary	1.0	13.0	1.0	1.2	3.0	0.0	1.0	5.0	0.0	3.0	10.0	2.0
Poland	2.0	13.0	1.0	3.0	3.0	0.0	0.0	0.0	0.0	1.8	3.0	2.0
Slovakia	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	6.0	3.0
Slovenia	2.0	9.0	6.0	6.0	6.0	0.0	2.0	10.0	2.5	2.0	10.0	3.0
Slovenia [1]	2.0	9.0	1.0	2.0	4.0	0.0	0.8	6.7	2.0	1.3	12.0	2.0

Table AII.4 EPL Index: Regulation of Temporary Forms of Employment (6 indicators).

	Fixed-Term Contracts			Temporary Work Agencies		
	Valid reasons for use other than 'temporary activity'[1]	Maximum number of consecutive contracts	Maximum accumulated duration	Types of activities for which agency can be hired	Restriction on renewals	Maximum accumulated duration of contracts
	Scale 0-3	Number	Months	Scale 0-4	Yes/No	Months
Czech Republic	2.5	no limit	no limit	4	No	No limit
Estonia	1.0	no limit	60	4	No	No limit
Hungary	2.5	no limit	60	4	No	No limit
Poland	3.0	2	no limit	4	Yes	No limit
Slovakia	1.0	no limit	36	4	No	No limit
Slovenia	1.0	no limit	no limit	1	No	2 months
Slovenia[2]	2.5	no limit	36	4	No	No limit

Source: OECD Employment Outlook (1999), Estonian Labor Code, Slovene current and proposed Labor Codes, Slovak Labor Code.
1/ Temporary activities include specific projects, seasonal work, replacement of temporarily absent permanent workers (on sickness and maternity leave), and exceptional workload
2/ Based on proposed law.

Table AII.5 EPL Index: Procedures and Standards for Collective Dismissals (4 indicators).

	Definition of collective dismissal	Additional notification requirements	Additional delays involved	Other special costs to employers
	Scale 0-4	Scale 0-2	Days	Scale 0-2
Czech Republic	4	2	83	0
Estonia	3	2	46	1
Hungary	3	2	47	0
Poland	3	1	32	2
Slovakia	2	2	60	1.5
Slovenia	3	2	60	1.5
Slovenia[1]	4	2	45	1.5

Source: OECD Employment Outlook (1999), Estonian Labor Code, Slovene current and proposed Labor Codes, and Slovak Labor Code.
1/ Based on proposed code.

Annex III. Trade Unions and Collective Bargaining in the EU Accession Countries.

- The Czech Republic

There are currently two main trade unions, and two main employer associations in the country. All of them operate on the basis of free association; that is, agreements signed between unions and employer associations are only binding for union workers and firms belonging to the employer association (i.e. if a firm disagrees with a certain industry-level agreement, it is free to leave the employer association and ignore such agreement).

Labor unions in the Czech Republic are very weak, with the exception of those in sectors where the presence of public enterprises is still substantial. As a consequence, union coverage is limited, with only 30% of the work force being covered by the 1,222 collective agreements signed in 1998, and the number of new unions in privatized and new companies is low.

Wage bargaining occurs at multiple levels. First a tripartite body, composed of representatives from trade unions, employer associations, and the Ministry of Labor and Social Affairs, determines aggregate wage growth and basic working conditions (provided the government is willing to participate in the negotiations). Second, there are industry- and firm-level negotiations between employers and unions. During these, however, wages are *de facto* set by employers, with the exception of the public where negotiations must comply with a pre-set wage grid.

Finally, although initially the tripartite body was responsible for the determination of the minimum wage, since the mid-1990s adjustments are made unilaterally by the ministry of Labor when considered necessary.

- Estonia

During the 1990s, union membership declined in Estonia from almost 100 to 30%. This decrease was mainly due to the privatization process, together with the increasing importance of small and foreign firms, where union presence is generally weak. In addition, the bulk of economic activity shifted from manufacturing, where traditionally unions were strong, to services.

The level of coordination among employers is not high either. They are represented, only on a voluntary basis, by a single employer association that covers around 6,000 firms or 200,000 employees (out of a total of approximately 640,200). As a consequence of the weakness of social partners, the government plays a major role in shaping industrial relations, the basis of which are then laws rather than agreements.

Both unions and employers are invited to participate in the design of such laws through tripartite negotiations. Discussions, however, focus on working conditions rather than wages. These are generally determined unilaterally by the employers, at the firm level, or by the government in the case of public-sector workers.

- Hungary

After transition, trade unions have been mainly relegated to operate in newly-privatized state firms, since they have gained little representation in new companies. This implies that unions are strong in heavy industries and weak in the expanding service sector.

General economic policy issues and labor matters are discussed in two different forums. The first is the Economic Council, a *consultative* body composed of different or   iizations including trade unions and employer organizations, multinational investors, the Hungar... National Bank and the Hungarian government. The second forum is the National Labor Council, a tripartite council for consultation and negotiation on labor issues including employment legislation, industrial relations and social policy, training, wages, work-place safety regulations, etc.

Although the National Labor Council is also empowered to set the national minimum wage and recommend wage increases, centralized collective bargaining has never been very important in Hungary. Wage deregulation had began already before the transition, and during the privatization period most private-sector wages became freely negotiable at the industry- and firm-level. Hence, it is only in the public sector, regulated through a strict wage tariff system, that some form of collective bargaining is still binding.

- Poland

Unlike its Central European neighbors, one of Poland's labor market main features is the large number of labor organizations that operate in it. Trade unions and other employee organizations, which started and accelerated the transition process, still play an important role. Currently, the two most important trade union confederations are Solidarity and the Organization of Post-Communist Trade Unions (OPZZ), but there are also another nine smaller nationwide union confederations, 273 national trade union organizations, and about 24,000 local trade unions, organized by enterprise, industry, or region. Similarly, there are more than 1,000 employer organizations across the country.

Unions enjoy by law extensive power in the areas of worker rights, wage policy, and social benefits. In contrast they have no control over managerial decisions regarding company strategy and ownership transformations. A fact that in the past has led them to initiate numerous strikes to express dissatisfaction with the privatization process. In the last few years, constant growth in the numbers of small and medium enterprises (e.g. 90% of all firms outside the agriculture sector have five or fewer employees, and 89% of these are sole proprietorships) has eroded union power, so that most of their current activity is concentrated in large, heavy industry firms yet to be privatized. This has led many to blame unions for the inefficiencies that plague these large enterprises.

Since 1995, industrial relations are organized through the Tripartite Commission, which includes representatives of the government, employers associations and trade unions. Other smaller, more localized organizations - composed of trade unions, local government officials, employers associations and groups of unemployed workers - serve as consultative and advisory bodies to the heads of general administrative organs.

Wages negotiations between employers and workers can take place at the industry and the firm levels. However, collective agreements can be adopted only when a union is present. This implies that, in practice, collective agreements cover mostly state-owned or big privatized companies, rather than newly created private firms. As a consequence, the average pay in the public sector has remained significantly higher than that in the private sector during the last decade.

- Slovakia

Union coverage is fairly extensive in Slovakia. Moreover, unions play an important role in the design of industrial relations since the Employment Act (1997) stipulates that they be represented as a social partner at all levels of the National Labor Office and its organs. The Confederation of Trade Unions, composed of 42 independent groups, is the largest union, while the two most important employer organizations are the Association of Employers and the Association of the Slovak Republic, with 27 member organizations.

Slovakia adopted a tripartite system to regulate labor and industrial affairs in 1990. For this purpose, the Council of Economic and Social Agreement was created, comprising a total of 21 representatives from trade unions, employer associations and the government. Among other functions, the Council decides on the minimum wage and the Minimum Living Standard (i.e. poverty line), and further wage negotiations are conducted at the industry and firm level. Such negotiations, as well as the organization of strikes, are regulated through the Act on Collective Bargaining.

- Slovenia

There are 130 national trade unions in Slovenia operating along industrial and occupational lines. Although there are no official figures on membership, 21 out of these 130 unions are considered 'representative' (i.e. membership represents at least 15% of all employees in the particular industry/occupation the union operates in). Employers, on the other hand, are organized in three different associations, and their interests are also represented by the Chamber of Commerce, to which membership is compulsory.

According to the current labor legislation, collective agreements are a main instrument for determining specific rights and duties between employers and employees.[16] Consultations occur first at the national level, resulting in (i) a collective agreement for the private sector which determines base wages and adjustment factors for 26 industries and 9 educational levels, and (ii) a collective agreement for the non-market sector. Both agreements constitute the basis for all other contracts, thus limiting wage variation across industries and firms.

In addition, social dialogue is also organized around the Economic and Social Council, founded in 1994. This is a national tripartite consultative body of fifteen representatives, five from each of its three members (the government, trade unions and employers). The Council provides recommendations concerning legislation, such as compulsory insurance schemes (old-age and disability pensions, social welfare, allowances), employment, labor relations, collective bargaining, prices and taxes, economic policy, etc., and such recommendations are then submitted to the Parliament. The Council also plays an important role as a facilitator of negotiations between unions and employer associations, helping them reach the agreements described above.

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[16] The proposed new labor legislation will determine most of the rights of employees at a minimum level, thus the conclusion of collective agreements will no longer be obligatory. The Law on Collective Agreements is in the process of adoption: the division into commercial and non-commercial sectors will be replaced by a division of profit and non-profit sectors.

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Summary Findings

This paper examines the labor market dynamics of six CEE countries over the last 10 years, paying special attention to the nature of labor market institutions these countries have adopted and their impact on labor market performance. This paper finds that, compared to EU countries, CEE countries fall in the "middle" of the flexibility scale regarding their employment protection legislation. While the effect of labor market institutions is hard to uncover, it should not be disregarded and they are likely to play an important role in the coming years.

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