AccessLab

Regional Labour Market Adjustments in the Accession Candidate Countries

Workpackage No. 1

Project Start up and Setting a Common Starting Point

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Regional and Labour Market Development in Candidate Countries

A Literature Survey

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EI - Hungarian Academy of Sciences - Institute of Economics
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ZEI - Centre for European Integration Studies
ZEW - Centre for European Economic Research

AccessLab

The 5th framework programme research project ACCESSLAB researches the capability of candidate countries' regions to deal with asymmetric shocks. Its goal is to provide analysts and policy makers with research results relevant to the process of enlargement. The project takes a broad and comparative view of labour market adjustments to address these issues. It examines the topic from both a macroeconomic and microeconomic viewpoint. It considers different adjustment mechanisms in depth and compares results with the European Union. It draws on a) the experiences in transition countries in the last decade, b) the experience of German integration and c) the experiences of border regions to gain insights on the likely regional labour market effects of accession of the candidate countries.

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REGIONAL AND LABOUR MARKET DEVELOPMENT IN CANDIDATE COUNTRIES

A LITERATURE SURVEY

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Introduction[1]

Understanding the workings of labour markets in candidate countries and European Union member states is important for both normative as well as positive reasons. From a normative perspective it is important to analyse how countries from such a starkly different background as that of the current candidate countries have coped with the dramatic changes in labour demand and how their adjustment differs from long established market economies. In the context of transition, economic theories can be tested in a highly volatile environment and institutional settings that differ widely from those in mature market economies. From a positive point of view the capability of (regional) labour markets in the candidate countries to cope with changes in labour demand and supply will be of particular relevance in the process of European integration.

This research project is interested in assessing the capability of candidate countries' regional labour markets to adjust to "shocks" to labour demand and supply. In this context the current flexibility of labour markets is an important starting point of our analysis. This literature survey presents an overview of the labour market developments in the Central and Eastern European candidate countries and results concerning different aspects of "labour market flexibility".

We are particularly interested in the effects of European integration on the workings of regional labour markets. Answering this question is, however, plagued by a number of methodological problems. These stem from a) the uniqueness of integrating the current candidate countries into the European Union, which makes it difficult to draw valid comparisons from history and b) the possibility that integration may itself impact on the capability of candidate countries to adapt to "shocks".

We propose three "historical analogies" to deal with these methodological problems:

- First, we use the experience of regional labour market development in current candidate countries in comparisons with current member states of the EU. This enables us to account for the institutional differences between candidate countries and current member states. We are thus able to assess how regional labour markets in candidate countries react to "shocks", given the current institutional set-up in these countries, and the ways in which this reaction differs from that in current member states.

- Second, we use the experience of German unification as the only historical example of complete integration of a formerly planned economy into a European market economy. While this example may not represent a fully valid historical analogy to the European integration process due to differences in the speed and scope between German unification and European

integration, it will allow us to assess some of the issues arising from the potential endogeneity of the transmission mechanism to integration in an extreme setting, where the institutions of one country were fully integrated by another.

- Third, we will use the experience of recent European integration processes along border regions. This provides a further opportunity to gauge the effects of endogeneity of institutions by the adjustment capabilities of regional labour markets. In contrast to the case of German unification, this comparison will encompass integration processes which are more comparable in scope and speed to what may be expected from future European integration. However, it fails to take full account of the differences in economic development and institutions between current member states and candidate countries.

This literature survey marks the "start up" of the project. It aims at forming both a common view and definition of the problems addressed, as well as bringing together previous research on the topics of regional and labour market adjustment in the candidate countries in order to identify a "common basis" concerning the topics covered in the project.

In this survey our main interest is with summarising the empirical findings. In the next chapter we review institutional and labour market developments in the candidate countries since the political reforms which marked the start of transition. In chapter 2 we present some literature on the potential changes of institutions, trade, migration and FDI which may be triggered by enlargement. In chapter 3 we summarise empirical findings concerning labour market dynamics and adjustment, and chapter 4 then looks at regional development. Chapter five summarises the research on the effects of the two other examples of European Integration which we have chosen, and chapter six concludes the survey by discussing how the results can be interpreted with regard to European integration and posing some questions for further research.

Labour Markets and Institutions in Candidate Countries – How Different Are They?

In the ten years since the beginning of market-oriented reforms in the Central and Eastern European Countries (CEECs), the debate of economists on the workings of labour markets in this region has passed through a number of distinct phases, marked by the predominant policy challenges faced in the countries under consideration. In the early analyses the main dispute was on the optimal speed of transition. Virtually all analysts expected an initial drop in employment levels and an associated surge in unemployment arising from the shedding of labour in unproductive firms at the outset of transition. There was, however, some debate about how long it would take for these initial employment losses to be compensated by the creation of new and viable activities. One group of authors (e.g. Sachs, 1992; Sachs and Lipton, 1990) suggested that once market forces were unleashed, new activities would rapidly develop. Another group (e.g. Kornai, 1989; Brada and King, 1992) tended to stress the institutional differences between planned and market economies and argued that without building the institutional framework of market economies – which would require some time – no recovery would be possible.

Models of the optimal speed of transition (OST) literature, see Aghion and Blanchard, 1993; Chadha, Coricelli and Krajnak, 1993; Boeri, 2000) took an intermediate position in this debate. They focused on the problems associated with moving from a primarily state-owned to a privately owned economy. For instance, according to Aghion and Blanchard (1993), governments can influence the downsizing of the state sector through reductions of subsidies to state-owned enterprises and the creation of unemployment benefits. The central trade-off is that, if subsidies are reduced too slowly, this will cause low unemployment rates and thus upward wage pressure, which slows the growth of the new private sector. Reducing subsidies too quickly, however, would erode the tax base used to finance unemployment benefits and thus necessitate higher wage taxes. This too would increase total wage costs and thus hamper the development of the new private sector.

Recently, the emphasis in the analysis of the most advanced candidate countries has shifted from problems associated with transition to issues of accession to the European Union. In this literature (see: Knogler, 2001; Gacs, 1999; Eurostat, 2001, 2001a; and Belke and Hebler, 2002) the major focus is on determining to what degree candidate countries have converged towards EU standards in terms of institutions and labour market indicators such as employment, unemployment and participation rates.

The Labour Market Situation in Candidate Countries

Employment

This literature suggests that the "transformation crisis" (Kornai, 1994) has been prolonged. For instance Boeri, Burda and Köllö (1998), in a recent survey of the labour market developments in the large candidate countries (Bulgaria, Czech Republic, Hungary, Poland, Romania and Slovakia), find that from 1990 to 1996 employment rates of males decreased in excess of 10% of the working age population and even more dramatically for females in all countries but the Czech Republic. Furthermore, by 1998 only three (Poland, Slovenia, and Slovakia) of 13 transition economies analysed by Mickiewicz and Bell (2000) had reached their 1989 GDP levels; employment levels in 1996 were between 5.6% (Romania) and 22.9% (Hungary) below pre-transition levels. Boeri (2001) finds that among the three large groups of countries analysed (Vysegrad, Balkan and FSU), only the first has attained GDP levels exceeding those at the start of transition by 1998, while employment levels remained well below 1989 levels throughout. A number of stylised facts stick out when analysing this decline:

1. Probably the most important is the heterogeneity among transition economies. In general only the Central and Eastern European candidate countries have re-emerged on the path of employment and GDP growth, while countries of the former Commonwealth of Independent States (CIS) are still in decline or just about returning to growth. But even within Central and Eastern European candidate countries, disparities seem to be large, persistent and increasing. Several studies test for convergence in unemployment rates, both amongst the transition economies and in relation to the EU. Boone and Maurel (1998) found some evidence for convergence of unemployment rates between seven candidate countries and the EU. Similarly, Andreff (1999) tests for convergence in several nominal and real indicators, evaluating beta (β) and sigma convergence (σ) plus coefficients of variation (σ/m). He observes that 'the unemployment rate is, ironically, the real variable with the clearest convergence between the TE-10 (i.e. the candidate countries) and the EU.' He also finds that the 'divergence of unemployment rates among both the TE-10 and TE-5 ('first wave') has tended to decrease'. Similarly, Mickiewicz and Bell (2000) report convergence in unemployment rates amongst the whole group of transition economies, both as measured by standard deviation and coefficient of variation. They argue that the process of convergence in unemployment amongst the TE has been driven by increase in unemployment rates in late 1990s in countries, which postponed restructuring and therefore avoided early emergence of open unemployment, a strategy, which proved to be unsustainable in the longer term.[2]

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[2] Slow progress in restructuring relates to the CIS countries in particular. Amongst the EU candidate countries, Czech Republic has been an outlier, with much lower unemployment rates throughout the 1990s. Increase in unemployment in Czech Republic in late 1990s also contributed to convergence in unemployment rates.

The assessment of convergence in labour market indicators links to literature on convergence in income levels and on determinants of growth of income during transition. The link between the two is obvious, if we notice that 'labour is a fundamental determinant of growth, because of the sheer size of the labour force as well as the quality of the labour input (human capital)' (Campos and Coricelli, 2002, p. 14). However, the same authors observe that the contribution of human capital and labour to growth is still not well explored in relation to transition economies (Ibid., p. 46-47).

A Recent study by Wagner and Hlouskova (2002) contrasts the assessment of σ-convergence in income levels within the EU, with that of the candidate countries and the EU. While, the process of convergence within the EU is visible, the dispersion within the candidates countries group increased significantly between 1990 and 1994 and stagnated thereafter. Substantial research has gone into determining what were the causes of this divergence and corresponding differences in growth rates. Important contributions include Fischer *et al.* (1996, 1996a, 1997), Sachs (1996), DeMelo *et al.* (1997), Selowsky and Martin (1997), Christoffersen and Dole (1998), Havrylyshyn *et al.* (1998), Aslund Boone and Johnson, 1996, Berg *et al.* (1999), Fischer und Sahay (2000), Campos and Coricelli (2002). This literature suggests that at the national level both variables measuring institutional reforms (such as EBRD transition indices) and macroeconomic stabilisation indicators are important correlates of the "success of transition". Initial conditions play some role, but their effect is fading with time.

2. Employment losses were unevenly distributed across different groups in the population. Boeri, Burda and Köllö (1998), in looking at different age and gender cells in the employment distribution, find that employment rates declined most markedly for the young and the older population.

These stylised facts do not suggest that labour markets in candidate countries have been highly dynamic. But employment creation has been low in many countries of the European Union (and correspondingly, long term unemployment remained high). Nickell *et al.* (2001) are able to explain most of the long term deterioration in labour market performance by institutional factors, i.e. changes in benefit systems, labour taxation, union variables and employment law in particular (for surveys of earlier literature, see: Bean, 1994 and Siebert, 1997). Also the literature on labour market adjustments in the EU (Fatas, 2000, Decressin and Fatas 1995) shows that shocks to employment are highly persistent in EU countries. This suggests that perhaps the differences between candidate countries and EU member states may be overrated in particular in the light of the substantial heterogeneity among member states in the European Union.

Recently, a number of studies have argued that problems in the accession countries may be less pronounced than initially expected. Gros (2002) suggests that while candidate countries will remain substantially poorer than the average member state for some years to come, their higher GDP growth may make integration less problematic than suggested by income differentials alone.

Huber (2002) analyses regional labour market adjustment in the Vysegrad countries (Poland, Hungary, Slovakia and the Czech Republic) plus Slovenia. He finds that in general, regional unemployment rates and wages are less persistent than in the EU and that wages react more strongly to regional unemployment rates in the candidate countries than in member states.This reflects positively on the capacity of regions to absorb region specific-shocks. Boeri, Burda, Köllö (1998) argue that the Central and Eastern European candidate countries seem to have overtaken development in some middle income countries such as Portugal, which could claim higher employment rates, in 1989. The employment rate in the Czech Republic in 1998 exceeded that of the Netherlands and Austria – two high employment countries –, while that of Poland was comparable to Ireland's. Only Hungary's employment rate was below the level of Greece. Mickiewicz and Bell (2000) finds that the share of female employment was higher in the Central and Eastern European candidate countries than in most EU member states. Finally, Knogler (2001) applies the same standards as developed by the DG Employment to monitor the development of labour markets in the member states and candidate countries. He finds that for most indicators, the majority of candidate countries does not differ strongly from the EU average and in general perform better concerning indicators of gender differences.

Table 1: Indicators of employment in candidate countries, 2000

	Employment rate	Employment rate men	Employment rate women	Employment gender gap*	Employment rate 55–64
Bulgaria	49.2	53.4	45.3	0.85	18.9
Czech Republic	64.9	73.1	56.8	0.78	36.1
Estonia	60.6	64.3	57.1	0.89	43.0
Hungary	55.9	62.7	49.4	0.79	21.9
Lithuania	60.1	61.8	58.5	0.95	42.2
Latvia	58.2	62.3	54.3	0.87	35.4
Poland	55.1	61.2	49.3	0.81	29.0
Romania	64.2	69.5	59.0	0.85	52.0
Slovenia	62.7	66.7	58.5	0.88	22.3
Slovakia	56.3	61.6	51.1	0.83	21.5
EU average	63.6	73.2	53.9	0.74	38.5
EU maximum	76.4	80.7	72.1	0.89	65.1
EU minimum	53.4	67.6	39.3	0.58	25.0

Source: Eurostat 2001 (candidate countries), OECD 2001 (employment rates for EU). * Ratio of male and female employment rate

In Table 1 we show employment rates of the candidate countries relative to the EU average. In 2000, these were distributed at the lower end of European Union member states. Only the Czech Republic and Romania could claim employment rates above the EU average in 2000. Furthermore, the table suggests that the low employment rates in candidate countries are primarily

due to low employment rates of men and older workers, while gender differences are less pronounced.

Participation and Unemployment

The steep and highly persistent decline in the employment rates in the 1990s brought forth both reductions in the labour participation rate and increased unemployment. However, the extent to which these declines contributed to employment losses differed among countries (see: Boeri, Burda and Köllö, 1989). For instance in Hungary the decline in employment rates from 1989 to 1996 amounted to 22.9 percentage points. Of this, 16.7 percentage points can be explained by reduced participation and only 6.9 by increased unemployment (see Table 2). In the Czech Republic and Bulgaria, over half of the decline in employment rates can be explained by declines in participation. By contrast, in Romania only 0.9 percentage points of the 5.6 percentage point reduction in employment rates can be explained by reduced participation. Demographics contributed only modestly to employment declines, from +1.8% (Bulgaria) to –1.6% (Slovak Republic).

Table 2: Breakdown of the decline in employment rates (1989–96; percent values)

	Change in employment rate	Change in unemployment	Change in non-employment	Change in working age population
Bulgaria	-22.2	9.9	10.5	1.8
Czech Republic	-9.6	2.6	8.0	-1.0
Hungary	-22.9	6.9	16.7	-0.7
Poland	-13.1	9.4	4.6	-1.0
Romania	-5.6	6.3	0.9	-1.5
Slovak Republic	-11.6	8.4	4.7	-1.6

Source: Burda, Boeri, Köllö (1998).

The diversity in participation and unemployment rates among candidate countries mirrors the differences between member states. In 2000, the participation rate of the Czech Republic would have been the 6th highest among the EU countries if it had been an EU member. Only Denmark, the UK, Finland, the Netherlands and Germany could claim higher participation rates. By contrast, Hungary would have ranked second last among the EU countries in 2001 – only Italy had slightly lower participation rates (see OECD, 2001).

In contrast to EU member states, gender differences in participation are much less pronounced in candidate countries. In 1997, the country with the lowest share of female labour force in total labour force among the candidate countries was Romania with 44%. This was still higher than in some highly developed EU members such as the UK, Germany, Austria or the Netherlands, and it exceeded levels of southern European countries by far (see Mickiewicz and Bell, 2000). In theory, the fact that participation rates of women in transition have not declined as rapidly as expected, can be attributed either to preferences and established social patterns, changing income

opportunities for women or preservation of some elements of generous institutional child care provision, which was in place at the starting point of transition. In this context, Bonin and Euwals (2001) find that almost unchanged participation rates of East German women can be attributed to two opposite tendencies. On the one hand, the high preference of women to participate in the labour market has been reduced during transition. On the other hand, higher income and the fertility decline among East Germans induced higher participation rates. Similar evidence is presented by Saget (1999) for Hungary. He finds that the labour supply decision of women reacts strongly to own wage but hardly to household income. It suggests that the Hungarian women take their labour supply decision independently of their household's income.

Heterogeneity among candidate countries is also the central theme concerning both the level and the structure of unemployment (see Table 3). The average unemployment rate in candidate countries exceeded that of the EU by some 4 percentage points, but a number of countries (notably Hungary, Romania and Slovenia) could claim levels below the EU average and the Czech Republic's unemployment rate approximately approached the EU average. In a number of other countries (such as Bulgaria, Poland, Lithuania and Slovakia) unemployment exceeded the unemployment levels of Spain.

Table 3: Indicators of Unemployment in candidate countries, 2000

	Unemployment rate	Unemployment rate for men	Unemployment rate for women	Unemployment gender gap	Youth unemployment	Long-term unemployment
Bulgaria	18.7	19.0	18.3	0.97	27.0	52.8
Czech Republic	8.8	7.4	10.5	0.57	26.0	49.1
Estonia	13.5	15.0	11.8	0.79	25.3	47.4
Hungary	6.6	7.2	5.8	0.81	30.4	47.8
Lithuania	15.9	18.2	13.5	0.74	26.7	52.4
Latvia	14.4	15.3	13.5	0.88	22.8	55.8
Poland	16.6	14.8	18.6	0.74	31.9	44.7
Romania	7.7	8.2	7.1	0.87	19.0	49.2
Slovenia	7.1	6.9	7.2	0.96	19.5	62.7
Slovakia	19.1	19.5	18.6	0.95	17.4	53.8
CEE average	12.5	12.0	13.0	1.08		
EU average	8.4	7.2	9.9	0.73	24.0	34.4
EU maximum	14.4	10-0	21.0	2.10		61.1
EU minimum*	2.8	2.1	3.8	1.81		18.9

*Excluding Luxembourg . Source: Regio database, Eurostat.

An analysis of the structure of unemployment reveals further stylised facts:

- As with most other indicators, gender differences in unemployment rates are less pronounced than in most EU member states. In 2000, the unemployment gender gap in all candidate

countries except the Czech Republic was (in part substantially) narrower than in the member states. This finding is also confirmed by Knogler (2001) who finds that unemployment rates of men and women were of almost comparable size in all candidate countries except Slovakia in 1994 and have only slightly diverged since then. Despite this, Ham *et al.* (1999) in a micro-econometric study show that the higher incidence of unemployment among women in the Czech and Slovak Republics cannot be explained by differences in characteristics between men and women and therefore may result from "discrimination".

- Long term unemployment as a share of total unemployment exceeds EU levels. This, however, should be put in relation to the higher average unemployment rate in candidate countries. Mickiewicz and Bell (2000) show that in 1998 the share of long term unemployment of the Central East European OECD members fitted well with that of current EU Members, after controlling for the higher unemployment rates. However, both the EU as well as the candidate countries long term unemployment was high relative to non European OECD members even after controlling for higher unemployment rates.

- Youth unemployment levels are comparable to the EU member states. This is confirmed by the analysis of Mickiewicz and Bell (2000) who find that youth unemployment is comparable to the EU levels, even after controlling for differences in the level of unemployment.

- As in Western Europe, less qualified workers are more likely to experience unemployment (and in particular long-term unemployment). However, in contrast to many Western European countries where unemployment risk is steeply declining with educational attainment, there is some evidence that in candidate countries persons with vocational training are more likely to become unemployed than other groups (see: Boeri, Burda and Köllö, 1998, Mickiewicz and Bell, 2000). This could be interpreted as a result of the previous regime which over-invested in vocational education and the high specificity of vocational training in communist times (see: Boeri and Keese, 1992).

In particular, the finding of high unemployment risks for workers with vocational training as well as the fact that, in contrast to popular belief, the educational attainment of the labour force in candidate countries was not higher than in Western European countries, but rather more focused on narrow vocational training at the expense of higher education (see Table 4 as well as Boeri, 2001), suggests that education is an increasingly important determinant of labour market success. This applies both to training of adult workers as well as basic education. There are, however, only few studies of either the determinants for enrolling in adult education or the change of enrolment rates of youths in the candidate countries. There are few notable exceptions. Boeri, Burda and Köllö (1998), who find that enrolment rates in higher education are still lower in candidate countries than in the other OECD countries, but that the gap is closing. Köllö and Kertesi (1999) present evidence that Hungarian youths are reacting to market incentives by opting for university education in greater numbers, since returns to human capital have risen. Berger, Earle and

Sabirianova (2001) who find that retraining in new fields has higher returns in Russia than in the US but that there has been a steady and continuous decline in training from 1992 to 2001. Finally, Micklewright (1999) shows that enrolment rates by social class of parents are similarly unevenly distributed in the candidate countries as they are in Western Europe. Thus elites in these countries thus secured similar educational advantages as in the West.

Table 4: Educational attainment of the workforce at the outset of transition (% of labour force)

	Primary or lower	Vocational	Secondary	Higher
Bulgaria	44.6	15.8	30.0	9.6
Former CSFR	26.0	21.0	43.8	9.2
Hungary	38.4	23.1	26.9	11.6
Poland	34.2	29.5	27.9	8.4
Romania	35.8	31.4	24.0	8.8
France	35.3	-	46.0	14.6
Netherlands	12.6	-	61.3	19.7
Spain	48.4	-	46.1	5.5

Source: Boeri and Keese (1992).

Institutional Barriers to Labour Market Flexibility

Empirical evidence thus suggests that in terms of macro-economic labour market indicators candidate countries are by and large comparable to the less well performing member states such as Spain and Italy. This is surprising in the light of parts of the early literature on transition, which feared long and persistent unemployment. This fear was amongst others driven by the markedly different institutional framework of candidate countries. Mickiewicz and Bell (2000) characterise the stylised labour market institutions in socialist countries by four features:

1. The employers of all employees was the state, and dependent employment was the primary form of earning income. This led to a number of unique institutional features. In particular, since the state was equivalent to enterprises, a number of social services were administered by enterprises rather than regional or national bureaucracies.

2. Trade unions in socialism functioned as a "transmission mechanism" under the control of the ruling socialist party and had very little real political power in wage negotiations. Employer organisations did not exist. This implied that wage setting institutions comparable to those of most market economies and social partnership were non-existent as these economies emerged from socialism.

3. Unemployment did not exist, the labour code provided rigid employment guarantees and there were extensive procedural safeguards against changes in pay and working conditions. This implied that institutions such as unemployment benefits were unknown and that employment protection tended to be rather stringent.

4. Fourth, wage decisions in the socialist system were often oriented towards sectoral levels with little leeway for enterprise level differences. Wages were more egalitarian than in most mature market economies (see Freeman 1994). In particular, returns to education tended to be lower and compensating differentials for bad working conditions such as in mining and heavy industry higher than in market economies.

Given these institutional differences, it was no surprise that substantial institutional changes had to occur in the face of transition, and these applied to four fields:

- First, a social security system had to be created to safeguard income for the unemployed.

- Second, wage formation had to be regulated so as to be in accordance with the workings of a market economy.

- Third, active labour market policy measures had to be designed which would be capable to help the unemployed to adapt to the changed labour demand.

- Fourth, labour market regulations such as employment protection and minimum wage legislation had to be newly designed.

Each of these endeavours presented its own tradeoffs. For instance, in the optimal speed of transition (OST) literature it was often argued that in the face of expected high unemployment rates at the outset of transition, generous unemployment benefit regimes may be a way to "buy" political support for reforms from the unemployed (see: Roland, 1994), while Boeri (2001) argues that the high unemployment rates in transition can be attributed to excessively generous non-employment benefits.

Social Insurance Schemes

Unemployment benefits, while generous at the beginning of transition, were quickly tightened in the face of increased fiscal costs (Scarpetta and Reuterswald, 1994). For instance, Mickiewicz and Bell (2000, p. 162) in a detailed survey of the unemployment benefit system in Poland, Hungary and the Czech Republic find that "... the real difference between Central and West European countries is that the former lack the guarantee of long-term or indefinite duration benefits which characterises EU social policies. In Central European countries replacement rates are relatively low, duration constrained and initially generous eligibility conditions have been tightened. The unemployment benefit system can be characterised as relatively restrictive."

Boeri, Burda and Köllö (1999) argue that figures of the registered unemployed relative to interview-based unemployment measures as those of the Labour Force Surveys are an encompassing measure of the benefits accruing from the unemployment benefit system. These benefits may arise from the income support provided by benefits, as well as from access to employer information, job counselling and manpower training programmes or other benefits (such

as health insurance and others) accruing from registering as unemployed. These figures vary widely. In countries where the ratio of registered unemployment to unemployment measured by surveys is lower than one (such as the Czech Republic) one can assume that job information services and benefits attached to unemployment registration are relatively unattractive, while in countries where the ratio is larger than one (such as Hungary, Poland, Romania or Slovenia) it has to be assumed that registering as unemployed is associated with substantial additional benefits.

As argued recently by Boeri and Terrel (2002), since unemployment benefits in candidate countries are in general less generous than in the EU member states and eligibility is shorter, focusing on the wider category of non-employment benefits (which include welfare benefits, sickness benefits, active labour market policies and disability benefit as well as unemployment benefits) may be important. For this reason they calculate the average replacement ratio for a fictitious person who earned twice or two thirds the average income in candidate countries for two years including all forms of social assistance which this person will gain. They find that this replacement ratio lies between 40% and 52% for people earning only two thirds of the average salary.

Table 5: Size of non-employment benefits in candidate countries

	Non-employment benefits as % of GDP	Average replacement ratio in the first two years of unemployment of a person earning...	
		2 times the average wage	2/3 of the average wage
Bulgaria	1.3	18	47
Czech Republic	3.6	21	52
Hungary	2.4	18	50
Poland	5.0	14	46
Romania	1.9	16	40

Source and details of calculation see: Boeri and Terrel (2002).

Active Labour Market Policy

As in Western European countries, active labour market policies have been an integral part of labour market policy in transition. They aim at enhancing flexibility of workers. While results on the effectiveness of such measures is as ambiguous as in much of the evaluation literature in Western Europe (see: chapter 3) and budgets for this policy have differed between countries, the bandwidth of such expenditure seems to be within European bounds. Boeri, Burda and Köllö (1998) document that the CEE candidate countries, based on the advice of most international organisations, have been quick to design and implement a wide variety of active labour market programs. At the same time within the CEE candidate countries, a gap has opened up between countries which spend a substantial amount on active labour market policies, such as Slovenia, Hungary and (relative to the low unemployment rates) the Czech Republic, and countries that have spent less on active measures such as Bulgaria and Poland (see Boeri, Burda and Köllö (1998)).

Furthermore, the structure of ALMP spending differs compared to Western European countries. Candidate countries typically spend more on subsidised employment than EU and EFTA countries and less on all other measures. For instance, Slovenia spent 0.36% of GDP on subsidised employment and Hungary 0.29% relative to 0.2% in the EU and EFTA countries. In particular, labour market training expenditure is substantially lower than in the EU. In candidate countries it amounted to between 0.01% and 0.11% of GDP relative to 0.3% in the EU (see Burda, Boeri and Köllö, 1998).

Table 6: Spending on labour market programmes, 1998

Country	Total spending (as % of GDP)	Active spending (as % of GDP)	Active spending (% of total spending on LMPs)
Czech Republic	0.36	0.13	35.7
Hungary	1.01	0.39	38.6
Poland	1.00	0.44	44.4
CEE average	0.79	0.32	39.6
EU average	2.80	1.07	37.7
EU maximum	4.72	1.74	25.9
EU minimum	0.84	0.34	61.1

Source : OECD 2001.

Comparing more recent data from the OECD (2001) employment outlook for the OECD member countries (see Table 6) with average EU data suggests, however, that candidate countries have reduced spending on active labour market policy more than EU member states. EU member states reduced active spending from 1.14% of GDP in 1994 to 1.07% in 1998. In the candidate countries by contrast, spending fell by 0.15% of GDP from 1993 to 1998. In particular in Hungary spending on ALMP has been reduced substantially (by 0.25% of GDP). Although this may in part be explained by declining unemployment rates, by 1998 ALMP spending was comparable to Asian and North American levels rather than Southern European levels in the three candidate countries surveyed.

Worker Protection Measures

A detailed study of employment protection legislation among OECD member states including Hungary, the Czech Republic and Poland conducted by the OECD (1999) (see table 7) finds that regulations concerning collective dismissals tend to be higher in the candidate countries than in most EU member states. In particular notice periods are shorter, definitions of collective dismissals in general more stringent (starting with fewer than ten persons) and delays before dismissal longer than the European average (see OECD, 1999). Regulations concerning employment conditions for temporary work by contrast are substantially more liberal. In particular there are few to no restriction concerning temporary work, the number of renewals and the maximum cumulated duration of temporary work contracts (see OECD, 1999). Restrictions on regular employment

finally are less stringent only in Belgium, Ireland, the UK and Denmark than in the EU candidate countries.

This pattern suggests that labour laws in the candidate countries were primarily concerned with regulating mass redundancy rather than temporary work. This may reflect demand for policy, since mass redundancies were a common phenomenon in many transition economies, while acceptance of flexible work arrangements remained low despite the lack of regulation (see Bonin and Zimmermann, 2000), which in turn may point to more subtle differences in labour market adjustment in candidate countries. Due to a lack of part-time work, adjustment by hours may be weaker and quantity adjustments stronger than in EU member states.

Table 7: Indicators concerning the strictness of labour market regulations*

	Overall strictness of protection against dismissals	Overall strictness of mass redundancy regulations	Regulation of temporary employment	Overall strictness
Czech Republic	2.8	4.3	0.5	2.1
Hungary	2.1	3.4	0.6	1.7
Poland	2.2	3.9	1.0	2.0
Austria	2.6	3.3	1.8	2.3
Belgium	1.5	4.1	2.8	2.5
France	2.3	2.1	3.6	2.8
Germany	2.8	3.1	2.3	2.6
Ireland	1.6	2.1	0.3	1.1
Netherlands	3.1	2.8	1.2	2.2
United Kingdom	0.8	2.9	0.3	0.9
Greece	2.4	3.3	4.8	3.5
Italy	2.8	4.1	3.8	3.4
Portugal	4.3	3.6	3	3.7
Spain	2.6	3.1	3.5	3.1
Denmark	1.6	3.1	0.9	1.5
Finland	2.1	2.4	1.9	2.1
Norway	2.4	2.8	2.8	2.6
Sweden	2.8	4.5	1.6	2.6

Source: OECD (1999). * Indicators are composed indicators based on an analysis of various legal stipulations concerning the cited elements of labour market regulation in the candidate countries. Indicator take on a maximum value of 5 (very strict) and a minimum value of 0

Boeri, Burda and Köllö (1998) look at mass redundancy regulations for a more complete set of candidate countries. This comparison confirms the slightly more stringent mass redundancy regulations. In particular, most candidate countries stipulate periods of advance notice which may amount to a maximum of around three months, with only Romania – requiring just 15 days advance notice and Slovenia – 6 months – as outliers. All countries require consultations with

employee representatives before a mass redundancy, minimum severance pays range from one month's wages to over three months and are usually indexed to tenure. Often exceptions exist for small enterprises. Finally, definitions of mass redundancies start with a reduction of the labour force by 10%.

Legal stipulations, however, may be only a partial indicator of the severity of mass redundancy regulations, since enforcement of these regulations may be more important for the real life flexibility of the labour market. In this context, Boeri and Terrel (2002) argue that enforcement of these regulations has been weak because of limited court capacity and lacking capacity of labour inspectorates.[3]

Wage Setting and Income Policies

Among the institutions that have changed dramatically during the transition period are the trade unions and employer unions. Under socialism, trade unions often operated as "transmission mechanisms" used to justify and implement wage and social policy, without much open influence on wage setting, and employer unions did not exist. Starting out from this situation, trade unions developed in three distinct directions (see Freeman, 1994). The first was that successor unions, after some modernisation, continued their pattern of activities in the communist era. An example of such a case is the Czech Republic. In other countries such as Poland, unions are split between organisations of communist and opposition origins. Finally, in yet another case – that of Hungary – old communist trade unions split, while several new opposition unions formed, leaving a rather fragmented trade union movement. Employer unions, in contrast to trade unions, did not exist before transition. This made institutional development of such organisations rather difficult. Mickiewicz and Bell (2000) argue that many of these organisations are thus still fragmented and the role of social partners in policy making is small. In this context Vaughan–Whitehead (1998) finds that union coverage of wages negotiations is 30% in the Czech Republic and Hungary and only 13% in Lithuania.

Nonetheless, tripartite organisations of some form exist in all CEE candidate countries. Their powers and roles in policy making, however, differ across countries as well as time periods. In general the roles of employer federations and trade unions are weak, however. This is also documented by strike levels which were high only in Poland in the early 1990s (see Dorenbros, 1999). The EC's 2001 regular reports on the candidate countries' progress towards accession similarly comment on the need to strengthen and improve social dialogue for all candidate countries except Latvia.

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[3] The European Commission's regular reports on progress to accession point out the inadequate capacity of labour inspectorates in a number of candidate countries.

Due to the weak role of trade unions, workers' interests in candidate countries were often represented at the firm level by works councils (see Vaughan-Whitehead 1998). These obtained substantial power in a number of countries (in particular Poland, Hungary and Slovenia)[4] and usually had powers not only concerning enterprise wage negotiations but also with respect to the management of firms. Indeed it can be argued (see Boeri and Terrel, 2002) that low wage flexibility in some candidate countries resulted from strong works councils rather than strong trade unions.

Table 8: Minimum wages in candidate countries

	Mechanism	Adjustment	% workers paid minimum wages
Czech Republic	inflation trigger>5% adjusted once in 1991–1995	tripartite agreement	
Hungary	fixed amount, annual adjustment	tripartite agreement	3.8% (1997)
Poland	quarterly, 1.9 times social minimum	labour ministry in consultation with trade unions	4.5% (1996)

Source: Mickiewicz and Bell, 2000.

An area in which tripartite organisations have some competencies in candidate countries is in setting minimum wages. In the Vysegrad countries, tripartite organisations either formulate or consult on minimum wage setting, although details differ (see Table 8). These minimum wages have declined both in real terms as well as relative to real average wages. For instance, the Czech Republic's minimum wage amounted to 53% of the median wage in 1991 and fell to 21% by 1997, in Hungary the decline was from 45% to 37% before minimum wages were substantially increased in 1999. Only Polish minimum wages remained nearly unchanged (see OECD, 1998; Mickiewicz and Bell, 2000). The result of this was that minimum wages were not binding even for low-skilled workers. For instance Vaughan-Whitehead (1998) finds that in Hungary 10% of the workforce were working at the minimum wage in 1992 in the competitive spheres of the economy. In 1995 this number had declined to 2%.

As with mass redundancy regulations, the role of minimum wage regulations may be overrated in the candidate countries. Thus Boeri and Terrel (2002) argue that although candidate countries have minimum wages, the reason for the few adjustment made to these was the disinterest of policy makers, due to low enforceability of these regulations. They argue that in the context of transition economies, where bargaining institutions are weak and labour inspectors not very efficient, minimum wages may not be enforceable at all and their primary role may have been to define social benefits, since a number of these benefits are tied to minimum wage regulations.

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[4] Interestingly, works councils were relatively weak in former Czechoslovakia.

Conclusions

The purpose of this chapter was to determine to what degree candidate countries still differ from EU member states in terms of labour market institutions and outcomes. Summarising the comparative literature suggests that relative to the dramatically different starting conditions there has been substantial convergence towards continental European labour market outcomes in the last decade.

Concerning most indicators of labour market development, candidate countries are within the range of EU member states. There is, however, substantial heterogeneity among candidate countries and a number of particularities remain. First, the long and persistent declines in employment rates to levels which are in general lower than in the more successful member states indicates that most candidate countries have not been able to recoup the losses incurred at the start of transition and may hint at weak job creation as has also been found for some Mediterranean countries such as Spain. Second, the higher incidence of long-term unemployment, which ranges in the upper half of the EU member states for all candidate countries, suggests that the unemployed are a stagnant pool rather than rapidly moving from unemployment to new employment.

Institutionally there has also been convergence to EU standards. Most countries have opted for a continental European system of industrial regulations. They have put in place a system of active labour market policies, developed social partnership and implemented social security reforms. In the light of these substantial reforms in the last decade, the remaining legal differences between countries seem gradual rather than fundamental. Candidate countries in general have more severe mass redundancy regulations but their overall level of labour market regulations does not exceed Western European levels. Furthermore trade unions and social partnership organisations are arguably weaker than in many EU countries.

This said, it has to be noted that the scientific debate so far has paid little attention to issues of enforcement. Judging from the mostly anecdotal evidence and the EC's regular reports on progress to accession, however, enforcement of the social *acquis* and other labour law-related regulations seems to be substantially less stringent than in many member states of the EU.

The Challenges of EU Enlargement

Despite convergence and increased institutional similarity it is undisputed that enlargement of the European Union will have effects on the candidate countries, and in particular on the candidate countries' labour markets in terms of labour supply, demand and institutions. First, to join the Union they must take over its complete *acquis communautaire*. This will impact on both the competitiveness of candidate countries' industries through adoption of – in particular – environmental and competition policy and directly on labour market institutions through the social *acquis*. Second, accession will impact on migration, foreign direct investment and trade. Third, the new member states will become eligible for EU policies, in particular CAP and regional funds. Fourth, as integration proceeds to European Monetary Union, candidate countries will have to fulfil the Maastricht criteria, which will impact on their exchange rate, monetary and budgetary policies. This in turn will have implications for the labour market, to the extent that these policies were previously used to accommodate cyclical fluctuations and are now no longer available.

Aside from these "comparative static" considerations, accession also has implications on the incentives for political decision makers in the countries joining the Union. For instance, Clamfors (2001) recently argued that in a monetary union, where wage negotiations and labour market institutions are set nationally, incentives for labour market reforms may be lower than in a situation where each country has a currency of its own. When many countries decide on labour market institutions simultaneously and monetary policy is set at a supra-national level, each individual country will ignore the impact of its policy on (European-wide) inflation rates. In a situation where monetary policy is decided upon by national policy makers, by contrast, the interaction of wage and monetary policy will be internalised. Thus moving into EMU may increase the chance of co-ordination failure between monetary and income policy.

The accession of candidate countries may also change the incentives of European institutions in various ways. This is particularly relevant in the context of structural funds policy and European labour market and social policy since these are currently changing at the fastest pace. For instance, EPRC (2001) recently suggested that regional problems in candidate countries may require different policy approaches than are currently used in the EU; and Perotti (2001) argues that in a common market area where regional transfers are available to support poorer member states and migration is possible between countries, rich members could decide to pay higher transfers to poorer members to avoid immigration to their respective countries. Finally, it has to be expected that once candidate countries join the Union they will raise their own interests in major European policy debates. This will to some degree influence the outcomes of these debates and the evolution of European policies in a way that is not easily foreseeable at present.

Institutional Changes and their Potential Impact on Labour Markets

Adoption of the Acquis

At the institutional level, accession means in principle accepting the complete *acquis communautaire* although transitional arrangements (noteably concerning the freedom of movement of labour and services) have been negotiated. This may have both positive as well as negative effects on labour markets. A positive effect is that its adoption will in all likelihood add to the institutional quality in the candidate countries (see Delhey, 2001). This can be expected because current EU member states belong to the most highly developed when it comes to institutional quality.[5] This in turn may increase long-term growth prospects both because of higher internal growth and additional foreign direct investment (see below).

On the negative side, the *acquis* consists of a number of stipulations which may increase production costs and may thus reduce competitiveness of candidate country's industries. This applies in particular to environmental regulations but also to areas of competition policy (see, e.g., EPRC, 2001). This in turn may lead to smaller employment growth – at least in the short run – particularly in sectors which are heavily affected by such regulations or which were previously sheltered from international competition.

Furthermore, as recently warned by Burda (1998), adoption of the social *acquis* could damage the CEEC's labour market flexibility if they adopt the inflexible institutional set-up of some of the EU countries upon their accession. Although this may seem somewhat strong given the current nature of the social *acquis* in the European Union[6], it may still involve substantial costs. Feldmann (1999) for instance criticises the guideline on working hours, which stipulates a weekly maximum of 48 working hours and a minimum of four weeks of paid vacations. He argues that this reduced labour market flexibility and presents evidence that its implementation would have increased wage cost by more than 0.5% in the UK. Furthermore, he argues that the current stipulations concerning cross-border provision of services operate to protect the current rich member states of the Union from competition by poor countries, by preventing them from using their comparative advantage. A fact which tends to augment the benevolent interpretation of the social *acquis* (Boeri, Burda and Köllö, 1998) that it defines a set of common social standards, by a more cynical one which holds that it represents an attempt of the rich member states to export part of their labour market rigidities to avoid competition from the poorer member states.

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[5] In the IMF (2000) ranking of institutional quality, EU member states rank among the upper quintile, while candidate countries are predominantly ranked in the second quintile.

[6] According to Belke and Hebler (2001), transforming the social *acquis* will require the adoption of nine commission guidelines. Mayr (2001) in a recent case study of the Austrian experience identifies 16 European guidelines which had a direct impact on Austrian labour law after accession.

A further issue concerning the impact of the social *acquis* is its rapid development. This, on the one hand, makes it clear that accession and adoption of the *acquis* aims at moving targets. On the other hand, it opens the door for speculation regarding the self-interests of candidate countries concerning the development of European Union social and labour market policy. Belke and Hebler (2002) argue that, given that the comparative advantages of the poorer member states are already regulated by the Commission, this may result in accession candidate countries showing a greater interest in Union-wide social and labour market policies in order to achieve increased social cohesion. Alternatively, if the new poorer member states indeed view the social *acquis* as a cynical attempt by richer member states to insulate themselves against competition, lobbying to loosen the current regulations may be an alternative option.

Accession to the Monetary Union and the Maastricht Criteria

European integration surpasses current attempts at regional integration in other continents through the process of monetary integration. Integration of the candidate countries will not end with their accession to the EU, but will proceed on to monetary integration. Countries should thus pursue Euro membership, under the *acquis* they must treat their exchange rate policy as a matter of common interest and adhere to the *aims* of EMU; eventually adopting the Euro - i.e. no more opt-outs will be allowed. Although this may impose some further institutional constraints, joining the EMU may not be immediate. Formally, it will require the countries to first enter the single market area (based on the Copenhagen criteria), after this candidate countries may apply for ERMII membership. Final membership in the EMU will then require compliance with Maastricht convergence criteria as well as exchange rate fluctuations which do not exceed the normal bandwidth of ERMII (15%) for a period of two years (see Boone, Maurel and Babetski, 2002).

While candidate countries can prolong application for membership in the ERMII some time and bandwidths are relatively broad, so that major repercussions on the labour market may not be expected, compliance with the Maastricht criteria may be important because the strict criteria on budget spending, inflation and public debt as well as interest rates imply a certain macro-economic policy that may have adverse labour market effects in the candidate countries, in particular when these goals are implemented rapidly. In this context Boone, Maurel and Babetski (2002) find that none of the candidate countries can fully comply with these criteria. Furthermore, the monetary *acquis* requires a minimum amount of central bank independence, complete liberalisation of the capital flows, and it limits the role of government financing through central banks (see Temprano-Arroyo and Feldman, 1999).

The economic rationale of applying the Maastricht convergence criteria to the candidate countries may, however, be questioned. The reason for this is that the high level of inflation in these countries reflects the transition process. As long as growth in these countries is expected to be higher than in member states, keeping inflation low at the same time as fixing nominal exchange rates is not a feasible option (see Gros, 2000). An alternative criterion – with better economic

foundations – for assessing the capability may be provided by the contention of the optimal currency area theory (see Mundell, 1961) according to which countries sharing similar (symmetric) shocks are better candidates for a monetary union than countries which have highly dissimilar (asymmetric) shocks. The reason is that after joining a monetary union countries will lose the option to adjust to asymmetric shocks through exchange rate mechanisms and thus in the absence of price (and wage) flexibility, as well as lacking mobility, the likelihood increases that such shocks will have to be borne by the labour market. [7]

Empirical evidence, however, suggests substantial asymmetries of shocks between the European Union and candidate countries. Although Boone, Maurel and Babetski (2002) find some evidence of convergence of shocks, Horvath (2002), using the methods applied by Bayoumi and Eichengreen (1992), finds substantial asymmetries between candidate countries and EU member states. This suggests that the candidate countries do not form an optimum currency area as defined by the optimum currency area theory.[8]

Impact of EU Regional and Agricultural Policies on Labour Markets

The system of regional redistribution practised in the European Union encompasses both the structural and the cohesion funds. Furthermore, the CAP has important implications for the regional distribution of funds. With accession, the candidate countries will become eligible for additional finances for regional policy in the framework of structural funds. In its pre-accession strategy, the European Commission earmarked € 45 billion to be paid to newly acceding members until 2006, while a recent Dutch study (IBO, 2000) suggests that funds may exceed this limit if candidate countries join early and are awarded more than the current 4% limit of GDP. This additional expenditure is high for the candidate countries. For agricultural policy, the commission foresees that the candidate countries will not become CAP members immediately after their accession, but will be "phased into" direct payments (see Belke and Hebler, 2002, and EC 2002).

Recent empirical research on the impact of regional funds on existing member states suggests that the likely effect depends heavily on their judicial use. A number of studies (e.g. European Integration Consortium, 2001; EPRC, 2002) find that regional funds have been most effective in improving backwardness when used to finance investments in education and more encompassing regional development strategies, while for some countries the impact of regional funds seems to

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[7] Related to OCA approaches a number of pertinent questions aris which are beyond the scope of this survey in particular the issues are wheather the EU 15 itself is an OCA and if yes, to what extent is that *because* of integration? If no, how important is this and how will the consequences be exacerbated by enlargement? To what extent will the integration process itself promote greater symmetry? (see Maurel and Batesky, 2002 for a detailed treatment.

[8] A wide number of results, however, also suggests that current EMU member states may not be an optimum currency area either.

have been more disappointing (see Tondl, 2001). Thus if regional funds are well used they could represent a substantial change for regional development and labour markets.

There are, however, a number of doubts concerning the effective use of regional funds given the current institutional setup of regional policy in the candidate countries. In general, current national funds for regional policy are low; as is experience with administering such large amounts for regional policy (see Huber and Palme, 2001). Furthermore, Szemler (2000) criticises the current regional policy in candidate countries for a) not having developed strategic objectives and corresponding policy tools as usual in the current member states, and b) not having developed institutional infrastructures to cope with the influx of funds. Doubts have also been raised because:

- the regional units in many of the candidate countries are relatively new (Poland, Hungary, Slovakia and the Czech Republic have undergone substantial changes in their regionalisation) and the associated regional administrations may thus be relatively inexperienced (see Szalavets, 2001);

- given that candidate countries may join the European Union by 2004 this will mean that funds will have to be spent relatively quickly, which in turn calls for speed in programming the expenditures. Given the experience with other EU countries – which do not like to leave funds unused – this may lead to a situation where substantial financial resources are chasing few high-quality regional development programmes (Huber and Palme, 2001).

In consequence, although access to regional funds holds a potential for major development impulses for the candidate countries, their judicial use should be prepared in advance of accession and technical assistance has to be provided to candidate countries to prepare for the use of funds.[9] This is clearly mentioned by the European Commission (see EC, 2001).

Regional policy, however, may in itself be the subject of reform in the next programming period as a consequence of enlargement. As noted by the Commission (2001), accession poses challenges to European regional policy that stem from increased regional disparities and thus higher demands on regional funds on the one side and limited financial resources on the other. The report discusses a number of options for future regional policy. In particular it suggests that changing thresholds for eligibility for funds, indirect zoning of funds other than objective ones, increasing additional requirements, fading-in of new accession candidates countries and increasing the contribution by other community policies to the goal of social and economic cohesion are options that have to be discussed for the next programming period (see EC, 2001).

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[9] In its regular reports on progress towards accession for the candidate countries, the European Commission repeatedly states that in many countries little progress has been made concerning regional policies and structural funds or that administrative capacities and implementation have to be improved.

Trade

In the decade of 1988 to 1998, European Union trade with the CEE countries has increased by a factor of 6.5, from 1993 to 1998 the increase still amounted to 158%. This raises the issue of whether further trade increases can be expected after accession. A large bulk of literature has attempted to estimate the potential trade volumes that could be achieved by integration of the candidate countries. By and large this literature (see Baldwin,1994; Brenton and Di Mauro, 1998; Brenton and Gros, 1997) concludes that further increases will not be large, since most of the trade liberalisation has already been achieved by the Europe agreements. More recently, however, Schumacher and Trübswetter (2000), arguing that the use of current exchange rates as a determinant of potential trade reduces the predicative power of existing models and that using GDP at PPP is a better choice, find that a further increase of 60% to 70% could be expected. Expectations concerning the future potential of trade in an enlarged Union are thus divergent (see also Breuss and Egger, 2000) . Studies, however, agree that export growth should continue, at least to the degree that accession will increase GDP growth.

One reason to believe that intra-EU trade will increase despite tariff convergence is that enlargement of the EU will abolish a number of non-tariff trade barriers which still exist with candidate countries. Daly and Kuwahara (1999) find that non-tariff trade barriers are still of some relevance in EU candidate countries' trade relationships while Daly and Kuwahara, Vanags find "on balance external tariffs are lower in Latvia than in the EU".. Brenton *et al.* (2000) look at the importance of technical barriers to trade in the European Union for CEE exports to the EU. They find that in the more advanced candidate countries (Hungary, Slovakia, Slovenia, Czech Republic and Poland) in general less than 20% of trade occurs in products which are not subjected to technical trade barriers. In the less advanced candidate countries this share may be greater than 35%. Furthermore, Brenton *et al.* (2000) find that candidate countries have revealed comparative advantages primarily in products which fall under "new approach" regulations (i.e. general guidelines only) concerning technical barriers to trade. This suggests that imports of these products from the candidate countries to the EU should rise after integration. Finally, Fink (2000) documents that in the past candidate countries have reacted to balance of payments problems by increasing non-tariff trade barriers, technical barriers to trade and labelling requirements in an attempt to shelter markets. This has tended to make the relevance of these barriers to trade greater rather than smaller in the last decade.

Furthermore, for goods not covered by the Europe agreements changes are undisputed. This applies in particular to trade with agricultural products and cross-border provision of services (see Mayerhofer and Palme, 2001). This is also confirmed by estimates from gravity models by Fidrmuc, Huber and Michalek (2001) who find that trade with EU partners in food and agricultural products may increase by up to 5% annually in the decade after accession.

Intra-EU trade, however, is only one aspect of the trade effects of European integration. Accession to the Union will also imply application of the external tariffs of the EU. In this context Daly and Kuwahara (1999) find that external tariffs in Hungary exceed EU external tariff in almost all products, but that the size of the differences closely follows protection within the EU. Based on a gravity model, Fidrmuc, Huber and Michalek (2001) find that trade of Poland with other transition economies in 1996 exceeded the level that could be expected from EU member states with similar characteristics. This suggests that with integration some trade may be diverted from intra-candidate country trade to EU trade or trade with the rest of the world. Trade with "the rest of the world" by contrast is still below the level of that of similar EU countries, suggesting an increase in the future.

The projected increases in trade are small, however, in comparison to the potential structural effects. For a number of more narrowly defined commodities, in particular, agricultural commodities, import growth or decline could exceed the 10% threshold (see Fidrmuc, Huber and Michalek, 2001). Integration-induced intra-EU trade will thus mainly reinforce the necessity for internal restructuring already present in the candidate countries. In particular industries that have so far been sheltered from international competition will find themselves exposed to additional competition and may experience some structural problems. This in turn may have an impact on the labour market. Aarle and Skuratowicz (2000) find that increasing exports to the EU had a positive effect on employment in candidate countries, while higher imports reduced employment and increased the likelihood of unemployment. Furthermore according to Aarle and Skuratiwicz (2000), higher import growth has a negative impact on investment and export growth induces additional investments.

Foreign Direct Investments

There are also several theoretical arguments to suggest that the volume of FDI to candidate countries may rise with accession. In particular, by providing a more stable and reliable institutional as well as macro-economic environment, accession will reduce risk premiums in the candidate countries, improve accessibility to international capital markets and foster the investment climate. In consequence, most studies forecasting the effects of European integration on economic growth in the European Union argue that effects from foreign direct investments in the candidate countries will be an important (if not the most important) source of growth for these countries (see Baldwin, Fracois and Portes 1997; Keuschnigg and Kohler; 1998, Breuss, 2001). This assumption is also supported by some empirical work on the accession of both Portugal and Spain to the European Union (see Martin and Velazquez, 1997), and a number of authors (Dostal, 1999, for the Czech Republic; and Fazekas, 2000, for Hungary) have found a positive impact of foreign direct investments on regional development and on the regional labour market situation in candidate countries.

Estimates of gravity models of FDI (Brenton, Di Mauro and Lücke, 1999; and Emerson and Gros, 1998) by contrast suggest that the volume of FDI flows into candidate countries have already

reached the level that can be expected from their current GDP levels. Di Mauro (2000) analyses FDI behaviour by means of a gravity equation and finds that non-tariff trade barriers have a significant negative effect on bilateral FDI, while tariffs have no significant impact. This suggests that the reduction in non-tariff trade barriers may also give an impetus to foreign direct investments in the candidate countries. Furthermore, Di Mauro (2000) shows that, in aggregate, trade and FDI are complements rather than substitutes. This implies that as trade with candidate countries increases so should FDI.

Migration

Furthermore European Integration incorporates elements of labour market integration. One of the four freedoms guaranteed in the *acquis* is the freedom of movement of labour. This will have effects on receiving (member) countries as well as sending candidate countries. Estimates of the "migration potential" (see, e.g., European Integration Consortium, 2001), while burdened with methodological problems (see Alecke *et al.*, 2001; and Fertig and Schmidt, 2000), suggest that a realistic scenario for emigration from the candidate countries may be 0.7% of the EU population in the long run. Also there is substantial evidence that migration flows have a distinctly structural component. In general, the formal educational attainment of migrants from the CEECs is higher than that of previous migrants to most European Union countries, and candidate countries' migrants tend to cluster in particular regions of the receiving countries.

While the literature on the effects of this migration on the receiving countries has been burgeoning in the last decade (see Borjas, 1999, for a survey), few to no studies have looked at the consequences of migration on the sending countries. Focusing on this issue is of some importance, since there is a clear regional and educational dimension to migration processes in the candidate countries. Thus, Kaczmarczyk and Okolski (2002) show that emigrants from Poland to a large degree come from Silesia and that the educational attainment of such migrants has been falling over the last decade. Although the overall migration potential in the candidate countries thus may not be large, isolated regional and/or sectoral problems may arise in these countries as well.

There are, however, other important ways in which migration could be affected through accession to the European Union. On the one hand, accession could raise the incentives for third-country citizen to migrate to the candidate countries, either for reasons of transit migration to other EU member states or for reasons associated with the higher standard of living in EU countries.[10] On the other hand, institutional changes may reduce current migration forms such as short-term migration, which accounts for a substantial fraction of third-country migration to the candidate countries (see Wallace and Stola, 2001).

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[10] Most candidate countries are already net immigration countries (see Lubyova 2002).

Conclusions

The central focus of this chapter was to identify sources of changes in the candidate countries which will be triggered by accession to the European Union. We identified three sources through which such "shocks" may occur. First, institutional changes triggered by adopting the social *acquis*, environmental and competition policy as well as – probably at a later stage – accession to EMU, second the impact of the EU's structural policy on the candidate countries, third changes in trade, foreign direct investments and migration. We find that the literature is far from unanimous in assessing the consequences of most of these changes for the economic structure. It is thus probably still too early to give a final assessment on the effects of these changes.

The literature is almost unanimous, however, in that accession of the candidate countries is a win-win situation in terms of macroeconomic outcomes. Macro-economic models in general suggest that the welfare of candidate as well as member states will increase due to accession. This, however, does not automatically imply that all population groups, industries and regions will profit equally from enlargement. Furthermore, while most of the changes will yield positive long-term returns for the candidate countries, and an alternative scenario without integration does not seem to be feasible, in the short run adaptation to the fiercer competitive environment in the European Union may cause some adjustment costs.

Indeed a substantial part of the evidence gathered in this chapter points to an uneven distribution of costs and benefits of enlargement. This applies to potential industrial differentiation, with adjustment costs probably larger in more protected industries and/or monopolies, regional differentiation which may come through industrial specialisation and the vicinity to borders in areas like cross-border service provision and commuting, as well as personal differences with potential changes in income distribution triggered by FDI, trade and migration.

Finally, the literature is also agreed that the benefits of enlargement for candidate countries will not accrue automatically but that policy has an important role to play in determining the speed and extent to which these benefits will materialise. This applies in particular to issues of the use of EU structural funds, but may equally well be assumed for competition policy and other aspects of the *acquis* which will change the institutional setup of economies in candidate countries.

Labour Market Flexibility in Transition Economies

Accession to the European Union will thus confront CEE candidate countries with a series of shocks to both labour demand (FDI, trade), supply (migration) and institutions. Given that the size of these shocks cannot be predicted with precision, interest is focused on the flexibility of labour markets, i.e. the way in which these countries absorb these shocks. Indeed, "flexibility" is one of the central concerns of labour market analysis. Inflexibility of labour markets has been made responsible for the existence of unemployment in the first place, for its continued rise over the last two decades and for the European unemployment problem in general. Yet, labour market "flexibility" is also one of its most elusive concepts of economics.

In a microeconomic context the labour market may be seen as an impersonal mechanism serving the purpose of allocating resources to their most productive use. At any time in a given economy, there are always employers that are reducing employment, while others are increasing their labour force. In the face of such structural change, labour market flexibility refers to the capability of workers to move between jobs, which may be located in different regions or may require different skills. In this view, the inability of workers to adapt to such structural shocks (Lilien, 1982) increases unemployment. In consequence, net flows of workers between labour market states (unemployed, employed or out of the labour force) are central indicators of labour market flexibility (Clark and Summers, 1979). The hypothesis underlying this approach is that proper evaluation of unemployment should also consider measures of affectedness since even countries with very similar unemployment rates could behave very differently in terms of mobility (see Blanchard and Portugal, 1998).

In a macroeconomic sense, the economy as a whole is subject to repeated shocks to aggregate labour demand and supply. The economy thus must be capable of absorbing these shocks by means of either price (wage) or quantity adjustments (in the form of changes in supply or demand). The speed at which such shocks are absorbed is termed flexibility. In principle in the face of an adverse shock to, say, labour demand there are only two ways by which an economy can adjust. Either relative prices for labour fall (real wage flexibility) to equilibrate the labour market or quantities adjust by increasing unemployment, migration to other regions or alternatively by a change in the participation rate (see Pissarides, 1996; and Hall, 1998). In this analysis, the focus shifts to the statistical analysis of dynamic systems to identify the reaction of specific labour market variables to specific shocks to the environment. In this chapter we focus on the micro- and macro-economic literature concerning labour market flexibility. In particular we review the literature on gross job and worker flows, labour supply and demand and studies of wage determination as well as the limited evidence on macro-economic wage adjustment mechanisms and migration.

Job and Worker Flows

A wide range of studies looks at the process through which jobs are created and destroyed on the firm level in western Europe (see Davis and Haltiwanger, 1999, for a recent survey). These studies have delivered a number of "stylised facts" concerning job creation and destruction processes in mature market economies. In particular according to Davis and Haltiwanger (1999):

- The studies show that job creation and destruction processes are substantial. Around 10% of the jobs in an economy are destroyed within a year and approximately the same number is newly created.

- There is substantial intra-industry churning of jobs – even when moving to very detailed industrial categories, firm-level job creation and destruction processes surpass net employment changes by more than 15%.

In addition to these "job flows" there are also worker flows. In restructuring economies, workers have to move between jobs. Again studies which have focused on these flows have found a number of relatively stable facts across most Western European economies, in particular:

- Worker flows exceed job flows substantially. Some studies (see Abowd et al. , 1999) find that for every newly created job three workers are hired and two leave the firm.

- As with job flows there is thus substantial churning in the labour force.

Early theoretical contributions to the optimal speed of transition (OST) literature expected substantial structural change. These models made a number of common assumptions and generated a number of predictions (see Boeri, 2000) concerning micro-economic adjustment. Most models assumed that moving from the growing to the shrinking sector could be achieved only by an intermittent spell of unemployment and that the supply of labour in restructuring economies was fixed. In this setting models predicted that unemployment would rise due to inflow rates into unemployment being higher than in western economies, while outflow rates from unemployment would rise after a short time. Equally it was expected that, due to restructuring, job creation and job destruction should exceed Western European measures.

While unemployment rates as expected increased rapidly (with the notable exception of the Czech Republic and the Russian Federation) and structural change in terms of sectoral composition, ownership structure and firm size (see chapter 4) was substantial, the empirical literature on job and worker flows in candidate countries has found a number of contradictions to the predictions of the original models. In particular these studies tend to find that:

a) Worker flows are relatively low in the transition countries. For instance Boeri and Flinn (1999) find that mobility rates of workers across sectors and occupations in Poland and Hungary are substantially lower than in Italy, which itself is considered a relatively inflexible labour market. Bell (2001) finds that transition rates in Poland have remained low throughout the transition up

to 1998. This is in contrast to theoretical predictions which suggest higher restructuring needs and thus larger flows in the candidate countries than in the European Union.

b)   In general labour market problems in candidate countries seem to be more strongly associated with a low probability of escape from unemployment rather than high flows into unemployment. For example Storm and Terrel (2000) find that transition probabilities from unemployment to employment and those from out of the labour force to employment are much lower in the candidate countries than in the US. They range between 20% to 60% of total flows in candidate countries rather than 70% in the US. Again this is in direct contradiction to the original hypothesis of high inflow rates to unemployment and (at least soon after the start of transition) equally high outflow rates.

c)   Flows into inactivity have represented a substantial part of the adjustment mechanism of labour markets. This is again supported by evidence in Storm and Terrel (2000) who show that in all candidate countries (except the Czech and Slovak Republics) the share of flows from employment to the out-of-labour force exceeds that in the US, and by Boeri (2001) who reports flows from employment to inactivity that were twice as large as those from employment to unemployment in Poland in 1992/1993. This finding puts to question whether the assumptions in the original models can be upheld, since the possibility of moving into inactivity was completely neglected in the original models.

d)   A substantial part of labour market flows occurred directly from state-sector to private-sector employment without an intermittent spell of unemployment. Boeri (2001), for instance, once more suggests that large direct shifts from state- to private-sector employment occurred without intervening unemployment spells. Again this calls to question the assumption of the original models which ruled out direct transitions from the state to the private sector.

e)   High rates of simultaneous job creation and job destruction were a short-lived phenomenon in candidate countries. While early work on job creation and destruction (see Konings et al., 1996; Konings and Bilsen, 1997) supports the hypothesis of restructuring, since job creation was much more concentrated on growing sectors and much of the job creation centred on small and private firms,[11]   more recent evidence suggests that many of these particularities have disappeared in the more advanced candidate countries. In particular Faggio and Konings (2001) report job creation and destruction rates for both Poland and Slovenia for the period between 1994 and 1997 which are comparable to Belgium, the Netherlands and Germany. In

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[11] Bilsen and Konings (1997) find that de novo firms have been the most important in job creation in Hungary in the period between 1991 and 1993. For Estonia, Haltiwanger and Vodopivec (1999) report job destruction rates of around 12.9% of the employed but job creation rates of only 9.7% for the period of 1992–94. The estimates of job destruction presented in the papers by Konings et al. and Bilsen and Konings (1997) range from 18% in Poland to 9.1% in Hungary. Comparing these figures to those of member states of the European Union (see Davis and Haltiwanger, 1999) suggests that job creation is somewhat lower.

a similar vein, Haltiwanger and Vodopivec (1999) find that in Estonia job creation and destruction, starting from low levels, surged in the early phases but reached levels comparable to those of most western countries by 1994. This again is somewhat in contradiction to the early expectations, which suggested that job creation would continue for a longer period of time.

Table 9: Studies of job and worker flows in transition

Authors	Countries	Data	Findings
Terrel and Storm (2000)	Czech R.	LFS 1994–98	- Transition was accompanied by substantial job-to-job moves and low flows from in and out of employment
Storm and Terrel (1997)	Czech R.	LFS 1994–95	- The probability of staying unemployed for a year is 0.95 which is only slightly lower than staying out of the labour force for one year
Jurajda and Terrel (2000)	Czech R.	Household Survey	- Over 70% of all worker flows are job-to-job – Exits from the old sector are primarily to the new sector (43%). New sector exits go primarily to the new sector (31%)
Jurajda and Terrel (2002)	Estonia Czech Republic	Retrospective question in LFS	- Job reallocation occurs from "old" state enterprises to small new firms
Faggio and Konings (2001)	Poland Estonia Slovenia Bulgaria Romania	Company accounts (Amadeus) 1993–97	- Gross job flows are 8% in Poland ,13–18% in Estonia, 8–10% in Slovenia, 6–11% in Bulgaria, 10–14% in Romania
Bilsen and Konings (1997)	Bulgaria Hungary Romania	Company accounts (Amadeus) 1993–94	- Job reallocation is highest in Bulgaria (8–14%) and lowest in Romania (7–10%) - De novo firms account for most of the job creation and little of job destruction. The opposite is true for privatised firms
Newell and Pastore (2000)	Poland	LFS 1995	- Regions with high inflow rates to unemployment are also high unemployment regions, outflow rates determine less of the unemployment rate
Gora and Lehmann (1994)	Poland	LFS 1993	- Diversified regions also have the highest churning in labour market flows
Haltiwanger and Vodopivec (1999)	Estonia	Retrospective question in 1995 LFS	- Job creation increased from 0.5% in 1989 to 11% in 1993 and 1994, job destruction from 1.5% to around 10% - Private firms account for the majority of job creation, but have substantial job destruction too
Boeri and Flinn (1997)	Poland Hungary Slovak R.	LFS 1992–97	- Mobility across sectors and occupations is lower in all countries than in Italy – Sectoral as well as occupational mobility is highest among candidate countries in Poland and lower in the Slovak Republic and Hungary
Boeri (1995)	Bulgaria Czech R. Hungary Poland Slovak R.	OECD Database 1992-94	- Outflows to employment per unemployed range from 1% in Bulgaria to 5% in Hungary. Only the Czech Republic is an outlier with 15.3%

Source: own research.

A number of authors have also noticed that worker flows in candidate countries are associated with regional disparities. Svenar *et al.* (1994), in analysing unemployment flows in 1992 and 1993 in the Czech Republic and Slovakia, find that outflows from unemployment are explained by labour demand factors, while inflows depend strongly on structural characteristics of regions. Lehmann and Gora (1995) find that in Poland from 1992 to 1994 flows from unemployment to employment

differed significantly in diversified regions, while Newell and Pastore (2000) suggest that high unemployment regions in Poland are also regions with high inflow rates to unemployment, whereas outflow rates are low but relatively evenly distributed across regions.

Labour Supply

Low escape probabilities from unemployment and important flows from in and out of inactivity have led Boeri (2001) to criticise original models of the optimal speed of transition for their neglect of the labour supply decision of individuals. He argues that incorporating the disincentive effects of non-employment benefits (welfare payments, expenditures for active labour market policies, sickness and disability support as well as unemployment benefits) and potential subsistence income could account for the substantial inflexibility of the labour markets in the candidate countries.

Table 10: Studies of the impact of passive labour market policies

Authors	Countries	Findings
Ham *et al.* (1995)	Czech Republic Slovakia	- Elasticity of unemployment duration with respect to unemployment benefits is between 0.41 and 0.56 in the Czech Republic - Elasticity of unemployment duration with respect to entitlement is between 0.30 and 0.45 in the Czech Republic and between 0.18 and 0.39 in Slovakia - Elasticities are comparable to values found in Western Europe (Norway and UK)
Lubyova and van Ours (1997)	Slovakia	- Despite replacement ratios ranging to above 100% for individual groups (low educated and unemployed with young children) no disincentive effects in job finding rates are found for unemployment benefits
Lubyova and van Ours (1999)	Slovakia	- No disincentive effects on unemployment duration is found for unemployment benefits
Micklewright and Nagy (1995)	Hungary	- Unemployed react inelastically to expiry of unemployment benefit
Micklewright and Nagy (1995a)	Hungary	- Probability of employment does not differ between recipients of social welfare and non-receivers
Galasi (1999)	Hungary	- Benefits increase reservation wages but benefit receivers also search more intensively
Nagy (2000)	Hungary	- Expiring unemployment benefits have no effect on the probability to move to employment
Galasi and Nagy (2001)	Hungary	- 20 percentage points decrease in benefit receipts had only a marginal effect in exit to job hazards
Wolf (1997)	Hungary	- Expiry of unemployment benefits has only a small (but significant) impact on the ???
Gora (1995 and 1997)	Poland	- The regulations on unemployment benefits increased the labour supply in Poland
Gora and Lehmann (1995)	Poland	- Lax eligibility rules at the beginning of transition have led to crowding in of unemployed
Puhani (1996)	Poland	- Spell length is increased by higher unemployment payments
Studies based on regional data		
Köllö (2001)	Hungary (selected regions)	- Weak evidence for the size of the black economy to reduce outflow rates. There is, however, great heterogeneity in dynamics even among the analysed regions
Köllö and Vincze (1999)	Hungary Romania	- Higher flows into selfemployment are registered in depressed regions. Flows from selfemployment to employment are not higher in regions with high employment growth

Source: own research.

Empirical evidence concerning the connection between these income components and labour supply is mixed, however. The incentive effects of unemployment benefits are still disputed. Micklewright and Nagy (1995) find that unemployment in Hungary is relatively inelastic to changes in unemployment benefit entitlements. In contrast, Wolf (1997), using the same data set, finds small but significant effects. Thus a less generous unemployment benefit system reduces the hazard rate for exits from unemployment. Galasi (1999), looking at reservation wages and search activities of unemployed, presents evidence that benefits and non-labour income increase the reservation wage of unemployed, but this effect is partly offset by higher search activities of unemployed with higher alternative income.

In 2000, following a further cut of unemployment benefit duration and replacement ratio, Nagy (2000) repeated the two-cohorts survival analysis he had done with Micklewright in 1992–93 (Mickewright and Nagy 1995). Again, he found no effect. The exit to job hazards of the cohorts entering unemployment right before/after the reform were statistically indistinguishable. Furthermore, Galasi and Nagy (2001) looked at the effect of tightening unemployment assistance (lower flat-rate benefit, obligation to participate in public works, mortgaging the real estate of recipients). They followed two cohorts entering right before/after the reform, and found a substantial decrease in benefit payments (by about 20 percentage points) but only marginal improvement in the exit to job hazards. Köllö (2000), estimating the exit to job probabilities of unemployment benefit recipients in a one-month period (March-April 2001), found that time to exhaustion had a significant impact on job finding but the effect was high only with skilled unemployment benefit recipients (those with at least secondary education).

For Poland, Gora and Lehman (1995) as well as Gora (1995 and 1997) argue that the originally very generous entitlements schemes of Polish unemployment benefits attracted substantial flows of persons, which should properly have been considered out-of-labour force. Thus unemployment benefits increased registered unemployment through increasing measured labour demand. Similarly, Puhani (1996) finds that the spell length is significantly increased by higher unemployment benefit entitlements. Finally, Ham Svejnar and Terrel (1995) report that the elasticity of unemployment duration with respect to unemployment benefits is smaller in Slovakia (0.1) and higher in the Czech Republic (0.41–0.56) than in Western European countries. The elasticity of unemployment duration with respect to entitlement is between 0.18 and 0.39 for Slovakia and between 0.30 and 0.40 in the Czech Republic.

Again this evidence is augmented by findings on regional evolutions. Köllö (2001) for instance conducts a detailed study of labour market adjustments in the least developed regions of Hungary, which have experienced the most massive declines in participation rates. He finds that exit to job probabilities have not been strongly affected by benefit receipt, although he cannot preclude the possibility of more complex interactions through minimum wages. However, he finds weak evidence of the size of the black economy having reduced outflow to jobs and of access to high quality land increasing reservation wages. In general, however, even within regions with high non-

employment rates, exit to job rates vary substantially, from very high to extremely low in comparison to other Hungarian regions. Köllö and Vincze (1999) finally analyse the interaction between self-employment and unemployment in Hungary and Romania. Their findings suggest that higher flows into self-employment are registered in depressed regions, but that flows from self-employment to employment were not higher in regions with high employment growth.

Table 11: Studies of active labour market policies

Authors	Countries	Measures	Findings
Lubyova and van Ours (1999)	Slovakia	SPJ PUJ Training	Workers with better characteristics have a higher chance to enter ALMP measures Treatment effect is negative if selectivity is not accounted for, but positive when this is taken into account Exit rate to employment after ALMP measure increases by 150% Mainly PUJ and training has a positive effect, SPJ have a negative effect on the job finding rate
Van Ours (2000)	Slovakia	SPJ PUJ Training	Workers on temporary subsidised jobs have a higher job finding rate than comparable other workers and retain the new-found jobs for a longer time period Long term subsidised jobs have a negative effect on the job finding probability Training has a positive effect on job finding rate
Lechner (1999)	East Germany	Vocational training programmes	No positive effects of training can be found in the first years after training
Eichler and Lechner (2000)	East Germany	On the job training employment programmes Off the job training programmes	There are some positive effects of job training and employment programmes but no effects of Off the job training
Kraus et al (1999)	East Germany	On the job and off the job training	Positive effects of both on the job and off the job training for women, and positive effects of off the job training for men.
Kluve et al (2001)	Poland	Training intervention works	Training enhances individual employment prospects Intervention works participants fare worse than their comparison group
Puhani (1998)	Poland	Training intervention works public works	Training improves the employment opportunities of both men and women, intervention and public works do not: intervention works prolong unemployment for both genders as do public works for men
Puhani and Steiner (1997)	Poland	Public work schemes	Public work schemes lead to a reduction in job finding probabilities
Mickewright and Nagy (1995)	Hungary	Training course participation	There is considerable evidence of "creaming" in selection
O' Leary (1997)	Hungary Poland		Strong evidence of non-random assignment to groups Despite this, ALMP measures have positive effect on employment
Studies based on regional data			
Terrel and Munich (1995)	Czech Republic	ALMP in total	Regional outflow rates are increased by ALMP measures. The elasticity of outflow rates with respect to ALMP Spending is 0.18

Source: own research.

Social benefits are a further potential influence on the search incentives of the unemployed. For instance, Micklewright and Nagy (1999) note that in Hungary long-term unemployment is so prevalent that exhaustion of unemployment benefits is the single most likely way to leave the unemployment insurance system. On average the social benefits replace two thirds to three

quarters of the unemployment payments. Despite this substantial decrease in benefits, no increase is found by Micklewright and Nagy (1999) in the escape probability from unemployment after unemployment benefits expire. Furthermore, Micklewright and Nagy (1995b) find no difference in employment probability between social welfare recipients and persons who do not receive social welfare in Hungary.

Similarly to the literature on the effects of other non-employment benefits on the search incentives of unemployed, evaluations of active labour market policies in candidate and transition economies yield mixed and often discouraging results. For instance, Boeri (1997), in surveying the early literature on labour market policy, concludes that the major lessons from this literature are that "First it is not wise to reduce the duration of unemployment benefits when the length of unemployment spells is on the rise… [second] … that it is possible to transform institutions and create an efficient policy delivery mechanism within a short time span." The most unanimous finding in many of these contributions (see Table 11) is that substantial "creaming" occurred on the part of labour market administrations. In general ALMP measures address the better qualified among the unemployed in candidate countries. Other than this the available evidence seems to slightly favour training programmes and in particular integration measures on short-term subsidised jobs as more effective ALMP measures. Long-term subsidised jobs by contrast tend to be less successful (see Table 11).

Labour Demand

A further assumption made in much of the original OST Literature was that existing state owned firms could not restructure. It was thus expected from these models that firms in the 'old sector' may not react to market incentives in a way similar to that in most mature market economies. The socialist firm differed in many ways from firms in developed market economies. In particular, they did not face the risk of bankruptcy even if losses were high (see: Svejnar, 1999) and were also providing many social services, substituting for the role played by state agencies in market economies. A substantial literature has developed on candidate countries, which is concerned with the reaction of firms employment and wages to changes in output (see: Svejnar (1999) for a recent survey).

The general findings of this literature (see: Körösi, 1997, Estrin and Svenar, 1998, Commander and Dhar, 1998) are that a) while the elasticity of employment with respect to sales was either insignificant or low before the transition period it increased during transition b) the elasticity of employment with respect to the own wages of the firms has increased in the transition period, c) wages became more responsive to sales in the candidate countries. For instance Basu et al (1995) in a comparative study of the Czech Republic, Slovakia, Hungary and Poland find that the elasticity with respect to sales before transition ranged from 0.4 (Hungary) to 0.0 (Czech Republic) while during the transition period it rose in all countries and ranged between 0,4 (Poland) and 0.7 (Hungary). The own wage elasticity was between –0.4 (Czech Republic) and –0.2 (Hungary) and

decreased in all countries but Slovakia to values between −0.6 (Czech Republic) and −1.0 (Hungary) while the elasticity of firms wages with respect to sales moved from virtually zero in all countries to values between 0.004 to 0.3. Köllö (1997) found that the elasticity of employment with .respect to. sales increased quite substantially in the early years of transition (0.35 in 1989-92 versus 0.19 in 1986-89). Köllö (2001) recently estimated demand models for large firms using capital and heterogeneous labour (optimal share equations derived from the translog cost function for four factors of production) and found own-wage elasticity of between -0.5 and -1.0 for skilled and -1.5 for unskilled labour in 1996-99.

Table 12: Studies on Firm Behaviour in Transition

Authors	Countries	Elasticity Before Transition	Elasticity after Transition
Elasticity of Labour demand with respect to output			
Basu et al (1995)	Poland Hungary Czech R. Slovak R.	0.3 0.4 to 0.6 0.0 0.1	0.4 0.7 to 0.8 0.5 to 0.6 0.3
Basu et al (1997)	Poland		0.2
Grosfeld ad Nivet (1997)	Poland	0.06	0.25
Köllö (1997)	Hungary	0.2	0.2
Körösi (1997)	Hungary	0.5 to 0.6	0.5 to 0.8
Singer (1996)	Czech R		0.0 to 0.1
Elasticity of Labour demand with respect to wages			
Basu et al (1995)	Poland Hungary Czech R. Slovak R.	- 0.3 - 0.2 - 0.4 - 0.3	-0.8 - 1.0 to - 2.3 - 0.6 to – 1.0 - 0.3
Basu et al (1997)	Poland		- 0.3
Grosfeld ad Nivet (1997)	Poland	- 0.03	- 0.13
Köllö (1997)	Hungary	- 0.6	- 0.3
Körösi (1997)	Hungary	-0.1 to -0.8	-0.4 to –1.4
Singer (1996)	Czech R		-0.0 to –0.1
Elasticity of Labour demand with respect to sales			
Basu et al (1995)	Poland Hungary Czech R. Slovak R.	0.3 0.0 0.0 0.2	0.3 to 0.4 0.3 to 0.4 0.3 to 0.4 0.3 to 0.4
Basu et al (1997)	Poland		0.3

Source: Svenar (1999)

Thus the evidence suggests that firm behaviour quickly adopted to the new situation after transition. In reviewing the literature and comparing the results to studies on mature market economies Svenar (1999) concludes that "firms in all CEE economies started adjusting employment to output changes and the estimated elasticities rapidly rose to levels that are by and large comparable to those estimated in western economies".

This finding may be calibrated farther, taking into account that certain types of firms react differently to market conditions. Since restructuring incentives may be influenced by both the

market situation of firms and ownership, a number of researchers have differentiated either between firms with growing or falling sales (Köllö, 1997, Estrin and Svejnar (1998) or firms of different ownership types (Basu et al, 1997, Grosfed and Nivet, 1997). The results of this research seem to suggest that:

Both firms with increasing as well as decreasing sales started to adjust employment during transition, but firms with falling sales started adjustment already before transition. For instance Estrin and Svenar (1998) in a comparative study of Poland, Hungary, the Czech Republic and Slovakia find that in all countries but Hungary labour demand elasticities of firms with falling and rising sales were comparable during transition, but that estimated elasticities were substantially lower for firms with rising sales before transition (see: also Svejnar, 1999).

The studies discussed above provide evidence that ownership type and legal form have ambiguous effects on labour demand elasticities. Basu et al (1995) report that there is no systematic effect of ownership variables on employment. Basu et al (1997) suggests that private firms employ fewer workers ceteris paribus. In contrast, Grosfeld and Nivet (1997) find that privatised firms increase employment more than state owned and non-commercialised firms.

Ambiguous evidence related to ownership cross section may be caused by the fact that all the above studies are based on data from the early transition period. Employment changes were net effects of two different adjustment processes, in operation at the same time: (i) policy to shed labour to eliminate initial labour hoarding, (ii) increased demand for labour following possible increase in sales accompanied by increased labour productivity. Indeed, more recent results suggest that in the later stage of transition the difference between ownership sectors may be more pronounced. In particular, Konings et al. (2002) using an extensive data set of 9,500 companies in both manufacturing and services find that for period 1997-2000 in Ukraine, new private firms strongly outperform all other categories in terms of employment creation.

Real Wage Adjustments

A further criticism voiced concerning the OST literature is that it downplayed the role of individual wage flexibility as an adjustment process in accession candidate countries (see Boeri and Terrel, 2002). Transition in the candidate countries, however, has been associated with a remarkable differentiation of individual incomes. Newell (2001) for Poland, Kertesi and Köllö (2000) for Hungary and Romania as well as Abraham and Kezdi (2000) for Hungary and UNICEF (1999) for the Czech Republic, Hungary, Poland, Romania and Slovenia have found that both wage and income inequality have increased during the transition period.[12] In a comparative study of the

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[12] This finding has, however, not gone undisputed. Keane and Prasad (2002) find that while wage inequality increased throughout 1990–1997, income inequality increased much less dramatically, due to well designed transfer policies.

earnings distribution for Poland, the Czech Republic, Hungary, Slovakia, Slovenia, Bulgaria, Romania and Croatia, Rutkowski (1996) finds that:

- "In all cases, except Slovenia the earnings distribution has become more flat topped indicating that workers are less centred around the mode,

- In the majority of cases the proportion of workers falling into the range of low wages has increased,

- In all cases the distribution has become markedly more stretched out to the right, indicating the emergence and increased incidence of (relatively) high wages."

Table 13: Studies of individual wages in candidate countries

Authors	Countries	Time period	Results
Chase (1994)	Czech R Slovak R.	1984 and 1993	Return to one year of education increased for males from around 0.02 to 0.05 and females from 0.04 to 0.05
Rutkowski (1996)	Poland	1984 and 1992	Return to education increased from 0.05 to 0.07 or 0.08
Krueger and Pischke (1992)	East Germany	1988 and 1991	Return to education decreased in early German transition from 0.077 to 0.062
Bird et al.(1994)	East Germany	1989 to 1991	Return to education remained almost constant in early transition
Munich et al. (2000)	Czech R.	1989 and 1996	Transition brought increasing returns to education, by 1996 returns were comparable to Western Europe Wage experience profiles did not change Inter-industry wage structure remained stable
Newell (2001)	Poland	1992 and 1997	Aggregate wage inequality did not increase in Poland
Puhanyi and Steiner (1996)	East Germany	1990 and 1994	Returns to experience for men were reduced to zero in transition, for women it did not change Returns to education for men increased slightly Firm size wage effects became more important
Hunt (2002)	East Germany	1990 and 1994	Male/female wage differential declined by 10 percentage points
Kertesi and Köllö (1999)	Hungary	1986–1996	Returns to education increased until 1992 and then declined until 1995 Wages rose faster for younger workers
Orazem and Vodopivec (2000)	Slovenia Estonia		Male/female wage differentials declined in transition in both countries
Kertesi and Köllö (2001)	Hungary	1986 to 1999	Returns to education increased until 1992 and then declined until 1995 Wages rose faster for younger workers
Kroncke and Smith (1999)	Estonia	1990–1995	Wage differentails between native Russians and Estonians cannot be explained by differences in characteristics

Source: Svejnar (1999), own research.

The increase in income inequality according to Rutkowski is thus due to a combination of increased incidence of both low and high incomes at the expense of a reduction of middle income earners. In part the increase in income inequality has been caused by reduced employment, higher unemployment and reduced participation in particular through early retirement (see Newell, 2001, and Milanovic, 2001). Furthermore, as pointed out by Milanovic (1999), the increase in inequality

seems to be closely associated with the process of privatisation as leavers from the middle income groups in the state sector either ended in high wage earning jobs or low income unemployment. This is also supported by microeconomic evidence. Köllö and Nagy (1996) find that in particular older industrial workers, who spent their life working in state-owned enterprises and fell into unemployment, may lose 18 to 25% when re-employed, while younger workers with the same labour market history, secondary education and little work experience may experience real wage gains of 10 to 15%.

In contrast to increased income inequality, a major driving force for increased wage inequality were higher returns to education. The communist wage grid maintained extremely low rates of return on education (see Munich et al., 2000). After transition, however, the vocational education system in many candidate countries, which generally put too much emphasis on relatively narrow skills (see Boeri, 2001), caused a substantial skill shortage, which in turn led to rapidly rising rates of return on education (see Munich et al., 2000; Kertesi and Köllö, 1999; Abraham and Kezdi, 2000; Puhanyi and Steiner, 1996). Again Rutkowski (1996) finds that wage differentials by educational attainment in all six transition economies analysed increased from very low levels at the beginning of transition to levels close to those observed in developed market economies by 1993. Furthermore, some evidence suggests that the value of experience – pre-transition – declined while wages for young (and educated) workers rose rapidly (see Kertesi and Köllö, 1999; Steiner and Puhanyi, 1998). This may reflect the substantial technological changes in candidate countries which devalued pre-transition labour market experience.

Gender wage differences, by contrast, decreased slightly during the first decade of transition (Orazem and Vodopivec, 2000). Hunt (2002), however, argues that the ten point decline in gender wage differentials in East Germany may not necessarily be good news for German women. According to her analysis, almost half of this decline can be explained by involuntary exit of low-qualified women from employment (mostly to unemployment).

Finally, some evidence collected suggests wage discrimination has emerged, directed against Russian minorities in the Baltics (see Chase, 2000; Kroncke and Smith, 1999) and against gypsies in the CEECs. Kroncke and Smith (1999) for instance, using the 1994 labour force survey, find evidence of wage discrimination against the Russian minority in Estonia. In particular they find that this discrimination applies to Estonian-born ethnic Russians rather than recent migrants, and that Estonian language skills do not diminish wage discrimination.

Transition has, however, also resulted in a substantial wage differentiation among observably similar individuals. For instance, Abraham and Kezdi (2000) conclude that "the most important factors (for increased wage inequality) are not captured by simple demographic variables. Within groups, variation accounted for more than three fourths of total variation by 1996". In part this may be explained by increasing returns to certain employer characteristics. Steiner and Puhanyi (1998) for instance present evidence that firm size wage effects have increased in East Germany,

and Newell (2000) as well as Milanovic (2001) present some evidence to support increased inter-industry wage differentials.

Individual level wages have thus been highly flexible in the candidate countries. Emerging disparities on the one hand reflect relative scarcities of factors and individual differences in productivity. Furthermore, some evidence suggests that this differentiation of wages is closely associated with progress in transition. Sibley and Walsh (2002) for instance find that wage inequality is higher in regions which have progressed further in transition.

Most studies that have attempted to empirically analyse wage determination in regional labour markets focus on the elasticity of regional wages with respect to some measure of regional labour demand such as the unemployment rate. Within this framework there are two competing approaches. One class of papers follows the wage curve approach (see Blanchflower and Oswald, 1994) where the cross-sectional variance in variables is used to assess the impact of wages, and second models use the longitudinal variance in data (i.e. the notion of Phillips Curves) (see Baddeley et al., 2000).

Most of the evidence concerning the reaction of wages to regional unemployment rates in candidate countries has been based on the wage curve approach and results have been mixed. Boeri and Scarpetta (1996) find correctly (negatively) signed but insignificant parameters when estimating equations that relate regional wage change to changes or levels of unemployment rates, and Commader and McHale (1995) report ambiguous results for the Visegrad countries. By contrast, Kertesi and Köllö (1995), using smaller regional units, and Kertesi and Köllö (1997), using individual data for Hungary, find a significant negative impact of unemployment levels on regional wages and present evidence that the elasticity has increased in the course of transition. Kallai and Traistaru (2001) report a significant impact of unemployment rates on wages in a wide variety of specifications for Romania, while Duffy and Walsh (2001) find robust elasticities of wage levels with respect to unemployment rates using both Polish regional as well as individual data from 1991 to 1996 of around –0.1.

These ambiguous results of "wage curve" estimates are, however, not in contrast to results for the European Union member states. For instance, Guichard and Laffargue (2000) find substantial heterogeneity in wage curve estimates across 15 EU States and the US and conclude that this variance cannot easily be explained by differences in institutions or development between the countries. Similarly, Abraham (1996), regressing wage growth equations on regional and national unemployment rates, finds that regional unemployment rates have a significant influence on regional wage growth only in high unemployment regions, and Winter-Ebmer (1996), in a recent literature survey, finds that wage curve estimates have not been very robust.

Table 14: Studies on regional response of wages to unemployment rates

	Countries	Dependent variable	Elasticity with respect to unemployment rate
Kallai and Traistaru (1999)	Romania	Wage level	0.13 to –0.25
Duffy and Walsh (2001)	Poland	Wage level	0.16 to –0.11
Huber (2002)	Czech R Slovak R. Poland Hungary	Wage change	Elasticity with respect to unemployment rates is slightly higher in candidate countries than in the EU, the elasticity with respect to national unemployment rates is lower in candidate countries
Kertesi and Köllö (1997)	Hungary	Wage levels	Unemployment rate has significant negative impact on wage level
Kertesi and Köllö (1995)	Hungary	Wage levels (ind. data)	Unemployment rate has significant negative impact on wage level
Boeri and Scarpetta (1996)	Czech R. Hungary Poland Slovak R.	Wage change	Coefficients of change in unemployment are insignificant
Commander and Hale (1995)	Vysegrad Countries	Wage level	There is substantial heterogeniety among countries, results are ambiguous

Source: Burda, Boeri, Köllö (1998), own research.

In part these non-robust results may be due to the conceptual differences between "wage curve" and "Phillips curve". The first is usually interpreted as an equilibrium concept, the second as an adjustment process. As recently pointed out by Card (1995), a specification that nests both the wage curve as well as Phillips curve approaches would be:

$$(1) \qquad \Delta w_{ij,t} = \eta_{j,t} + \phi_1 u_{ij,t} + \phi_2 u_{ij,t-1} + \varsigma_{ij,t}$$

where w_{ijt} is the wage rate of region i in country j at time t; $\eta_{j,t}$ is a country and time specific fixed effect intended to control for country and time specific shocks such as productivity shocks; and $u_{ij,t}$ is the unemployment rate in region i of country j at time t. If in this specification $\phi_2=0$, a dynamic Phillips curve relationship emerges. In this formulation wage changes depend on the level of unemployment rates. By contrast the wage curve as a long run equilibrium relationship requires $\phi_1 = -\phi_2$ since in this case wage differences are a function of changes in unemployment rates. Using this approach, Büttner (1999) attempts to distinguish between the "Phillips curve" and "wage curve" concept and finds that the relationship between wage growth and unemployment is more closely related to a regional adjustment mechanism than an equilibrium relationship. Keteresi and Köllö (2000), using similar methods, find substantial instability in the parameter estimates of the wage curve estimates in Hungary. In particular the elasticity of the wage rate with respect to unemployment rates increased in the years from 1989 to 1993, reaching levels comparable to Western Europe in 1993, and then increased further until 1996. In Huber (2002), we estimate variants of equation (1) in which we allow wage changes to depend on both national as well as regional unemployment rates for candidate countries as well as member state. Our results suggest that the elasticity with respect to regional unemployment rates is slightly higher in candidate countries than in the EU, the elasticity with respect to national unemployment rates is lower.

Recently, some authors have used time series methods to identify the connection between wages, unemployment and prices. This evidence too seems to suggest some wage flexibility in the candidate countries. For instance, Welfe *et al.* (2002) find that in Poland the price elasticity of wages is unity – as predicted by standard economic theory –, while Golinelli and Orsi (1998) find a stable long-term relationship between prices and wages in both Hungary and Poland.

Damijan and Kostevc (2002a) investigate the impact of economic integration with the European Union on regional relative wages and find that there is a tendency of income polarisation in Estonia and Romania while declining regional relative wages are found in Bulgaria and Hungary. In Slovenia both catching up and polarisation tendencies are found.

Migration

Economic theory (Todaro, 1969) predicts that migration is related to the expected income differential, i.e. the wage differential adjusted for the probability of finding employment, between the regions of origin and destination. Labour mobility is thus an important channel for mitigating the effects of region-specific asymmetric shocks. Unemployed workers migrate from regions hit by adverse shocks to regions with more favourable conditions. Similarly, high wages attract inflows of workers from regions with lower wages. This pattern of adjustment helps equilibrate the effects of asymmetric shocks. In a hypothetical economy with perfect factor mobility, regions would adjust to asymmetric shocks immediately. When labour mobility is low and prices and wages rigid, the effects of asymmetric shocks persist and regional economies have to rely on other mechanisms, such as fiscal transfers, to absorb them.

Lack of labour mobility can have profound economic and political consequences. It is thus often argued that the viability of currency unions, and of EMU in particular, is threatened by low labour mobility within and across member countries (see Eichengreen, 1998). Fidrmuc *et al.* (1999) argue that low labour mobility in former Czechoslovakia contributed to economic tensions that eventually led to the break-up of the country.

Despite this importance and in contrast to most other indicators, migration in transition economies has been little researched. The limited evidence available suggests low regional mobility in most CEE countries. Although Burda and Profit (1996) find indirect evidence of some mobility, by analysing spatial correlation in matching function estimates, Fidrmuc's (2001) analysis of regional migration data for both the candidate countries and member states finds lower mobility in the candidate countries than in the EU. This mismatch has remained high throughout the transition period. This pertains in particular to regional mismatch (see Scarpetta and Boeri, 1996) and can be explained by the high costs of transport, which impinge on the possibility of commuting. Fazekas, Kertesi and Köllő (1993) for instance present evidence that in Hungary an average commuting distance of 15 km will cause costs equivalent to the minimum wage and that transportation costs for distances in excess of 50 kilometres could equal an average salary.

Clearly, this suggests that the extent of commuting as an labour market "adjustment mechanism" is limited.

Table 15: Migration rates, wage and unemployment rate disparities in selected candidate and member states

Country	Year	Average population	Gross migration rate	Net migration rate	Coefficient of variation of unemployment rate	Coefficient of variation of wages
Netherlands	1992	1260.6	1.64	0.19	0.170	0.024
	1995	1308.9	1.62	0.18	0.134	0.023
Italy	1983	2828.8	0.64	0.10	0.295	0.090
	1995	2863.4	0.28	0.16	0.561	0.088
Spain	1983	2003.5	0.66	0.16	0.225	0.152
	1994	2059.0	0.52	0.14	0-222	0.084
Poland	1992	783.0	0.72	0.06	0.292	0.086
	1998	789.1	0.44	0.05	0.342	0.113
Slovenia	1996	165,9	0.14	0.02		0,079
	1998	165,2	0.15	0.02	0.290	0.082
Slovakia	1992		0.43		0.248	0.076
	1995		0.31		0.293	0.117
Czech Republic						
Okresy (76 regions)	1992	137,5	1.08	0.11	0.483	0.078
	1998	137,3	0.87	0.19	0.389	0.097
NUTS II (New Kraje 14)	1992	736,8	0.68	0.12	0.398	0.102
	1998	735,4	0.56	0.14	0.352	0.145
Old Kraje (8)	1992	1.289,4	0.56	0.02	0.402	0.073
	1998	1.286,9	0.47	0.01	0.398	0,146

Source: Regio database (EU data), Regional Statistical yearbooks (Candidate county data), own calculations

In Table 15 we report the percentage of population which changed their region of residence in 1993 in the CEECs and in selected EU member states. We find that in 1993 migration rates were clearly below those of the Netherlands and Spain. Furthermore, internal migration rates have been falling since 1993 in the candidate countries. In both the Czech Republic as well as in Poland internal migration rates were at a level of around 80% in 1998 relative to their 1993 values. This fall in internal mobility contrasts sharply with the increasing regional inequalities in both terms of wages as well as unemployment. In Poland both the dispersion of regional unemployment rates and of wage levels as measured by the coefficient of variation increased over the period from 1992 to 1998 while migration declined. The Czech Republic experienced a reduction in the dispersion of unemployment rates, but wage levels also diverged substantially.

Similarly low and in many cases declining levels of migration have been found by some authors for internal migration in the EU (see Faini *et al.*, 1997 for Italy; Fatas, 2000 for Germany, the UK, Norway and France). Given this finding, it is to be expected that regional mobility is even less of a viable adjustment mechanism for candidate countries than for the existing member states, since migration is low in the member states and still lower in candidate countries. In a recent

comparative paper, Puhanyi (1999) finds that internal migration is highest in Germany, but that even there it may take several years to accommodate to an unemployment shock.

There are, however, a number of arguments other than lack of labour market flexibility which can explain decreasing migration: First, wage disparities could have been countervailed by decreasing unemployment rate disparities. Second, one could argue that spatial matching has become less efficient over time. Third, other income components such as family and government support, black market income or income from subsistence farming may have countervailed wage divergence, and fourth, inefficiencies in housing markets could have led to decreasing migration. Finally, in the context of transition economies it could be argued that in the early years of systemic transformation, wage and unemployment disparities did not fully reflect long-term economic prospects of regions, but were influenced by past experience. For instance, in the early 1990s the heavy industry and mining regions still belonged to high wage regions of the country and suffered unemployment rates only slightly above average, although these regions were generally considered to be the ones with bad economic prospects (see Gorzelak, 1996). To the extent that inhabitants had rational expectations concerning the extent of this upcoming decline, maximising future expected income may have involved moving despite low wage disparities between sending and receiving regions. More generally, one can argue that the early years of transition were associated with substantial uncertainty and restructuring. This in itself may have contributed to inflating migration and can potentially explain the stylised fact of increased bilateral migration.

Some of the research on migration in candidate countries gives support to some of these hypotheses. For instance, Totev (2000) finds that rural to urban migration in Bulgaria reversed in the period from 1989 to 1995. In 1995 more people moved from the towns to the country than in the opposite direction. This suggests that in the unfavourable economic situation of Bulgaria alternative income from subsistence farming may have been important for the determination of migration flows. Mayo and Stein (1995) in a study which focuses on the pretransition period, estimate an equation in which, aside from wages, the housing units per 100 households in 1981 are used to explain internal migration of 1985. They find this variable to be highly correlated with migration rates. Also Kallai and Traisatru (1999) find that housing availability has a strong positive impact on immigration rates in post-reform Romania. In Fidrmuc and Huber (2001), we find that declines in migration rates were primarily due to declines in long-distance migration and declines in bilateral migration. Furthermore, we find that migration has become increasingly responsive to regional wage differentials, while unemployment differences seem to have become less important. This suggests that inefficiencies in housing markets and settlement structures (suburbanisation) have been more important in explaining declining migration than labour market inefficiencies.

Low internal migration in the candidate countries could to some degree be mitigated by higher international migration. In the context of enlargement of the European Union concern has been expressed that enlargement could result in substantial international migration from candidate to current member countries. Lubyova (2002) analyses the international behaviour of a set of

European countries (candidate countries, member states and members of the European Economic Area). She finds that international migration in candidate countries is substantially less responsive to wage differences than international migration in the EU but much more responsive to unemployment rate differentials. Thus international migration in the candidate countries seems to be less efficient in mitigating regional disparities than migration within the EU.

Conclusions

The flexibility of labour markets in candidate countries is of interest in the context of accession to the European Union, since in the absence of precise estimates of the size of shocks, labour market flexibility can be an insurance to adverse asymmetric shocks. One way to learn about the capability of candidate countries' labour markets to absorb asymmetric shocks is to focus on adjustment within these countries. In this chapter the literature on "stylised facts" of labour market dynamics in candidate countries is summarised. The major findings can be summarised as follows:

1. Candidate countries' labour markets have been characterised by a low turnover in and out of unemployment despite substantial structural change. In particular flows out of unemployment have remained small and most of the change in the sector composition of the work force seems to have been accomplished by job to job mobility paired with early retirements and new workers.

2. Migration rates have experienced declines during transition, despite rising regional disparities but evidence concerning differences in the reaction of migration to wage and unemployment rate disparities remains inconclusive.

3. The elasticity of real wage growth in candidate countries with respect to regional unemployment rates is as ambiguous as in the EU and individual wages have shown substantial flexibility. This resulted in increased income inequality.

4. Same as in the EU countries, there is substantial heterogeneity in labour market dynamics among candidate countries.

While these results do not challenge the desirability of enlargement since it will have positive effects on employment and GDP growth in candidate countries and existing member states, they highlight the role of policy in securing these benefits. In particular if accession leads to further industrial restructuring, with some industries profiting and others suffering, this will lead to an increased demand for mobility among workers. The low mobility rates in candidate countries suggest prioritising policies designed to enable the workforce to meet this demand, by education policy, focusing active labour market policies on training, improving the effectiveness of active labour market policy and using structural funds for active (rather than passive) restructuring measures in the regions. Evidence suggests that wage flexibility and institutional barriers to mobility by contrast are comparable to the EU.

On the side of the European Union our findings suggest that the special situation of candidate countries should be taken into account in negotiating accession. In particular care must be taken that accession does not impede on the capability of candidate countries to cope with asymmetric shocks on the labour market as has been recently warned by Burda (1998) in the context of the adoption of the social *acquis* and that access to substantial regional transfers in the framework of the cohesion funds is used mainly to finance investments in low income regions.

Regional Development in the Candidate Countries

Aside from aggregate and individual data analysis summarised in the last section, indications of the effects of integration on candidate countries' labour markets can be found in regional analysis. Moving to this "meso-level" can be interesting for a number of reasons:

1. In a macroeconomic sense the economy as a whole is subject to repeated shocks to aggregate labour demand and supply (see last chapter). Regional analysis can provide valuable insights into the adjustment of integrated labour markets for a number of reasons. First, as recently argued by Obstfeld and Peri (2000), regions in a country are more highly integrated than countries in the European Union, thus extrapolating from regions provides a chance to gauge the effect of integration in a given national institutional framework. Thus the substantial body of research on intra-national labour market adjustment (e.g. Decressin and Fatas, 1995; Fatas, 2000; Büttner, 2000) can be used to assess the effects of integration. Second, one way to overcome the lack of time series data in candidate countries is to use intra-national regional data to analyse labour market adjustment mechanisms.

2. A new body of literature has recently suggested that integration, regional development and shock asymmetry may not be independent of each other. In the so-called "geography and trade" models (see Krugmann, 1991) integration of economies through reducing transport costs changes the distribution of economic activity in a country. This may either lead to situations where regions become increasingly specialised on only a few sectors, or it may increase the regional concentration of economic activity (i.e. all activity becomes more concentrated in a few localities). While the later effect (so-called urbanisation effects) has direct implications on the changes for regional convergence, the first effect (so-called agglomeration effects) may account for business cycles becoming more asymmetric as integration proceeds, this in turn may increase the challenges of enlargement for candidate countries by causing both economic divergence as well as increasingly asymmetric shocks (see Martin, 2001).

Studying the development of candidate countries' regions is thus of major importance in assessing the potential labour market implications of accession, since one can learn about national adjustment mechanisms as well as the potential endogeneity of convergence and business cycles to the integration process. In this chapter we focus on results concerning three aspects of regional development which will be of particular importance in our future work. First, we concentrate on regional convergence and divergence as well as the determinants of regional growth in the candidate countries. Second, we look at the changes in economic structure, which have occurred since the beginning of economic reforms and third, we present the limited evidence on regional labour market flexibility.

Regional Policy in Socialism

Regional developments in candidate countries, however, can only be understood in the context of the legacies of the former socialist system. Regional policy in the socialist era put more emphasis on the goal of regional equalisation than is the case in most market economies. The policy of "socialist industrialisation" of peripheral regions, however, was associated both with functional disparities and mono-industrialisation (see Smith, 1998). These two phenomena were closely linked to the inefficiencies of production in many candidate countries. In planned economies, incomes and career opportunities of managers were related to plan fulfilment. Managers were thus less concerned about profit and much more risk-averse than their counterparts in market economies. This led to a strategy oriented to avoiding standstills of production by means of hoarding both labour and inventory (see Kornai, 1994). Furthermore, the attempt to avoid production standstills coupled with the firm belief of Marxist economic theory in increasing returns to scale led to substantially larger firms. Managers attempted to obtain control over the complete value chain, while political decision makers hoped to increase production efficiency through increasing returns of scale.

In terms of regional development these distortions had implications for the location of production. Spatial planners in particular were more concerned about bringing work to the workers than in most market economies. New production locations were developed mostly as a site for a plant of much larger firms. In consequence newly established plants in peripheral regions tended to serve production purposes only. Many did not have research and development, design or even "sales" functions (Smith, 1998). This in consequence led to substantial functional disparities. Dostal and Hampl (1994) for instance document that 51% of all Czech firms had their central office in Prague in the 1960s, and in the 1980s almost 60% of the R&D departments resided in Prague.

In most mature market economies such functional disparities would have resulted in disparities in economic activity. In the planned economies they remained latent. In general the outcome of regional planning resulted in a more even dispersion of economic activity than in most market economies (see Huber and Palme, 2001). In particular industrial employment was much more evenly distributed across regions than in most Western European market economies and wage disparities across regions were smaller. Thus in the Czech Republic the average wage level of the region with the highest regional income was 1.3-fold that of the region with the lowest regional wage level. In Slovakia this ratio lay at 1.2. whereas in most EU countries it was substantially higher.

But even socialist spatial planners could not completely disregard the goal of economic efficiency. Bachtler (1992) for instance argues that the preferences given to eastern regions in industrial development in many countries of the former socialist block was a result of the necessity to secure low transport costs for primary inputs from Russia. In consequence, the regional planning process was influenced by numerous contradictory goals, same as in market economies. Furthermore, the

concrete weight attached to different goals changed over time and countries (Hamilton, 1973). In former Czechoslovakia, for instance, the first five year plan explicitly stated the goal of socialist industrialisation of Slovakia; in Poland and the former German Democratic Republic (GDR), on the other hand, little more than general clauses existed in legal texts to guide regional planners.

Socialist industrialisation also implied a tendency to set up mono-industrialised, or mono enterprise regions (see Huber and Ochotnicky, 1995). During transition this mono-industrialisation was of some relevance not only because it increased the risk a region faced on the labour market but also because enterprises in socialist systems took over functions usually provided by state agencies in market economies (such as kindergardens, housing, etc.). Thus, if in a mono-enterprise region the large firm was under financial stress, these social functions would not be provided (Smith, 1998).

Convergence and Divergence in Candidate Countries

Given the substantial functional disparities at the time of reforms it should come as no surprise that the literature on regional development has repeatedly stressed the emergence of regional disparities in candidate countries (see Boeri and Scarpetta, 1996; Petrakos, 1999; Huber and Palme, 2001; Römisch, 2002) and has established a number of lines along which disparities develop. As suggested by theoretical considerations, substantial evidence points to regional divergence rather than convergence in most candidate countries. In Huber and Palme (2001) we find clear evidence of both beta and sigma divergence in the wage levels in Poland, Hungary and Slovakia. Furthermore unemployment rates diverged in Poland and Hungary. Similar results were obtained by Petrakos (1995) using a slightly different time period for Romania, Poland, Bulgaria and Hungary. Finally Römisch (2002), looking at the development of the complete distribution of GDP levels in the candidate countries, finds signs of divergence and polarisation, while Profit (1999), focusing on unemployment rates, presents similar evidence for the Czech Republic[13].

These tendencies of divergence also seem to apply to the larger set of candidate countries considered in this research project and seems to be present – if to a lesser degree – also in the current member states of the European Union. Although empirical evidence concerning GDP *per capita* convergence in the European Union is mixed, with results varying according to the time period (Fagerberg and Verspagen, 1996) and regional disaggregation (see Brändle, 1994), a divergence of regional unemployment rates is found by a number of studies (see Padoa and Kostoris, 1999; and Marelli, 1999). Overman and Puga (1999) also find that European regions have experienced an increasing polarisation in the regional distribution of unemployment rates. Regions which had intermediate unemployment rates in 1986 very often found themselves in the

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[13] These results are also consistent with national tendencies of countries. Boone and Maurel (1998) as well as Konecna (1999) find only weak convergence tendencies among candidate countries both pre transition as well as during transition. Sarajevs (2001) however, finds using a range of methods (simple graphics, non-parametric tests, cross section regressions and dynamic panel estimations) that there is some evidence of alpha and beta convergence.

upper or lower tails of the unemployment rate distribution in 1996, moves to the middle by contrast were rare.

Assessments on the size of regional disparities relative to member states depend on whether absolute measures (such as the standard deviation) or relative measures (such as variation coefficients) are used. Focusing on absolute measures, the Second Cohesion Report (EC, 2001) reports that regional disparities in the Czech Republic (where regional GDP levels differ most strongly among regions) are smaller than in the United Kingdom, Italy or Austria, and range in the middle of other EU member states. The absolute dispersion in regional unemployment rates by contrast seems to have reached levels comparable to middle range EU countries in more advanced candidate countries. The picture conveyed by the cohesion report changes, however, when relative measures of dispersion are considered. Since average GDP levels are substantially lower in candidate countries than in the more developed member states, dividing any measure of dispersion by average GDP leads to higher relative GDP disparities than for instance in Italy (see Huber and Palme, 2001)

Table 16: Estimation results concerning "long run persistence" of unemployment rates in the regions of the candidate countries and EU (Coeffcients of Correlation)

	Unemployment rate 1992–1998	Participation rate 1992–1995	Wages 1992–1995		Unemployment rate 1992–1998	Participation rate 1992–1995	Wages 1992–1995
Poland	0.90	0.85	0.95	Germany	0.99	0.99	0.99
Czech Republic	0.65	-	0.84	Italy	0.96	0.98	0.99
Slovakia (1996)	0.80	0.68	0.93	Netherlands	0.72	0.99	0.96
Slovenia	-	-	0.92	Portugal (1997)	0.78	0.88	0.88
Hungary	0.90	0.86	0.91	Spain	0.78	0.82	0.86

Source: own calculation

Furthermore, the distribution of regional GDP, wage and unemployment rate levels has been relatively stable throughout transition. Regions showing better performance at the outset of transition have also tended to perform better in later phases, which suggests that a substantial part of the comparative advantages of regional development was determined prior to transition, and intra-distribution mobility has been low. This is evidenced in a number of contributions (see, e.g., Profit, 1999; Huber and Wörgötter, 1999) and in Table 16, where we report correlation coefficients of unemployment rates, participation rates and wages in 1990 with the levels prevailing in 1998. These correlation results are highly significant at conventional levels. There is, however, also substantial variance among countries. For instance, the lowest correlation coefficients in unemployment rate levels are reached in the Czech Republic (0.65), and the strongest correlation is found in Poland and Hungary (0,90). For participation rates, the correlation coefficients range between 0.68 for Slovakia and 0.86 for Hungary. In general, countries with

smaller regions (Slovakia and Czech Republic) tend to have the lowest correlation coefficients, while Poland and Hungary exhibit higher correlations in particular concerning unemployment rates.

Interpreting these correlations as a measure of change of position within the distribution, the significance should not come as a surprise. Similar developments can be documented and similar stable distributions for Western Europe and the United States. Indeed when comparing the correlation coefficients to current EU member states they are lower in the CEECs than in the EU, which suggests higher intra- distribution change in the CEECs than in Western Europe.

Determinants of Regional Development

Given the evidence of both divergence in candidate countries and slightly higher intra-distribution churning in the candidate countries than in current member states, it is important to determine what has caused the regional differentiation and polarisation. In analogy to the literature on national development during transition and mirroring theoretical expectations, research into the determinants of successful or less successful regional development has focused on three potential candidates for differentiation of regional "fortunes" in transition.

First, starting conditions – in particular sectoral specialisation, urbanisation and mono-industrialisation – have been repeatedly named as determinants of regional welfare. Second, the effects of integration into the western international division of labour have been looked at and, finally, reform policies (in particular privatisation and new enterprise creation) have been emphasised as potential sources of regional differentiation. Numerous studies (see, e.g., Barjak and Humpold, 1999; Gorzelak, 1996, for Poland; Smith, 1998, and Bucek, 1999, for Slovakia; Totev, 2000, for Bulgaria; Scarpetta and Huber, 1995; as well as EPRC, 2001, for the CEE 10) have attempted to isolate different factors important for regional development. In general these studies point to a set of stylised facts which give some role to each of these developments.

Starting conditions

An analysis of regional development within transition economies points at an important role played by inherited structures for economic development. In general, three lines of differentiation have been of particular importance. First, urbanisation is one of the most important determinants of regional success in candidate countries. In particular large cities and capital cities have profited from transition.

Second, some mono-industrial regions have faced considerable labour market problems in the last decade. As already stated, the socialist system of regional planning tended towards higher regional specialisation of individual regions. In much of the literature on regional development in the candidate countries, a high specialisation of regions thus has been considered a vice rather than a virtue, since many of the industries residing in these specialised regions were expected to decline in future. This is in line with much of the literature on the effects of specialisation on labour markets in

mature market economies (e.g. Curtis, 1992; Topel and Neumann, 1991). This literature (in particular Topel and Neumann, 1991) has pointed out that the disadvantages of specialisation revolve around risk. Specialised regions are particularly susceptible to industry-specific shocks and characterised by a human capital structure that is heavily geared towards the needs of the dominant industry. Heavily specialised regions may therefore be characterised by higher frictional unemployment and a greater risk of asymmetric shocks than less specialised regions. These asymmetries will, however, only result in labour market problems if the respective dominant industry is in decline, while specialisation in growing industries may actually alleviate labour market problems.

More recent literature on regional development, however, has stressed the virtues of specialisation more strongly. The models of the "new economic geography" (Krugmann, 1991) stress localised within- and cross-industry external effects as important for regional growth. If such externalities are important, increased specialisation will be a natural consequence of regional development. This tendency towards concentration is, however, countered by disagglomerative forces such as transport costs and negative externalities caused by increased "congestion" within a region. The optimum amount of specialisation thus depends on transport costs and the extent of positive and negative externalities arising from spatial agglomeration. Thus from a theoretical point of view increased specialisation has an ambiguous effect on labour market development.

Studies which have focused on the link between mono-industrialisation and labour market performance of a region also tend to be irrelevant in this respect. In Huber and Ochotnicky (1995) we find substantial heterogeneity in the development of mono-enterprise regions in the early stages of transition, where mono-industrialisation in particular is uncorrelated with vacancy levels and unemployment rates. Similarly, Herzog (2000) finds that greater specialisation was positively correlated with employment growth in Poland and the Slovak Republic.

Third, peripheral agricultural regions have gone through difficult times during transition. In part this can be explained by falling agricultural income in the candidate countries, which was caused by adjustment to world market prices of both inputs and outputs leading to higher input and lower output prices. The European Commission (2001) finds that poverty rates are particularly high in rural areas of the candidate countries. The problems of rural areas, however, have also been magnified by past experience. Rural areas in transition economies in particular were generally characterised by high specialisation with few alternative sources of income and had an underdeveloped infrastructure at the outset of transition (see European Commission, 2002).

Integration

Integration in the European economy has undoubtedly been an important driving force not only of macro-economic but also of regional development in candidate countries. While early studies argued that regions bordering the European Union in general have profited from their vicinity to

EU countries, more recent studies – influenced by the predictions of geography and trade models – have tended to shift the focus on market access rather than vicinity to EU countries as a major determinant of success in regional development. For instance, Crozet and Koenig-Soubeyran (2002) develop a model which predicts that regions with market access (to western or eastern economies) should exhibit larger growth. In accordance with their model they find a larger increase in urbanisation rates in Romania in regions which have better access to western markets. Similarly, Bosco and Resimini (2002), in focusing on border regions, develop three types (those bordering on EU countries, those bordering on other candidate countries and those bordering on other countries), and find that borders to EU countries were less decisive in shaping regional growth patterns than proximity to core EU countries. Finally, Spirindonova (2002) finds that, in Bulgaria, regions located along international transport corridors and cities along the sea coast have been more privileged, while western regions have not developed so well. In general this thus suggests that integration of the candidate countries has had a markedly regional effect. In particular border regions have profited from purchasing power inflows, foreign direct investments and higher trade exposure, while capitals cities have often attracted FDI as well as profited from increased tourist inflows.

Transition policy

Since transition policies such as stabilisation, trade liberalisation and banking reform were implemented at a national level, little research has focused on their regional impacts. The only policy where substantial regional disparities can be found is in the rate of privatisation (see Scarpetta and Huber, 1995). Recent research has focused on different aspects of privatisation policy (FDI, new enterprise formations and actual privatisation). Such studies have found foreign direct investment (Dostal, 1999, for the Czech Republic) and entrepreneurial spirit (Fazekas, 2000) to be significant influences on development. The labour market consequences of faster or slower paces of privatisations are, however, more complicated. In particular it seems that regions where privatisation has been more rapid, job destruction processes in old formerly state-owned enterprises have been faster (see Faggio and Konings, 2000; and Duffy and Walsh, 2002), as was job creation in new enterprises. The aggregate effect of more rapid privatisation on unemployment rates has thus remained ambiguous. Scarpetta (1995) for instance finds ambiguous results concerning the impact of the private sector share on unemployment levels, while Fazekas (1996) finds that entrepreneurial capacity in a region reduces unemployment.[14] The more rapid restructuring in regions with faster privatisation, however, seems to have come at the price of

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[14] It must be stressed that interpreting the correlations between labour market developments and FDI, privatisation, etc. as causal is burdened with methodological problems. Causality may run in both ways: Either one could argue that faster privatisation and more FDI causes lower / higher unemployment or one could hold that regions with better development prospects (which can be measured i.a. by unemployment) attract more FDI and privatisation.

higher income disparities. Sibley and Walsh (2002) find that in Poland regions deemed to be further advanced in transition are also regions with higher internal regional disparities.

The Economic Geography of Structural Change in the CEE

Aside from divergence and polarisation tendencies, candidate countries have experienced substantial structural change in the sectoral composition of employment in the last decade. Boeri and Terrel (2002) for instance report that the private sector employment share in Central and Eastern European candidate countries increased to 67.7% from virtually zero and that the share of employment in small-scale firms with fewer than 100 employees was 41.7%, while the share of services in total employment increased by 10.1 percentage points from 1989 to 1998. In particular this last figure is interesting because theoretical research on structural change in transition economies has shown little interest in the topic of structural change at the sectoral level and even less so in the regional differentiation of this structural change although existing theory and empirical evidence from the experience of the North American Free Trade Area and European Union suggest that economic integration results in relocation of industrial activity as well as potentially increasing regional specialisation and concentration of manufacturing activities.

These stylised facts are of particular interest in the context of transition because during the last two decades there has been a growing academic and policy interest in the spatial impact of economic integration, related to a general concern that structural change accompanying economic integration is likely to result in increasing regional specialisation and concentration of industrial activity, which in turn may make regions vulnerable to asymmetric shocks. In such a case, industry-wide demand shocks may become region-specific shocks and the short-term adjustment costs may be high if a firm is relocated. On the other hand, the long-run industrial relocation allows exploiting gains from comparative advantages, and clustering of industrial activities is expected to bring productivity growth. Central and Eastern European economies have experienced dramatic changes in their trade structure as well as foreign direct investment. This rapidly increasing integration with the European Union via trade and foreign direct investment in the last decade thus provides a test ground for empirical analysis of the causes of structural change at the regional level.

Sectoral structural change at the national level from 1989 to 1998 is analysed by Mickiewicz (2001). He finds that the employment share of services has increased in the candidate countries. Furthermore, the speed of change of industrial structures in these countries is faster than in Portugal or Greece. Despite this tertiarisation, the share of industry in overall employment was still above that of current EU members in 1998 (see Mickiewicz 1999). Mickiewicz and Zalewska (2001 and 2002) as well as Mickiewicz (2001) find that there have been two distinct forms of sectoral restructuring, which Mickiewicz (2001) terms the vertical path, where de-industrialisation has led to increasing shares for the agricultural sector, and the horizontal path, where service sector activity has replaced industrial activity. The vertical path has been followed by countries such

as Romania, Russia and Ukraine, while the horizontal path characterises many of the more advanced transition economies such as those of the Vysegrad-4 as well as Estonia and Croatia. Mickiewicz and Zalewska (2001 and 2002) also find that the determination with which of these paths are followed seems to have been strongly determined by the institutional reform path taken by the respective region. Econometric evidence suggests that indicators developed by the EBRD concerning the extent of structural reforms are important in predicting structural change in the candidate countries. In particular, successful restructuring at micro level (resulting from ownership changes and implementation of efficient corporate governance systems) seems to covariate strongly with the 'efficient' sectoral restructuring at macro level.

Huber and Palme (2000) focus on structural change at the regional level by analysing the developments of concentration and specialisation in the of the primary secondary and tertiary sector. They find much the same results as Mickiewicz (2001). In particular:

- Since 1992, structural change has been significantly higher in the regions of Hungary, Slovakia, Poland and the Czech Republic than in Spain, Italy or the Netherlands.

- Structural change has been carried by increasing shares of the tertiary sector and a reduced share of the secondary as well as primary sector.

- Despite this change, the regions in the candidate countries still differ markedly in their employment structure from current EU member states such as Italy and Spain. In general the share of industry is higher than in the EU member states, and in some countries (Slovakia, Poland) the primary sector plays a much more prominent role.

- In the secondary sector, economic activity has deconcentrated since 1992, but in the tertiary sector it has concentrated in particular on capital cities in all countries except Slovakia where exactly the opposite trends were registered.

- The specialisation of regions has increased rather than decreased in all countries considered (Czech Republic, Slovakia and Hungary).

Traistaru, Nijkamp and Longhi (2002) investigate patterns of regional specialisation and geographic concentration of manufacturing and their determinants in Bulgaria, Estonia, Hungary, Romania and Slovenia using regional manufacturing employment data for the period 1990-1999. The main findings of this study suggest that average regional specialisation has increased in Bulgaria and Romania, decreased in Estonia and has not significantly changed in Hungary and Slovenia. Regions bordering the EU are found to be less specialised than the national average regional specialisation in Estonia, Hungary and Slovenia while they are more specialised in Bulgaria. Regions bordering other accession countries are found more specialised compared to the national averages in Estonia and Hungary while in Bulgaria and Romania this type of regions are less specialised. Regions bordering other countries (non EU, non accession countries) have become more specialised with the exception of Romania. Non border regions are less specialised

in Bulgaria and Hungary and more specialised in Romania and Slovenia. High regional specialisation is associated with bad economic performance while diversified regions perform better. Regions bordering the EU are found to perform better than the other regions in Bulgaria, Estonia and Hungary. Industries with high economies of scale, high technology and high wages are concentrated while industries with low technology and low wages are dispersed. Geographic concentration of manufacturing has increased significantly in Bulgaria but has not changed significantly in the remaining four countries. The results of the econometric estimation of determinants of manufacturing location suggest that both factor endowments and geographical proximity to industrial centres explain the economic geography of manufacturing in accession countries. Labour intensive industries tend to locate in regions with labour abundance while regions endowed with researchers attract research intensive industries .. Industries with large economies of scale tend to locate in regions close to industrial centres (the capital cities in Bulgaria, Romania and Hungary; European markets in the cases of Estonia, Hungary and Romania).

- the case of Bulgaria, Spiridonova (2002) finds that in the period 1990-1999, absolute and relative specialisation have increased in 21 regions out of 28. Most manufacturing industries have become more concentrated. The most concentrated industry is Fuels and the least concentrated is Food, Beverages, Tobacco. There has been a relative decrease in industrial employment in the big cities (Sofia, Varna, Plovdiv, Gabrovo, Stara Zagora) and traditional industrial centres (South - West, South - Central and North - Central). GDP per capita is significantly and negatively associated with the regional unemployment rate suggesting that poor regions are more likely to suffer high unemployment.

- In the case of Estonia, Fainshtein and Lubenets (2002) find that in the period 1990-1999, absolute and relative specialisation have decreased in 4 out of 5 regions. Absolute concentration increased in 4 out of 13 manufacturing branches while relative concentration has increased in 6 manufacturing branches. The most concentrated industry is Motor Vehicles and Transport Equipment and the least concentrated Food, Beverages and Tobacco. Diversified regions have a higher GDP while specialised regions with a small number of manufacturing industries have the lowest GDP per capita. In the analysed period, relocation of manufacturing activity has taken place from the industrially developed regions to the periphery. A negative relationship has been found between regional GDP and unemployment.

- In the case of Hungary, Redei (2002) finds that in the period 1992-1998, 12 out of 20 regions have experienced an increasing specialisation in absolute terms but relative specialisation has increased only in 8 regions. Western regions are more specialised compared with the rest of the country. Geographic concentration has increased in 4 out of 10 industries. The most concentrated industry is Chemicals and the least concentrated Machinery and Equipment. Western and Central regions are more dynamic and are catching up with the European averages while increasing polarisation seems to be the trend in Eastern and Southern regions.

- In the case of Romania, Traistaru and Pauna (2002) finds that in the period 1991-1999, absolute specialisation has increased in 25 regions out of 41 while relative specialisation has increased in 29 regions. The highest regional specialisation is found for Bucharest, North-East, South - West and South and the lowest in the Centre, West and North - West. Most manufacturing industries (10 out of 13) have become more concentrated. The most concentrated industry is Electrical Machinery and the least concentrated Food, Beverages and Tobacco. The evidence indicates a decreasing share of manufacturing employment in the capital city and an increasing share of manufacturing employment in the Centre region. Regional GDP has a greater concentration compared to GDP per capita. However, while the degree of concentration of GDP has remained almost the same in the period 1993-1998, the concentration of the GDP per capita has increased indicating a tendency towards income polarisation. Regional specialisation is found to be negatively related to regional GDP and unemployment rates.

- In the case of Slovenia, Damijan and Kostevc (2002b) find that in the period 1994-1998, absolute and relative specialisation have increased in 7 out of 12 regions. The lowest regional specialisation is observed in the largest regions (Osrednjeslovenska and Podravska) while specialisation is the highest in the smallest regions (Spodnjeposavska and Zasavska) and in Pomurska region. There is evidence of relocation of manufacturing activity between regions. Regions with initial big shares of manufacturing employment have benefited more from the economic integration with the EU while regions with low shares of manufacturing employment have not gained from the relocation process. Econometric tests suggest that lower growth of GDP per capita is associated with higher unemployment rates.

Resmini (2002) analyses determinants of location and growth of manufacturing activities in border regions in Bulgaria, Estonia, Hungary, Romania and Slovenia and suggests that regions bordering the European Union have been taking advantage of their location since the beginning of the transition process. Thus, high wages, skilled labour force and a well developed service sector have contributed to increasing employment in manufacturing activities relative to national averages. Foreign direct investment (FDI) is found to have a negative impact on relative employment, probably due to severe restructuring processes adopted by foreign firms to make competitive the former state-owned enterprises. The location of manufacturing activities in other border regions has been positively affected not only by FDI, but also by region accessibility – measured in terms of road density – skilled labour force and the service sector, while distance from the capital city, the core of economic activity in several candidate countries, exerts a negative effect on relative employment. Regional differences seem to be less marked when one considers relative employment growth, which seems to have followed a pattern of convergence within regions and have been led mainly by FDI. Region specific effects are only weakly supported by data. Growth prospects seem to confirm the better position of border regions relative to internal ones. The former are, on average, expected to grow, while the latter show stagnation or a small decline,

other things being equal. Among border regions, regions bordering the European Union and external countries (non European Union, non accession countries) show the highest predicted growth rates. It is, however, worth noticing that prospects for growth are country-specific.

Traistaru and Wolf (2002) investigate and explain regional differentials in employment changes in Bulgaria, Hungary and Romania. Using a shift-share method this paper finds that the variance of regional employment change is driven almost entirely by region-specific factors while regional specialisation and regional competitiveness play only a minor role in explaining regional employment change differentials. Employment change differentials are uniform across sectors and vary across regions. This implies that the nature of shocks seem to be region-wide rather than industry-specific. Over the period 1990-1999 the share of the variance due to region-specific factors has decreased however in Bulgaria and Hungary while in Romania has increased.

Regional Labour Market Flexibility

Aside from long-term developments of regional convergence and specialisation, regional labour market research in advanced market economies has in recent years been particularly interested in the short-term labour market adjustments of regions. In particular Blanchard and Katz (1992), in a seminal paper, estimate structural vector autocorrelations (SVARs) including participation rates, employment growth and labour force growth to identify the effect of regional labour demand shocks in US states. They find that in a typical American state, shocks to labour demand feed into a permanent reduction in employment, while due to high interregional migration, participation rate and unemployment rate reactions are short-lived only. In contrast to this, Decressin and Fatas (1995) and Fatas (2000) find that in European countries the reaction of participation rates is more long-lived than in the US, due to lacking interregional migration. Furthermore, similar results for individual countries were derived for Spain (Bentolila and Jimeno, 1995; and Mauro and Spilimbergo, 1999) and to a lesser degree for Belgium and Sweden (Delaigle and Lohest, 1999; Fredrikson, 1995).

In the context of candidate countries, little research has been devoted to applying this methodology. Wörgötter and Huber (1999) and Huber (2002) applied some of the methods used in this literature with regional labour data for candidate countries. In Huber and Wörgötter (1999), we estimate a bivariate structural vector auto-regression on monthly regional unemployment rates to identify the asymmetry and persistence of region-specific shocks in Poland, the Czech Republic and Slovakia. We find that region-specific shocks account for around 60% of the total variance of regional unemployment rates in these countries. Also we find that region-specific shocks were highly persistent during the period from 1991 to 1996.

In Huber (2002), we use annual data from Poland, Hungary, the Czech Republic, Slovakia and Slovenia to analyse the univariate properties of regional labour market indicators and compare results to a set of European Union member states. We find that, in general, unemployment rates

tend to be more persistent and participation rates less persistent than in member states and that intra-national migration is low and declining in the candidate countries. We, however, also find substantial heterogeneity among both candidate as well as member states which leads us to conclude that national differences in labour market adjustment within the two regions considered may be more important than differences between regions.

Conclusions

Given the lines along which regional disparities currently develop in the candidate countries, there is some potential for accession to accelerate regional divergence. In particular the major changes induced by accession hold a potential to encourage growth primarily in already privileged regions:

1. Given the distance dependence of FDI, the fact that foreign direct investment occurs mainly in regions which already have better regional prospects and that headquarters primarily locate in large (capital) cities, increased FDI could encourage regional growth in regions which are already prospering, while less prosperous regions may fall behind.

2. Given the substantial liberalisation of trade with agricultural products and the lower productivity in agriculture in the candidate countries, it can be assumed that rural regions – already lagging in regional development – will require substantially more restructuring compared to urban regions.

3. Given that all regions of the candidate countries (with the exception of perhaps some capital cities) will become objective 1 regions, and that national funds devoted to regional development are limited, the likelihood that regional policy will contribute to equalising intranational regional disparities in candidate countries seems limited.

Evidence of a potential of regional specialisation causing increased business cycle asymmetries within countries, by contrast, seems to be much less clear cut. Experience in the last decade suggests that much of the developments of concentration and specialisation are country- and/or industry-specific and to a large degree shaped by the inherited economic geography of the socialist regimes.

Previous Experience with Integration

While the analysis of internal adjustment mechanisms in the candidate countries gives an indication of the status quo, the multidimensionality of the European integration process introduces an element of endogeneity of the institutional framework to the integration process, which cannot easily be dealt with by analysing these countries on their own. As candidate countries become integrated in the European Union, their policy makers' incentives will change, they will have some decision power concerning policy making at the European level and they will develop own interests concerning the future process of European integration.

This "political integration" will also have implications on the labour market performance of candidate countries. At least three reasons for such endogeneity have been given in the literature:

- First, as recently argued by Burda (1998), accession to the European Union could impede the capability of candidate countries to cope with asymmetric shocks on the labour market if the adoption of the social **acquis** of the Union leads to reduced labour market flexibility.

- Second, as pointed out by Clamours (2001) and Cukierman and Lippi (2001), membership in the EMU may itself reduce incentives for labour market reforms since national wage bargainers may fail to internalise the external effect of their labour market reforms on the other member states. Indeed empirical evidence presented by Van Poeck and Borhijs (2001) suggests that prospective EMU members reformed labour markets institutions less than non-EMU members in the last decade, even when they were characterised by high equilibrium unemployment rates.

- Third, access to substantial regional transfers within the framework of the cohesion funds, if used mainly to finance transfers rather than investment in low income regions, could in effect distort incentives to migrate and lead to even lower migration levels than already observed today. Indeed such arrangements are more likely when regional funds are distributed by a central state (see Perotti, 2001).

One way to learn about the relevance of such potential endogeneity is to study previous integration experiences of other countries. One case of such integration that has received substantial attention in recent research was North American (NAFTA) integration. In this case the effects of integration on the overall economy and in particular on border regions has been widely researched. Isolating the integration effects, however, has proven far from easy. This is due on the one hand to a shortage of data and on the other hand to the financial crisis in Mexico and the subsequent steep decline of GDP in 1995 (see European Integration Consortium, 2001).

A series of papers summarised by Hanson (1998) researches the impact of integration on both the border regions in the US and in Mexico. Following the prediction of economic theory (in particular by models of new economic geography) which holds that when trade liberalisation occurs

economic activity should move closer to the foreign market (provided this foreign market is large enough relative to the home economy), Hanson correlates regional employment and wage growth on measures of centrality of a region vis-à-vis the home economy and the foreign economy (the US for Mexico and Mexico for the US). He finds that before trade liberalisation with the US, accessibility to US markets played a less important role and distance to Mexico City a more important role in explaining regional wage and employment growth. By contrast, no such changes can be found for the US. This implies that trade liberalisation with Mexico was just "too small to matter" from the point of view of the American economy.

North American integration is, however, a rather inappropriate benchmark for European integration, although differences in GDP *per capita* between the US and Mexico are comparable to differences between the EU and candidate countries. NAFTA is primarily concerned with trade liberalisation rather than full integration into an economic and monetary union as is the case for the European Union (see European Integration Consortium, 2001). In this chapter we thus focus on the literature on two European integration episodes: first, integration of the southern European member states and, second, German unification. Each of these integration cases has its own strengths and weaknesses as an analogy to integration by the candidate countries.

German unification is to date the only example of integration of a formerly planned economy into a Western European state. At the same time it represents the most radical integration experiment on the European continent in post-war history. As such it included a number of features which are not under discussion in the case of accession of candidate countries, such as the immediate integration into both a monetary as well as a social union, which brought about a 370% increase in labour costs in East Germany, as well as implementing the West German system of wage bargaining, which tended to reduce wage pressure (see Heitger, 2001). Furthermore, German unification included regional transfers to East Germany which far exceeded the West German levels and was associated with a radical privatisation and reform programme in East Germany. Finally, this economy obtained the institutional system of one of the most developed market economies in Europe overnight. Accession of the "southern EU members" of Spain, Portugal and Greece by contrast is arguably more similar to what can be expected from the CEEC's accession to the European Union in terms of institutional changes. However, it occurred at a time when fundamental aspects of the *acquis communautaire* were not developed to the same degree as is the case in Europe today.

German Unification

German unification is thus a somewhat special case of European integration. While at the outset political observers in particular were optimistic that existing income disparities would rapidly diminish, on condition that substantial financial aid is given and considering the relatively good starting position of East Germany, recent literature takes a more sober look at the achievements of unification. Specifically, it has been shown that the process of convergence in terms of productivity

which characterised the early phases of transition came to a halt after 1999 (see Sinn and Westermann, 2000), that investment in the East German economy – after a surge in housing investments supported by generous tax benefits – declined relative to that in West Germany, and that wage convergence between East and West Germany is also proceeding more slowly than originally expected. This has led more recent inquiries in the speed of convergence of the East German economy to assume that it may take up to 20 years for East Germany GDP to reach a level of 80% of West Germany.

The failure to converge and the high regional transfers granted to East Germany have led Sinn and Westermann (2000) to liken East Germany to the Mezziogiorno (see also Boltho, 1997). According to them, high subsidies causing a negative value of capital, welfare payments, extreme wage demands by German unions are to blame for the long-term failure of the East German economy to converge to Western European levels. In a similar vein, Canova (2000) shows that in a two-region model of German integration redistributive measures of the welfare state may contribute to turning the original "win-win situation" of German unification into a situation associated with welfare losses. In this interpretation of events, the primary lessons from German unification for Eastern Europe are that high transfers paired with inflexible labour market regulations as well as excessive wages are the primary reasons for the failure of Eastern Germany to converge to Western European welfare levels.

This view has, however, not gone unchallenged. For instance, Bonin and Zimmermann (2000) argue that focusing on negotiated wages may distort the picture since wage drift (i.e. paying wages in excess of bargained minimum wages) is common in West Germany but rare in East Germany. Furthermore, a substantial part of East German firms are not covered by union wage agreements and pay substantially lower wages than their counterparts in West Germany, and, finally, a number of extra payments such as a holiday or Christmas bonus are not as common in East Germany as they are in West Germany. In their view, high unemployment rates in Eastern Germany can be attributed to a combination of high labour supply and the lack of modernisation, especially in the public sector. Reading empirical evidence this way suggests that German integration has also put West German unions under considerable pressure and actually undermined trade union power in Germany (see European Integration Consortium, 2001).

Yet another interpretation of the events is given by Brakman *et al.* (1999). They argue that what was originally assumed to be good starting conditions in the framework of a neo-classical model, may be interpreted less favourably when viewed in the eyes of more modern theories of regional development. In particular they argue that transport costs were dramatically reduced between East an West Germany by unification, which in increasing returns to scales economies will favour the development of the larger region rather than the smaller region, leading to an emigration of both labour and capital. They also find that the stylised facts of sectoral development in East Germany tend to support such explanations. Again this interpretation may hold some important implications for regional development strategies in the candidate countries. In particular it suggests that starting

conditions in the candidate countries must be compatible to their accession to the European Union.

Aside from examining the reasons for the failure to converge in terms of productivity, inter-German integration has been used to analyse wage convergence and migration processes between the two countries. As to wage convergence, an early study by Kruger and Pischke (1992) finds that East German wage structures were relatively quick to adjust to West German levels. In particular they find that returns to education increased dramatically and approached West German levels, as did wage inequality. Kruger and Pischke (1992) show that the East German wage structure still differed substantially from West Germany and that age-experience profiles in particular were much flatter in East Germany. This was interpreted to be a sign of convergence of wage structures.

More recent evidence presented by Steiner and Wagner (1997) and Burda and Schmidt (1997), however, suggests that much of this convergence has come to a halt. Steiner and Wager (1997) for instance find that the differences in wages between East and West Germans can be explained to a very small degree only by differences in observables such as educational attainment, etc. Most of the differences appear to be due to differences in returns to age, experience and education. Similarly, Burda and Schmidt (1997) show that differences in returns to age and experience seem to be very important in explaining East-West wage differentials, since the wage disadvantage of East Germans is increasing with age at unification, and relative wage growth for East Germans is increasing with time remaining in the labour force.

There are also a number of empirical papers which analyse the determinants of East-West migration in Germany after unification on the basis of micro (i.e. individual) and macro data sets. The most comprehensive is Hunt (2000), other important contributions are Burda (1993), Burda et al. (1998), Schwarze (1996) and Pischke et al. (1994).

The paper by Hunt is based on the GSOEP household panel (1990–1997) and on regional data at the state (Land) level (1991–1996). The regressions based on individual data explain migration and commuting probabilities by a set of individual variables (age, education, gender, family status) as well as distance and time dummies. Some regressions include wages and employment status. The results confirm the "brain drain" hypothesis, i.e. education and migration/commuting are indeed positively correlated. Moreover, individual unemployment has a strong impact. The evidence for wage levels is weak. However, the regressions based on state data provide strong evidence for the hypothesis that migration is motivated by wage and employment differences between the receiving and sending locations. Hunt provides valuable insights into the determinants of East-West migration.

The papers by Burda (1993) and Burda et al. (1998) similarly rest on the GSOEP data. They explain migration intentions as revealed in the GSOEP rather than actual migration basically by income variables and a set of individual characteristics. The key variable, however, is the wage differential. The main finding of the papers is that there is a non-linear relationship between wage

differences and migration propensities, which is interpreted as evidence for the option value theory of migration under uncertainty (see Burda, 1995). This non-linearity in the relationship between migration and wage levels is also confirmed by an analysis of regional data by Van Leuvensteijn and Parikh (2000).

Schwarze (1996) combines information on intended and actual migration. He finds a negative impact of wage levels and, surprisingly, a positive impact of wage growth in East Germany with regard to actual migration, results which run counter to intuitive expectations. He stresses the importance of expected wages which may significantly differ from observed individual wages. Using individual responses considering the probability of job losses, Schwarze constructs subjectively expected wages for each individual. After rerunning the model with expected wages, the coefficients are in general more plausible. Wages still have a negative effect on actual migration and the coefficient of wage growth is also negative although not significant.

The paper of Pischke *et al.* (1994) is based on the Arbeitsmarktmonitor on east-west commuting from November 1990 to November 1991. They find, inter alia, a positive correlation between commuting and education levels. Another analysis of place-to-place commuting between East and West Germany at *Kreis* level in 1997 is presented by Alecke and Untied (2000). They find that both wage and unemployment rate differentials between sending and receiving regions exert a significant influence on commuting, but distance seems to have a stronger influence. An increase in the unemployment differential by 1% between the sending and the receiving region increases commuting by around 0.4%, and decreasing the wage differential between receiving and sending regions by 1% reduces migration by 0.4%. The elasticity of commuting with respect to distance is around 1.3 by contrast.

Altogether, the empirical literature on east-west migration and commuting supports the "brain drain" hypothesis, i.e. higher qualified East Germans tend to migrate more than those less qualified. Moreover, a negative correlation between age and migration confirms a standard hypothesis of the human capital theories of migration, added to which other migration factors, i.e. distance, family and other social ties, affect migration and commuting decisions. It is important to note that the theoretical foundation of most empirical models is either missing or shaky. More specifically, there are three areas where additional work can provide significant contributions:

- The relationship between migration flows (or stocks) on the one hand, and wages and other income variables on the other is not derived from a coherent theoretical framework. Empirical models derived from economic theory may well result in other specifications and help to understand intriguing results such as the non-linear relationship between wage and income variables which have been found *inter alia* by Burda *et al.* (1998).

- The relationship between the human capital characteristics of migrants and relative wage differences (or income distribution) between regions is not explored. This is of particular interest for our question. Including either variables on the income distribution in macro- or wage

differences for specific skills in micro models may provide additional insights into the economic determinants of the human capital composition of migrants.

As practiced by the whole literature, wage and employment variables are treated as being exogenous. However, we are also interested in the wage and employment impact of emigration. We should at least consider the possibility of endogeneity of the wage and employment variables with regard to migration.

Spain, Greece and Portugal

While German unification is a rather extreme case of integration both in terms of scope and speed, southern enlargement may be looked upon as slightly more representative of the accession of current candidate countries to the EU. There are, however, some caveats to be entered against this comparison. Since the southern EU member states joined the Union, the *acquis* has developed substantially. Thus the Union today is different from the Union joined by Spain, Portugal and Greece. Furthermore, income differentials between joining members and bordering incumbents were smaller than can be expected from eastward enlargement (see European Integration Consortium, 2001).

Given the substantial experience of Europe with much more far-reaching integration than the case of NAFTA, only very little systematic research has come forth on the link between integration and regional as well as national development. Recently, the European Integration Consortium (2001) conducted a major study which documents the substantial heterogeneity of national developments after southern enlargement (Spain, Portugal and Greece). The major conclusions of this study and related research can be summarised by five points:

1. There is some evidence that integration has increased industrial restructuring as measured by job creation and job destruction rates, as well as sectoral shifts which grew in each of the three countries. This was, however, also the case in other EU countries. Similarly, the degree of openness increased and the direction of trade of the countries changed. This seems to have been a long-term trend since the 1960s which cannot be directly linked to the accession. There is, however, some evidence that foreign intermediary inputs were substituted for native ones as a consequence of accession (see de Broer and Martinez, 1999; and De Broer, Martinez and Harkema, 2000).

2. Inward FDI flows increased substantially after accession in both Spain and Portugal but not in Greece, which may be attributed to the political instability and poor macroeconomic performance in this country. This can be taken as weak evidence of an increase in FDI.

3. Migration from the member states after the expiry of derogation periods for the joining countries seems to have followed highly country-specific patterns. While emigration of

Portuguese to France increased, no such effect can be found for the flow of Portuguese to Germany or the Spanish to either Germany or France (see Alecke *et al.*, 2001).

4. The most important momentum for development has come from structural funds. These have increased public investment in the countries considered. According to estimates by Bosca *et al.* (1998), the stock of public capital would have been 10% lower in these countries without structural funds, while De la Fuente and Vives (1995) suggest that regional funds added 2 percentage points to average productivity growth.

5. The evidence suggests that labour market development depended strongly on the flexibility of national labour markets. The favourable development in Portugal can be attributed to a generally more flexible labour market while the less favourable development in Spain may be attributed (aside from statistical differences) to differences in the institutional preconditions for labour market flexibility.

All in all, this does not provide a clear cut picture concerning the effects of past integration on the labour market and regional development. More evidence with regard to labour market developments is given in Burda (1998). He argues that, while labour market developments after accession remain inconclusive, a clear tendency can be found for unemployment rates to increase shortly before accession. This suggests that a substantial part of restructuring and institutional changes is accomplished before accession.

Similarly, evidence on the effects of integration on regional development is scant. De la Fuente (2002) analyses the impact of integration on convergence in Spain. He concludes that much depends on the concrete policy options taken by the government and the adequate use of structural funds. His results also clearly suggest that equalisation of schooling levels across regions and redistributive public investment have contributed to convergence, while falling migration rates and increased structural change have contributed to reducing convergence rates in Spain since accession. In Huber and Palme (2001), we perform difference-in-difference tests of GDP growth performance of border and non-border regions before and after accession. We find no statistically significant changes in growth rate differences between border and non-border regions in Spain and France. This leads us to conclude that previous integration experiences have not affected border regions in an unambiguous way. A slightly more encompassing view of convergence is taken by Delhey (2001). He argues that, aside from economic indicators, other indicators such as life satisfaction should be included when looking at social and economic catch-up processes due to integration. He similarly concludes that "EU integration obviously facilitates processes of catch-up but does not guarantee them."

Conclusions

In general, an analysis of previous enlargements does not give any clear guidance on the concrete effects of EU integration – neither the development of internal cohesion nor the development of

catch-up processes in the acceding countries. Positive examples such as that of Spain are accompanied by less favourable experiences such as that of East Germany. This suggests that it may be premature at this stage of the discussion to jump to conclusions concerning the overall impact of EU enlargement on the candidate countries. The literature does, however, suggest that the speed of structural change and industrial restructuring is increased during the period of accession, which may stretch back some time before the actual accession date.

Furthermore, experience does not suggest that the labour markets of the new entrants may expect immediate and unconditional reductions in unemployment rates. Most analysis points to a slight increase in unemployment at least at the outset, due to greater structural change, which may feed into long-term increases if institutions and policy do not react appropriately.

The evidence collected in this chapter also suggests that a decisive role is played by policy in determining the success of integration. If labour market institutions in countries do not provide sufficient flexibility to adapt to the original structural shock of accession and if wage policy fails to take into account the particular challenges faced by accession, this may contribute to long-term labour market problems. This underlines the necessity of measures to enable workers to satisfy the demand for mobility, but also the importance of income policy to take a realistic approach to the speed of convergence after accession. Furthermore, if regional funds are not used to enhance the endogenous growth potential of the respective countries, this may lead to a long-term failure to converge.

Summary and Plan of Future Work

The central focus of this literature summary was to describe labour markets and regional development in transition countries, identify the sources of changes in the candidate countries triggered by accession to the European Union and discuss some of the results regarding the likely impact of the changes on labour markets in the candidate countries. We find that there has been substantial convergence of candidate countries to Western European institutions and labour market outcomes. Furthermore, there has been substantial heterogeneity among countries. Despite this, the labour markets in the candidate countries have their individual features, most important among them:

- Long and persistent reductions in employment rates to levels which are in general lower than in the more successful member states as well as a higher incidence of long-term unemployment, which ranges in the upper half of the EU member states for all candidate countries.

- More severe mass redundancy regulations and weaker trade unions and social partnership organisations.

- Low turnover in and out of unemployment despite substantial structural change. In particular flows out of unemployment have remained small and most of the change in the sector composition of the work force seems to have been accomplished by job-to-job mobility paired with early retirements and new workers.

- Declining internal migration rates despite rising regional disparities.

Given these "stylised facts", only few of the studies have been concerned with the issues of labour market dynamics and adjustments in candidate countries. Preliminary evidence suggests that wages may react somewhat more strongly to changes in regional unemployment rates, but the evidence is far from conclusive. Furthermore, little is known on how, e.g., labour supply, migration and wages react to aggregate changes in labour demand.

We also identified three sources through which EU candidate countries may experience changes in their institutions. These are: first, institutional changes triggered by adopting the social *acquis*, environmental and competition policy as well as – probably at a later stage – accession to EMU, second, the impact of the EU's structural policy on the candidate countries, and third, changes in trade, foreign direct investment and migration. We find that in assessing the consequences of most of these changes the literature is far from unanimous. It is thus probably still too early to assess the potential effects of these changes from the literature. Nonetheless a number of important hypotheses can be developed from the literature surveyed:

1. Substantial evidence suggests that integration has important structural and distributional effects as well as positive aggregate effects. In particular, both for theoretical reasons as well as from

empirical evidence it can be held that some sectors will be affected positively and others more negatively. This may result in differentiated regional outcomes, to the degree that regions are specialised in certain sectors.

2. Given the effect of integration on structural change, this suggests that the capability of labour markets in candidate countries to adjust to structural shocks will to a large degree determine the labour market effects of integration.

3. There is substantial theoretical evidence, however, which suggests that extrapolating purely from the current labour market dynamics to a time after enlargement may lead to misinterpretations, since the "adjustment mechanism" may be endogenous to integration.

4. Empirical work on previous enlargements and integration cases suggests that national policy decisions and use of structural funds are a key element in triggering regional development and catching up.

This suggests that regional (and more generally distributional) issues should be given attention when analysing integration effects. Experience from previous enlargements, although far from conclusive, seems to suggest that accession to the European Union is associated with a series of structural shocks and thus accelerates the speed of structural change and industrial restructuring. This confirms the importance of flexibility for accession to be economically successful.

Furthermore, the scant scientific analysis of previous enlargements suggests that convergence of GDP *per capita* levels is far from automatic after accession. Policy takes a more decisive role in determining the experience of enlargement than is usually suggested by pure model-oriented economic analysis. In this respect looking at previous research on regional development in candidate countries points at some potential for further divergence of intranational disparities even after accession if national policies are not formulated to counter these effects. The literature finds evidence for divergence in regional development, low migration rates between regions, as well as some evidence that the expected shocks of enlargements (FDI, trade and migration) may have decisively regional implications which are likely to reinforce existing lines of differentiation. Much of the developments of concentration and specialisation by contrast seem to be country- and or industry-specific and to a large degree shaped by the inherited economic geography of the socialist regimes. This suggests that in the accession countries regional policy may play a decisive role in determining the speed of convergence at both national and regional level.

Issues

While differences among the candidate countries seem to be larger than among current EU member states, these facts point to a number of challenges that will be faced in regional labour markets of most candidate countries. Given the importance that accession will succeed for

candidate countries as well as member states, answers to the following questions seem to be particularly urgent:

- Why is the probability of escaping from unemployment so low in the candidate countries and how can schooling, active labour market policy and wage policy help to increase flexibility in the particular economic circumstances of candidate countries? What hinders firms to hire unemployed? These issues may be particularly relevant from a policy perspective when considering the importance of both labour market flexibility in the candidate countries and the importance of human capital development in catch-up processes.

- Why are migration rates so low despite high regional disparities? Can inefficiency in housing markets, spatial mismatching or liquidity constraints help to explain the lack of migration? How is low migration reflected in other aspects of regional labour market adjustment (such as wage flexibility, unemployment and participation decisions)? Answering these questions is important for policy makers for two reasons: first, answers to these questions will make it possible to formulate proper policies to enhance labour market adjustment; second, if analysed in sufficient detail, an indication will be obtained of which social groups may be most strongly affected by integration.

- What have been the reasons for regional divergence in most labour market indicators in the candidate countries and how has this divergence impacted on more latent features of the labour market such as labour supply decisions by individuals and recruiting decisions by firms?

Future Research

Given the issues raised in this literature survey, we will, in the future, focus in greater detail on regional adjustment to shocks in candidate countries. We will estimate an economic model of regional labour markets, using techniques of panel econometrics to identify shocks to labour demand and labour supply in selected candidate countries. The effects of such shocks will be simulated to assess their dynamic impact on regional labour markets. In a first step, we will present overall results. In a second step, we will focus on different adjustment paths across different types of regions and compare these to EU countries.

One of the major puzzles concerning labour market adjustments raised by this survey is the low and declining mobility in most candidate countries. To find out the causes, we will focus on determinants of migration and mobility in the candidate countries. We will model and analyse the earnings and mobility outcomes for individuals in candidate countries, and compare them to the patterns observed in Western Europe as well as measuring the flows across labour force states (employment, unemployment and non-participation in the labour force) and analyse the determinants of the labour supply decision. Finally, since, as the survey suggests, educational attainment may be a key element in explaining low mobility, we will focus on training and qualification issues by quantifying the allocation of the work force by skill category, across earnings

groups, industries and occupations at the start of the transition process. We will estimate the relationship between human capital and measures of regional labour market outcomes, while controlling for other relevant variables and the selection bias due to the endogeneity of individual mobility decisions. Finally, will we study schooling choices by gender in the mid and late 1990s as a function of the changes in relative earnings.

Firm level behaviour will also be analysed. In particular the influence of institutional settings of the labour market, including employment protection, on the decisions of individual firms and their effect on downsizing paths will be explored. In the light of the literature survey, hiring and firing behaviour in enterprises, the internal composition of employment, a distinction between incumbent workers and new hires seem to be of particular importance, as are the choices of wage or employment cuts open to downsizing firms.

From this research we expect to be able to provide a set of "stylised facts" on how candidate countries have adjusted to different labour demand and supply shocks in the past and which can be compared to labour market dynamics in the EU member states. Furthermore, different adjustment mechanisms (changes in participation rates, migration, wage and unemployment changes) in the labour markets of selected transition countries will be analysed in detail, with particular emphasis on the problems of different labour market groups.

As has been repeatedly stressed in this literature survey, adjustment mechanisms may be endogenous to integration. For this reason we use two further experiences of integration to identify such potential changes.

1. We will look at East German integration. Our main focus will be migration. We will focus on the individual motives for east and west migration and commuting after German unification by modelling migration and commuting as an investment in human capital. A probit regression model derived from these theoretical considerations will be used. Furthermore, we will estimate the economic consequences of migration and commuting on home labour markets in Eastern Germany by deriving theoretical hypotheses for the empirical analysis from the "brain drain" literature and theories of regional agglomeration.

2. We will analyse regional development in border regions. Regional data will be used for an assessment of the consequences of cancelling the border within Germany, opening the border to candidate countries and previous enlargements. We focus on whether the regions on the eastern side of the border experienced a labour cost advantage and whether this locational advantage has been transformed into positive regional economic development. In the analysis, the specific industrial compositions of the regions will be taken into account in order to identify shocks from the transition process. This work will allow us to address the different impact of local wage consequences on skilled and unskilled workers.

Literature

Abowd, JohnM., Patrick Corbel, and Francis; Kramarz (1999) The Entry and Exit of Workers and the Growth of Employment: An Analysis of French Establishments, Review of Economics and Statistics; 81(2), pp 170-87

Abraham, Filip (1996) Regional Adjustment and Wage Flexibility in the European Union, Regional Science and Urban Economics, Vol. 26, pp. 51 – 75

Abraham, Arpad and Gabor Kezdi (2000) Long Run Trends in Earnings and Employment, 1972 - 1996, Budapest Working Papers on the Labour Market, BWP 2000/2

Aghion Phillipe and Oliver J. Blanchard (1993) On the Speed of Transition in Central and Eastern Europe, European Bank, Working Paper No. 6, July

Alecke, Björn; Peter Huber and Gerhard Untiedt (2001) What A Difference A Constant Makes – How Predictable are International Migration Flows? in (J.P. Garcon ed.) Proceedings of The seminar on: Recent developments in migration and the labour market in Central and Eastern Europe in the context of the EU enlargement, OECD, Paris.

Alecke, Björn and Gerhard Untiedt (2000) Pendlerpotential in der Grenzregion an der EU-Aussengrenze, Methoden, Ergebnisse und Prognosen, Preparity, Forschungsprogramm zu Deutschland, Ifo Dresden, Gefra, Münster

Andreff, W., 1999, 'Nominal and Real Convergence – At What Speed?', in: J. van Brabant (ed.), Remaking Europe: The European Union and the Transition Economies, Rowman and Littlefield, Boulder.

Aslund, Anders; Peter Boone, Simon Johnson (1996) How to Stabilize: Lessons from Post-communist Countries, Brookings-Papers-on-Economic-Activity; 0(1), pages 217-91

Baddeley, Michelle, Ron Martin and Peter Tyler (2000) Regional Wage Rigidity: The European Union and United States Compared, Journal of Regional Science, pp 114 – 142

Baldwin, Richard E.(1994) 'Towards an Integrated Europe', CEPR, London.

Bachtler , John (1992) Regional problems and Policies in Central and Eastern Europe, Regional Studies, S 665 – 671

Baldwin, Richard E. (1995) The Eastern Enlargement of the European Union, European Economic Review, pp. 474 – 481

Basu, Swati; Saul Estrin and Jan Svenar (1995) Employment and wage Behaviour of enterprises in transitional economies, Working Paper 114, The William Davidson Institute, Ann Arbor

Basu, Swati; Saul Estrin and Jan Svenar (1995) Employment and wage Behaviour of enterprises in transitional economies : the cases of Poland and Czechoslovakia, Economics of Transition, pp 271 - 287

Boltho, Andrea et al (1997) Will East Germany become a Mezzogiorno, Journal of Comparative Economics, Vol. 24 S 241 - 264

Barjak, Franz and Gerhard Heimpold (1999) Development Problems and Policies at the German Border with Poland – regional Aspects of Trade and Investment, Paper Presented at the ERSA Conference, Vienna

Bayoumi, Tamim and Barry Eichengreen (1992) Shocking Aspects of Monetary Unification, NBER Working Paper No 3949, NBER.

Bean, Charles R (1994) European Unemployment: A Survey, Journal of Economic Literature, pp 573 – 619

Belke, Ansgar and Martin Hebler (2002) EU -Osterweiterung Euro und Arbeitsmärkte, R. Oldenburg, Munich, Vienna

Bell, Unna-Louise (2001) Labour Reallocation During transition: The Case of Poland, ZEW Discussion Paper No. 01-38, ZEW, Mannheim.

Bentolila, Samuel and Juan F. Jimeno (1995) Regional Unemployment Persistence (Spain 1976 – 94) CEPR Discussion Paper No 1259, CEPR, London.

Berg, A., E. Borensztein, R. Sahay, J. Zettelmeyer, 1999, 'The Evolution of Output in Transition Economies; Explaining the Differences', International Monetary Fund, Working Paper, No. 99/73.

Berger, Mark; John S. Earle and Klara Sabirianova (2001) Worker Training in a Restructuring Economy: Evidence from the Russian Transition, IZA Discussion Paper No. 361, IZA, Bonn

Bird, Edward; Johannes Schwarze and Gert Wagner (1994) Wage effects of the move toward free markets in East Germany, Industrial and Labour Relations Review, pp 390 –400.

Blanchard, Olivier and Lawrence F. Katz (1992) Regional evolutions, Brookings Papers on Economic Activity, 1, pp. 1-75.

Blanchard, Olivier and Pedro Portugal (1998) What hides behind an Unemployment Rate: Comparing Portuguese and U.S. Unemployment, NBER Working Paper 6636.

Blanchflower, David G. and Andrew J. Oswald,-Andrew-J (1994) The wage curve, Cambridge and London: MIT Press,

Boeri, Tito (2001) Transition with Labour Supply, IZA discussion Paper No. 257, Bonn

Boeri, Tito (2000) Structural Change Reallocation and Income Support, Oxford University Press

Boeri, Tito (1997) What Can We Learn from the Experience of Transitional Economies with Labour Market Policies, Working Paper No. 86, The William Davidson Institute, Ann Arbor

Boeri, Tito (1995) Labour market Flows and the Scope of Labour Market Policies in Central and Eastern Europe, Paper Presented at the OECD technical Workshop on What can we learn from the experience of transition countries with labour market policies, Vienna 30[h] November

Boeri, Tito; Michael Burda and Janos Köllö (1998) Mediating the Transition: Labour Markets in Central and Eastern Europe, EPI Report No. 4: CEPR, London

Boeri, Tito and Christopher Flinn (1997) Returns to Mobility in the Transition to a Market Economy, The William Davidson Institute At the University of Michigan Business School, Working Paper No. 106

Boeri, Tito and M. Keese (1992) Labour Markets and the Transition in Central Eastern Europe, OECD Economic Studies, No. 18

Boeri, Tito and Stefano Scarpetta (1996) Regional mismatch and the transition to a market economy, Labour Economics, 3, pp. 233 – 254

Boeri, Tito and Katherine Terrel (2002) Institutional Determinants of Labor Reallocation in Transition, Journal of Economic Perspectives, pp 51 – 76.

Bonin, Holger and Rob Euwals (2001) Participation Behavior of East German Women after German Unification, IZA Discussion Paper 413, IZA, Bonn

Bonin, Holger and Klaus F. Zimmermann (2000) The Post - Unification German Labour Market, IZA Discussion Paper 185, IZA, Bonn.

Boone, Laurence and Mathilde Maurel (1998) Economic Convergence of the CEECs with the EU, CEPR Discussion Paper 2018, Centre for Economic Policy Research, London

Boone, Laurence, Mathilde Maurel and Ian Babetski (2002) Exchange Rate Regimes and Supply Shocks Asymmetry: The case of the Accession Countries, manuscript, CNRS – ROSES, Paris

Borjas, George J. (1999) The Economic Analysis of Immigration, in Ashenfelter, Orley; Card, David, eds. Handbook of Labor economics. Volume 3A. Handbooks in Economics, vol. 5. Amsterdam; New York and Oxford: Elsevier Science, North-Holland, 1999, pages 1697-1760.

Bosca, J.R., R. Domenech and D. Taguas (1998) La Politica Fiscal en la Union Economica y Monetaria, mimeo

Bosco M.G. and L. Resmini (2002) Border regions in Candidate Countries: Comparative Facts and Figures, Manuscript; University of Milan

Brakman, Steven, Harry Gerrtsen and Marc Schramm (1999) Ten years after Unification: East Germany and the relevance of modern theories of trade, location and growth, manuscript, University of Groningen

Brada, Joseph C and A.E. King (1992) Is there a J - Curve for the economic transition from Socialism to capitalism?, Economics of Planning, pp 37-53

Brändle, Phillip (1994) Regional Convergence in the European Union, Manuscript

Brenton, Paul and Francesca Di Mauro (1998) "Is there Any Potential in Trade in Sensitive Industrial Products Between the CEECs and the EU?", World Economy, 21, pp. 285-304

Brenton, Paul; Francesca Di-Mauro, and Matthias Lucke (1999) Economic Integration and FDI: An Empirical Analysis of Foreign Investment in the EU and in Central and Eastern Europe, Empirica; 26(2), 1999, pp 95-121.

Brenton, Paul and Daniel Gros (1997) Trade Reorientation and Recovery in transition Economies, Oxford Review of Economic Policy, pp. 65 – 76

Brenton, Paul; John Sheehy, and Marc Vancauteren (2001) Technical Barriers to Trade in the European Union: Importance for Accession Countries, Journal of Common Market Studies; 39(2), pp. 265-84

Breuss (2001) Macroeconomic Effects of EU Enlargement for Old and New Member states, WIFO – Working Papers No. 143, Austrian Institute for Economic Research, Vienna

Bucek, Milan (1999) Regional Disparities and Regional Dynamics in Slovakia: A Pre Accession Picture, Paper presented at the meeting of the European Regional Science Association, Dublin

Burda, Michael (1998) The Consequences of EU – Enlargement for Central and Eastern European Labour Markets, CEPR Discussion Paper No. 1881

Burda, M. (1995), Migration and the Option Value of Waiting, Economic and Social Review, pp. 1-19.

Burda, M. (1993), The Determinants of East-West-Migration: Some First Results, European Economic Review, 452-61.

Burda, M., W. Härlde, M. Müller, A. Werwatz (1998), Semiparametric Analysis of German East-West Migration Intentions: Facts and Theory, Journal of Applied Econometrics 13, 525-41.

Burda, Michael C. and Profit Stefan (1996) Matching Across Space: Evidence on Mobility in the Czech Republic, Labour Economics, 3, pp. 233 - 254.

Burda, Michael C. and Christoph M. Schmidt (1997) Getting Behind the East – West (German) Wage Differential: Theory and Evidence, Working Paper Number 105, William Davidson Institute, Ann Arbor

Büttner, Thiess (2000) Regional Labour Markets and regional Mobility in Germany, Paper presented at the ZEI Workshop Regional Development and Policy in Europe.

Büttner, Thiess (1999) The effect of unemployment, aggregate wages and spatial contiguity on local wages: An investigation with German district level data, Papers in Regional Science, 78, pp 47 – 67.

Calmfors, Lars (2001) Unemployment, Labour Market Reform and Monetary Union, Journal of Labour Economics, vol. 9, 2001

Campos, N. and F. Coricelli, 2002, 'Growth in Transition: What We Know, What We Don't and What We Should', Centre for Economic Policy Research, Discussion Paper, No. 3246.

Canova, Fabio and More O. Ran (2000) The Macroeconomic Effects of German Unification: Real Adjustments and the Welfare State, Universitat Pompei Fabra

Card, David (1995) The Wage Curve: A Review, Journal-of-Economic-Literature; 33(2), pp. 785-99.

Chadha, B; F. Coricelli, K. Krajnyak: (1993) Unemployment and Growth in a Transition Economy, IMF Staff Papers, pp 744-780.

Chase, Robert S (2000) Labour market Discrimination During post-Communist Transition: Monopsony Approach to the Status of Latvia's Russian Minority, William Davidson Institute of Transition Economics, Working paper No 381, Ann Arbor, September 2000

Chase, Robert S (1997) Markets for communist human capital: returns to education and experience in post communist Czech Republic and Slovakia, Working Paper 81, The William Davidson Institute, Ann Arbor.

Christoffersen, P. and P. Doyle, 1998, 'From Inflation to Growth: Eight Years of Transition', International Monetary Fund, Working Paper, No. 98/100.

Cukierman, Alex and Francesco Lippi (2001) Labour Markets and Monetary Union: A Strategic Analysis, The Economic Journal, pp. 541- 565

Clark, Kim B. and Lawrence H. Summers (1979) Labor Market Dynamics and Unemployment: A Reconsideration, Brookings Papers on Economic Activity; 1(79), pp 13-60.

Commander, Simon and Sumana Dhar (1998) Enterprises in Polish transition, In S Commander (ed.) Enterprise Restructuring and unemployment in models of Transition, The World Bank, Washington D.C.

Commander, Simon and John Mc Hale (1995) Labor markets in the Transition in East Europe and Russia, A review of Experience, World bank, Wahington D.C.

Crozet, Mattieu and Pamina Koenig-Soubeyran (2002) EU - Enlargement and Industrial Relocation within the CEEC's, Manuscript, Crest

Curtis, Simon (1992) Does Industrial Diversity always reduce Unemployment? Evidence from the Great Depression", Economic Enquiry, Vol XXX, April, pp 384 - 397

Daly, Michael and Hiroaki Kuwahara (1999) Tariff and non- tariff barriers to trade in Hungary: The impact of the Uruguay Round and EU-Accession, The Economics of Transition, pp 717 – 740.

Damijan, Joze and Crt Kostevc (2002a) "The Impact of European Integration on Regional Wages in Transition Countries", in Traistaru, I., P. Nijkamp and L. Resmini, *The Emerging Economic Geography in EU Accession Countries*, Ashgate Publishing Ltd., Aldershot, forthcoming

Damijan, Joze and Crt Kostevc (2002b) "The Emerging Economic Geography in Slovenia", in Traistaru, I., P. Nijkamp and L. Resmini, *The Emerging Economic Geography in EU Accession Countries*, Ashgate Publishing Ltd., Aldershot, forthcoming

Davis, Steven J and John Haltiwanger, Gross Job Flows in Ashenfelter, Orley and David Card, Handbook of Labour Economics, Volume 3, Elsevier Science. pp. 2711 - 2805

Decressin, J and A. Fatas (1995) Regional Labour Market Dynamics in Europe, European Economic Review, pp 1627 – 55.

Delhey, Jan (2001) The prospects of Catching up for New EU Members, Lessons for the Accession Candidate Countries to the European Union from Previous Enlargements, WZB Research Paper FSIII 01 – 403, Wissenschaftszentrum Berlin, Berlin

De la Fuente Angel and Xavier Vives (1995) Infrastructure and education as instruments of regional policy: Evidence from Spain, Economic Policy, pp.11 -51

De la Fuente A (1996) On the Sources of Convergence: A close look at the Spanish Regions, CEPR Discussion Paper 1543

De la Fuente, Angel (2002) Regional Convergence in Spain, CEPR Discussion Paper No. 3137, CEPR, London

De Broer Paul.M. C., Carlos Martinez and R. Harkema (2000) Trade Liberalization and the allocation over domestic and foreign supplies: a case study for Spanish manufacturing, Applied Economics, pp 789 – 799

De Broer Paul.M. C., Carlos Martinez (1999) Spanish Imports of Manufactures and the European Union: An Empirical assessment of Entry, Applied Economics, pp 789 - 799

Delaigle, Sophie and Oliver Lohest (1999) Regional Labour market Dynamics: Evaluation and Application to Belgium, Manuscript, Universite Catholique de Louvain

De Melo, M., C. Denizer, A. Gelb and S. Tenev, 1997, 'Circumstance and Choice. The Role of Initial Conditions and Policies in Transition Economies', Worl Bank, Policy Research Working Paper, No. 1866.

Di Mauro, Francesca (2001) Economic Integration between the EU and the CEECs: A sectoral Study, CEPS Working Document No. 165, CEPS, Brussels

Di Mauro, Francesca (2000) The Impact of Economic Integration on FDI and Exports: A Gravity Approach, CEPS Working Document No. 156, CEPS, Brussels

Dorenbros, Ruud (1999) Labour market Adjustments in Hungary and Poland, Labyrint Publications, Capelle a/d Ijssel, Netherlands

Dostal, Petr (1999) Foreign direct Investment and Regional Development in the Czech Republic, Manuscript, Karlsuniversität, Prag.

Dostal, Petr und Martin Hampl (1994) Changing Economic Base of Prague: Towards new organizational dominance, in Barlow, Max; Petr Dostal und Martin Hampl (Hrsg.) Development and administration of Prague, Instituut voor Sociale Geographie, Amsterdam

Duffy, Fiona and Patrick Paul Walsh (2001) Individual pay and Outside options: Evidence from the Polish Labour Force Survey, IZA Discussion Paper No.295, IZA, Bonn.

Earle, J. S., and G. Oprescu. 1993. Employment and wage determination, unemployment and labour market policies in Romania. Paper prepared for the World Bank Conference on Unemployment, Restructuring and the Labour Market in East Europe and Russia, October.

Earle John and Catalin Pauna (1996). Incidence and duration of unemployment in Romania', European Economic Review, Vol. 40.

Eichengreen, Barry (1998), "European Monetary Unification: a Tour d'Horizon." Oxford Review of Economic Policy 14, 3:24-40, Autumn 1998.

Eichler, Martin and Michael Lechner (2000) some econometric Evidence on the Effectiveness of Active Labour market Programmes in East – Germany, Working Paper No 318, William Davidson Institute, Ann Arbor

Emerson, Michael and Danial Gros (1998) Impact of Enlargement Agenda 2000 and EMU on Poorer Regions – The Case of Portugal, CEPS Working Document No. 125, Brussels

Estrin, Saul and Jan Svejnar (1998) The effects of Output, Ownership and legal form on employment and wages in Central European Firms, In S Commander (ed.) Enterprise Restructuring and unemployment in models of Transition, The World Bank, Washington D.C.

European Commission (2002) The Danube Region Study, Brussels, Commission of the European Communities

European Commission (2001) Second report on Economic and Social Cohesion, Brussels, Commission of the European Communities

European Commission (1997) Commission Opinion on the Czech republics Application for Membership of the European Union, Brussels, Commission of the European Communities

European Integration Consortium (2001) The Impact of Eastern Enlargement on Employment and Labour Markets in the EU Member States, Employment and social affairs, Brussels

Eurostat (2001) Beschäftigung und Arbeitsmarkt in den Ländern Mitteleuropas, 1/2001, Brüssel

Eurostat (2001a) Beschäftigung und Arbeitsmarkt in den Ländern Mitteleuropas, 2/2001, Brüssel

Eurostat (2000) Beschäftigung und Arbeitsmarkt in den Ländern Mitteleuropas, 2/2000, Brüssel

EPRC (2001) The Impact of EU Enlargement on Cohesion, European Policies Research Centre, Berlin and Glasgow

Fagerberg, J. and Verspagen B. (1996) Heading for Convergence or Divergence? Regional Growth in Europe Reconsidered, Journal of Common Market Studies, Vol. 34, pp. 432 – 448

Fagio, Giulia and Jozef Konings (2001) Job Creation, Job Destruction and Employment Growth in Transition Countries in the 1990's, IZA Discussion Paper No. 242, IZA, Bonn

Faini, Riccardo et al (1997) An Empirical Puzzle: Falling Migration and growing unemployment differentials among Italian regions, European Economic Review, Vol. 41, pp. 571 – 579.

Fainshtein, Grigory. and Natalie Lubenets (2002) "The Emerging Economic Geography in Estonia", in Traistaru, I., P. Nijkamp and L. Resmini, *The Emerging Economic Geography in EU Accession Countries*, Ashgate Publishing Ltd., forthcoming

Fatas, Antonio (2000) Intranational labor Migration Business Cycles and Growth, in Gregory D. Hess and Eric van Wincoop Intranational Macroeconomics, Cambridge Cambrige University Press

Fazekas, Karoly (2000) The Impact of foreign direct investment inflows on regional labour markets in Hungary, Budapest Working Paper on the Labour Market, Hungarian Academy of Sciences, Budapest.

Fazekas, Karoly (1996) Types of Microregions, Dispersion and Local Employment Development in Hungary, Eastern European Economics, pp 3 – 48.

Feldmann, Hannes (1999) Zehn Jahre EU – Sozialcharta, in Wirtschaftsdienst 79 pp. 670 – 679

Fertig, Michael and Christoph M. Schmidt (2001) Aggregate-Level Migration Studies as a Tool for Forecasting Future Migration Streams in Slobodan Djajic (ed.), International Migration: Trends, Policy and Economic Impact, London/New York (2001), 110-136)

Fidrmuc, Jan (2001) Adjustment to Shocks via Inter-regional Labour Mobility: Evidence from the Czech and Slovak Republics Manuscript Center for European Integration Studies (ZEI), University of Bonn, und Centraal Planbureau, The Hague,

Fidrmuc, Jan, Julius Horvath, and Jarko Fidrmuc (1999), "Stability of Monetary Unions: Lessons from the Break-up of Czechoslovakia," Journal of Comparative Economics **27** (December), 753-781.

Fidrmuc, Jan and Peter Huber (2002) The Puzzle of Rising Regional Disparities and Falling Migration Rates during Transition, manuscript, WIFO, Vienna

Fidrmuc, Jarko; Peter Huber and Jan Jakub Michalek (2001) Poland's Accession to the European Union: Demand for Protection of Selected Sensitive Products, MOCT-MOST: Economic Policy in Transitional Economies; 11(1), 2001, pages 45-67.

Fink, Gerhard (2000) Trade Protection in Five EU-Member Candidate Countries by Exchange Rate Adjustment, Customs Tariffs and Non-Tariff Measures, in Heinz Handler (ed.) Eastern Enlargement the Sooner The Better?, Austrian Ministry for Economic affairs and Labour, Vienna

Fischer, Stanley und Ratna Sahay (2000) The transition Economies after 10 years, NBER Working Paper 7664, National Bureau of Economic Research, Cambridge, MA

Fischer, Stanley; Ratna Sahay und Carlos Vegh (1997) From Transition to Market: Evidence and Growth prospects, in Zecchini (eds.) Lessons from Economic Transition, Kluwer academic Publishers, S 79 - 101

Fischer, Stanley; Ratna Sahay und Carlos Vegh (1996) Stabilization and Growth in Transition Economies: The early Experience, Journal of Economic Perspectives, Vol 10, No. 2, Spring, S 45 - 66

Fischer, Stanley; Ratna Sahay und Carlos Vegh (1996a) Economies in Transition to Market: The beginnings of Growth, American Economic Association Papers and Proceedings, Vol. 86, No. 2, S 229 –233

Fredrikson, Peter (1995) The Dynamics of Regional Labour Markets and Active Labour Market Policy: Swedish Evidence, manuscript, University of Upsala

Freeman, R.B. (1994) What Direction for Labor Market Institutions in Eastern Central Europe? in Blanchard O.J and J.D. Sachs The Transition in Eastern Europe Volume 2: Restructuring, Chicago and London, University of Chicago Press.

Gacs, Janos (Coord.) (1999) Strukturpolitik und Raumplanung in den Regionen an der mitteleuropäischen EU-Außengrenze zur Vorbereitung auf die EU – Osterweiterung, Teilprojekt 2, Macroeconomic Developments in the Candidate Countries with respect to the accession Process, WIFO, Wien

Galasi, Peter (1999) Job Search Behaviour of the Hungarian Unemployed, manuscript, Budapest University of Economics, Budapest

Guichard and Laffargue (2000) The Wage Curve: The Lessons of an Estimation over a Panel of Countries, CEPII, Document de Travail No 2000-21

V. Gligorov: Gradual Shock Therapy, Institute for Advanced Studies Working Papers, East European Series No.1, 1994

Golinelli, Roberto and Renzo Orsi (1998) testing for Structural Change in Co-integrated Relationships, manuscipt, University of Bologna, Bologna

Gora, Marek (1997) Central and Eastern European Labour Markets in Transition, in Zecchini (ed.) Lessons from Economic Transition, Kluwer, Dodrecht., p 76 – 95

Gora, Marek (1995) The Labor Market in Poland, Eastern European Economics , p 76 - 95

Gora Marek and Hartmuth Lehmann (1992) Flow and Stock Analysis of Polish Unemployment: January 1990 - June 1991, Labour, 1992, pp 87 -115

Gora, Marek and Hatmut Lehmann (1995) Divergent Regional Labour market Adjustment, in Köhler, Annette, Karl Heinrich Oppenländer and Günter Poser eds, Selected papers submitted to the Ciret Conference 1995, Ciret, Munich, pp 227 - 282

Gorzelak G. (1996) The regional Dimension of Transformation in Central Europe, Regional Studies Association, London

Gros, Daniel (2002) Health not Wealth, Paper Presented on the WIFO Conference "Economic Policy in the 21st Century" Vienna 24th January

Gros, Daniel (2000) EMU, the Euro and Enlargement, manuscript, CEPS, Brussels.

Grosfeld Irena and Jean Francois Nivet (1997) Firms heterogeneity in Transition – evidence from a micro Study, Working Paper No. 47 The Williamson Davidson Institute, Ann Arbor

Hall, Robert E. (1998) Labour Market Frictions and Employment Fluctuations, NBER Working Paper No. 6501

Haltiwanger, John C. and Milan Vodopivec (1999) Gross Worker Flows in a Transition Economy: An Analysis of Estonia, Manuscript, University of Maryland

Ham, John C.; Jan Svenar and Katherine Terrel (1999) Womens unemployment during transition Evidence from Czech and Slovak Micro data, Economics of Transition, pp. 47 – 78.

Ham J., Svejnar J. and Terrell K. (1995) Czech republic and Slovakia, in (Commander, S. and Coricelli, F.) Unemployment, Restructuring, and the labour Market, in Eastern Europe and Russia, The World Bank, Washington D.C., pp. 91 - 146.

Hamilton (1973) Decision Making and Industrial Location in Eastern Europe, in Blunden J. e.a. (ed.) Regional Analysis and Development, Open University Press, (London, New York 1973)

Hanson, Gordon H. (1998) North American Economic Integration and Industry Location, NBER Working Paper No. 6587, National Bureau of Economic Research, Cambridge, MA

Havrylyshyn, O., I. Izvorski and R. van Rooden, 1998, 'Recovery and Growth in Transition Economies 1990-1997: A Stylized Regression Analysis', International Monetary Fund, Working Paper, No. 98/141.

Heitger, Bernhard (2001) Minimum wages and Employment: The Case of German Unification, Kiel Working Paper No. 1045, Kiel Institute of World Economics, Kiel

Herzog, Henry W Jr. (2000) Plantscale, Industry, Agglomeration and the Outllook for Regional Employment in Central European Economies, Journal of Regional Science, pp 499 – 522.

Horvath, Julius (2002) Supply and Demand Shocks in Europe: Large EU-4 Members, Visegrad-5 and Baltic-3 Countries, Manuscript, Central European University, Budapest.

Huber Peter (2002) Labour Market Adjustment in Candidate Countries some stilysed facts, manuscript, WIFO, Vienna

Huber, Peter and Gerhard Palme (2001) Teilprojekt 3: Regionalwirtschaftliche Entwicklung in den MOEL, in Peter Mayerhofer and gerhard Palme, Strukturpolitik und Raumplanung in den Regionen an der mitteleuropäischen EU Außengrenze zur Vorbereitung auf die EU – Osterweiterung, WIFO, Vienna, 2000

Huber, Peter and Andreas Wörgötter (1999) Local Unemployment Dynamics in Transition: A Comparison of three Countries, in G.R. Crampton (ed.) European Research in Regional Science, Pion, London

Huber, Peter and Pavol Ochotnicky (1995) Problems of Local Labor Markets Dominated by large Enterprises in The regional Dimension of Unemployment in Transition Economies", OECD, Paris, 1995

Hunt, Jennifer (2002) The transition in East Germany: When Is a Ten-Point Fall in the Gender Wage Gap Bad News, Journal of Labour Economics, pp 148 – 169Huber P. (1995) Stylised Facts of New Enterprise Formation in Central and Eastern Europe - How Different are the Czech and Slovak Republics, Institut für Höhere Studien, East European Series No. 27.

IBO (2000) The financing of EU structural policy in the context of enlargement of the EU, The Hague

IMF (2000) World Economic Outlook. Focus on Transition Economies, International Monetary Funds, Washington.

Jurajda, Stepan and Katherine Terrel (2002) What Drives the Speed of Job Reallocation During Episodes of Massive Adjustment, CEPR Discussion Paper 3218

Jurajda, Stepan and Katherine Terrel (2000) Optimal Speed of Transition: Micro Evidence from the Czech Republic, Wiliam Davidson Institute of Transition Economics, Working paper No 355, Ann Arbor, December

Kaczmarczyck, Pawel and Marek Okolski (2002) From Net Emigration to Net Immigration – Socio – Economic Aspects of Internal Population Movements in Poland, in Rotte, Ralph and Peter Stein, Migration Policy and the Economy: International Experiences, Hans Seidel Stiftung, Studies and Comments 1, Munich

Kallai, Ella und Iulia Traistaru (1999) Characteristics and trends of Regional labour Markets in Transition Economies: Empirical Evidence from Romania, Manuscript, Zentrum für Europäische Integration, Bonn

Keane, Michael P. and Eswar S. Prasad (2002) Inequality, Transfers and Growth: New Evidence from the Economic Transition in Poland, IZA – Discussion Paper No. 448, IZA, Bonn

Kertesi, Gabor und Janos Köllö (2001) Unemployment, Wage Push and the Labour Cost Competitiveness of Regions – The Case of Hungary,

Kertesi, Gabor and Köllö, Janos (2000) Wage Inequality in East Central Europe, Budapest Working Papers on the Labour Market, BWP 2000/7

Kertesi, Gabor and Janos Köllö (1997) Wages Inequalities in Hungary 1986 – 1996, manuscript, Hungarian academy of Sciences, Budapest.

Kertesi, Gabor and Janos Köllö (1995) Wages and Unemployment in Hungary 1986 – 1994, ILO – Japan Project, ILO, Budapest.

Keuschnigg, C. and W. Kohler (1998), Eastern Enlargement of the EU: How Much Is It Worth For Austria? CEPR Working Paper No. 1786, London

Kluve, Jochen; Hartmut Lehmann and Christoph M.Schmidt (2001) Disentangling Treatment Effects of Polish Active Labour Market Policies: Evidence from Matched Samples, IZA Working Paper 355, Bonn

Knogler, Michael (2001) Die Arbeitsmärkte der Beitrittskandidaten vor dem Hintergrund der EU Osterweiterung, Working Paper Nr 228, Osteuropa Institut München.

Kocenda, Evzen (1999) Limited Macroeconomic Convergence in transition Countries, CEPR Discussion Paper 2285, Centre for Economic Policy Research, London

Kornai, Janos (1994) Transformational Recession: The Main Causes, JCE, Vol.19, No.1, pp 39-63

Kornai, Janos (1989) The Road to a Free Economy, Norton and Company, New York

Köllö, Janos (2001) The patterns of non – employment in Hungary's least developed regions, Budapest Working Papers on the Labour Market 2001/1, Hungarian Academy of Science, institute of Economics, Budapest

Köllö, Janos (1997) Three Stages in Hungarys labour market Transition, In S Commander (ed.) Enterprise Restructuring and unemployment in models of Transition, The World Bank, Washington D.C.

Köllö, Janos and Gabor Kertesi (2001) Economic Transformation and the Revaluation of Human Capital - Hungary 1986 - 1999, Budapest Working Papers on the Labour Market, BWP 2001/14

Köllö, Janos and Gabor Kertesi (1999) Economic transformation and the Return to Human Capital, Budapest Working Papers on the Labour Market, BWP 1999/6

Köllö, Janos and Gyula Nagy (1996) Earnings gains and Losses from Insured Unemployment in Hungary, Labour Economics, pp 279 – 298.

Köllö, Janos and Maria Vicze (1999) Self Employment. Unemployment and Wages: Regional Evidence from Hungary and Romania, Budapest Working Papers on the Labour Market 1999/7, Hungarian Academy of Science, institute of Economics, Budapest

Konings, Jozef and Valntijn Bilsen (1997) Job creation, Job Destruction and Growth in Newly Established Private Firms in Transition Economies – Survey Evidence from Bulgaria, Hungary and Romania, The William Davidson Institute At the University of Michigan Business School, Working Paper No. 106

Konings, J., O. Kupets and H. Lehmann, (2002), 'Gross Job Flows in Ukraine: Exploring Some Cross-Sectional Differences', paper presented at a CEPR/ESRC workshop, EBRD, London, mimeo.

Konings, Jozef; Hartmut Lehmann and Mark E. Schaffer (1996) Job Creation and Job Destruction in a Transition Economy: Ownership, Firm Size, and Gross Job flows in Polish manufacturing 1988-91, Center of Economic Performance Working Paper, London

Körösi, G. (1997) Labour Demmand during Transition in Hungary, Working Paper No. 116, The William Davidson Institute, Ann Arbor

Kraus, Florian;Patrick Puhani and Viktor Steiner (1999) Employment Effects of Publicly Financed Training Programs--The East German Experience, Jahrbucher fur Nationalokonomie-und-Statistik; pp 216-48

Kroncke, Charles and Kenneth Smith (1999) The Wage Effects of Ethnicity in Estonia, Economics of Transition, pp 179 – 201.

Krueger, Alan B. and Jörg Steffen Pischke (1992) A Comparative Analysis of East and West German Labor Markets: Before and After Unification, Working Paper # 307, Industrial Relations Section, Princeton University, Princeton

Krugman, Paul (1991Geography and Trade, MIT Press, Cambridge

Lechner, Michael (1999) An Evaluation of Public-Sector-Sponsored Continuous Vocational Training Programs in East Germany, IZA Discussion paper No 93, IZA, Bonn

Lilien, David M. (1982) Sectoral Shifts and Cyclical Unemployment, Journal of Political Economy; 90(4), pp 777-93.

Lubyova, Martina (2002) Migration and Labour Mobility in A Multi-Country framework: An Examination of Bilateral Flows in EU and Associated Countries, Manuscript, Slovak Academy of Sciences, Bratislava

Lubyova, Martina and Jan C. van Ours (1999) Unemployment durations of job losers in labour markets in transition, Economics of Transition, pp. 665 – 686.

Lubyova, Martina and Jan van Ours (1997) Jobs from Active Labour market Policies and their Effects on Slovak Unemployment, Paper Presented at the Conference on Labour Markets in Transition Economies, October 17 – 19, 1997

Marelli, Enrico (1999) Convergence and Asymmetries in the Employment Dynamics of European Regions, manuscript, Brescia

Martin, Ron (2001) EMU versus the Regions, Regional Convergence and divergence in Euroland, Journal of Economic Geography, pp. 51 – 80

Martin, Carmela; Francisco J. Velazquez (1997) The Determining Factors of Foreign Direct Investment in Spain and the Rest of the OECD: Lessons for CEECs, Centre for Economic Policy Research Discussion Paper: 1637, CEPR, London

Mauro, Pablo and Antonia Spilimbergo (1999) How do the Skilled and the Unskilled Respond to Regional Shocks? The Case of Spain, IMF Staff Papers, pp 1 -17

Mayerhofer, Peter and Gerhard Palme (2001) Strukturpolitik und Raumplanung in den Regionen an der mitteleuropäischen EU-Außengrenze zur Vorbereitung auf die EU – Osterweiterung, Teilprojekt 15, Wirtschaftspolitische Empfehlungen, WIFO, Vienna

Mayo, Stephen K. and James I. Stein (1995) Housing and Labor Market Distortions in Poland: Linkages and Policy Implications, Journal of Housing Economics, pp 153 – 182.

Mayr, Klaus (2001) Einfluss des Gemeinschaftsrechts auf das Österreichische Arbeitsrecht, WISO, S 115 – 139.

Mickiewicz, Tomasz (2001) Convergence in Employment structures: Transition Countries versus the EU, in K Liuthu (Ed.) Ten Years of Economic Transition, Lappeenranta University of Technology, Vol. III, Lappeenranta, pp 41 - 67

Mickiewicz, Tomasz (1999) Convergence versus Rapid Deindustrialisation: Restructuring of Employment in Central Europe, Paper presented at the Workshop on Regional development Policy, Zentrum für Europäische Integration, Bonn, Manuscript, SSEES/ University College, London.

Mickiewicz, Tomasz and Janice Bell (2000) Unemployment in Transition, Harwood Academic Publishers, Amsterdam

Mickiewicz, Tomasz and Anna Zalewska (2002) Deindustrialisation. Lessons from the Structural Outcomes of Post-Communist Transition, William Davidson Institute, University of Michigan, Working Paper, No. 463.

Mickiewicz, Tomasz and Anna Zalewska (2001) Deindustrialisation and Structural Change During the Post-Communist Transition, William Davidson Institute, University of Michigan, Working Paper, No. 383.

Micklewright, John (1999) Education Inequality and transition, Economics of Transition, 1999, pp 343 – 376

Micklewright, John and Gyula Nagy (1995) Unemployment Insurance and Incentives in Hungary, CEPR Discussion Paper No. 1118

Micklewright, John and Gyula Nagy (1999) Living Standards and Incentives in Transition: The implications of unemployment Insurance exhaustion in Hungary, CEPR Discussion Paper No. 2061

Micklewright, John and Gyula Nagy (1995a) The Implications of Exhausting Unemployment Insurance Entitlement in Hungary, UNICEF Discussion Paper No. 58

Micklewright, John and Gyula Nagy (1995b) Evaluating Labour market Policy in Hungary, paper presented at the OECD Technical Workshop on What can we learn from the experience of transition countries with labour market policies, Vienna 30.11. – 2.12 1995

Milanovic, Branko (2001) Inequality During the Transition: Why Did it Increase? in Oleh Havrylyshyn and Saleh M. Nsouli, A Decade of Transition: Achievements and Challenges, IMF, Washington D.C., pp. 251 -267

Milanovic, Branko (1999) Explaining the increase in inequality during transition, Economics of Transition, pp 299 – 342

Mundell, Robert A. (1961) A Theory of Optimum Currency Areas, American Economic Review, pp 657 – 665

Munich, Daniel; Jan Svejnar and Katherine Terrel (2000) Returns to Human Capital under the Communist Wage Grid and During the Transition to a Market Economy, IZA Discussion paper No. 122, Bonn

Neumann G.R., Topel R.H. (1991) Employment Risk, Diversification and Unemployment" Quarterly Journal of Economics, November, pp 1341 – 1365

Newell, Andrew (2001) The Distribution of Wages in Transition Countries, IZA Discussion Paper No. 267, Bonn

Newell, Andrew and Franceso Pastore (2000) Regional Unemployment and Industrial Restructuring in Poland, IZA Discussion Paper No. 194, IZA, Bonn

Nickell, S, L. Nunziata, W. Ochel and G. Quintini, 2001, "The Beveridge Curve, Unemployment and Wages in the OECD from the 1960s to the 1990s", Centre for Economic Performance, Discussion Paper, No 502.

Obstfeld and Peri (2000) Regional Adjustment and Fiscal Policy, in Gregory D. Hess and Eric van Wincoop "Intranational Macroeconomics, Cambridge Cambrige University Press

OECD (2001) OECD Employment Outlook, OECD, Paris 2001

OECD (1999) OECD Employment Outlook, OECD, Paris 1999

OECD (1998) Employment Outlook, OECD, Paris

O'Leary (1997) Preliminary Evidence on Active Labour Programs – Impacts in Hungary and Poland, Upjohn Institute for Employment Research, Staff Working Paper 98 - 50

Orazem, Peter F. and Milan Vodopivec (2000) Male - Female Differences in Labor Market outcomes during the Early Transition to market: The Case of Estonia and Slovenia, Manuscript, The World bank, Washington D.C.

Overmann Henry G. and Diego Puga (1999) Unemployment Clusters across European Regions and Countries, CEP Working Paper 99-03, CEP, London

Padoa, Fiorella and Schioppa Kostoris (1999) Regional Aspects of Unemployment in Europe and Italy, CEPR Discussion Paper No. 2108, CEPR, London

Perotti, Roberto (2001) Is a Uniform Social Policy Better? Fiscal federalism and Factor Mobility, American Economic Review, Vol. 91, No. 3 pp 596 – 610.

Petrakos, George (1999) The Spatial Impact of east – West Integration, in Petrakos (Ed.) Integration and Transition in Europe: the Economic Geography of Interaction, London, Routledge

Petrakos, George (1995) Patterns of Regional Inequality in Transition Economies, Manuscript, Department of Planning and Regional Development University of Thesaly, Greece

Pissarides, Christopher A. (1996) The Need for Labour Market Flexibility in European Economic and Monetary Union, Manuscript, London school of Economics

Pischke, Jörn-Steffen, Matthias Staat and Stefan Vögele (1994): Arbeitslosigkeit, Löhne oder Weiterbildung: Warum pendeln Ostdeutsche in den Westen? In: Heinz König and Viktor Steiner (eds.): Arbeitsmarktdynamik und Unternehmensentwicklung in Ostdeutschland, Baden-Baden: Nomos-Verlag.

Profit, St. (1999) Divergence in regional Unemployment: An Empirical Investigation of Job Matching in the Czech Republic, in G. Crampton (Ed.) Regional Unemployment, Job Matching and Migration, Pion, London, S 11-34

Puhani, Patrick A. (1999) Labour Mobility – an Adjustment Mechanism for Euroland?, Manuscript, ZEW, Manheim.

Puhani, Patrick A. (1998) Advantage Through Training? A Microeconometric Evaluation of the Employment Effects of Active Labour Market Programmes in Poland, Centre for Economic Policy Research Discussion Paper: 2000, CEPR, London

Puhani, Patrick A. (1996) Poland on the Dole – Unemployment benefits, training and Long-term Unemployment during Transition, ZEW Discussion Paper 96-30, Munich

Puhani, Patrick-A. and Viktor Steiner (1997) The Effectiveness and Efficiency of Active Labour Market Policies in Poland, Empirica; pp. 209-31.

Rédei, Mária (2001) "European integration, regional specialisation and location of industrial activity in Hungary", paper presented to the 41st Annual Congress of the European Regional Science Association, Zagreb, 29 August-1September, 2001

Resmini, Laura (2002) " Specialization and Growth Patterns in Border Regions in Accession Countries", ZEI Working Paper B02-17. forthcoming in Traistaru, I., P. Nijkamp and L. Resmini, *The Emerging Economic Geography in EU Accession Countries*, Ashgate Publishing Ltd.

Roland, Gerard (1994) The Role of Political Constraints in Transition Strategies, Economics of Transition, Vol. 2, 27 - 41, 1994

Roland, Gerard (1994) The Role of Political Constraints in Transition Strategies, Economics of Transition, Vol. 2, 27 - 41, 1994

Römisch, G (2001) Regional disparities Within accession Countries, Paper presented at the East-West Conference of the Oesterreichische Nationalbank, November 5th ad 6th, 2001

Rutkowski, Jan J. (1996) Changes in the Wage Structure during Economic Transition in Central and Eastern Europe, World Bank Technical Paper No. 340, World Bank, Washington D.C.

Sachs, Jeffrey (1996) The Transition at Mid Decade, American Economic Review, Vol. 86, May S 128 – 133.

Sachs Jeffrey (1992 The Economic Transformation of Eastern Europe, Economics of Planning, 1992, pp 5-19

Sachs, Jeffrey; David Lipton (1990) Creating a Market Economy in Eastern Europe: The Case of Poland, Brookings Papers of Economic Activity, pp 75-146

Saget, Catherine (1999) The determinants of female labour supply in Hungary, Economic of Transition, pp 575 – 593.

Scarpetta, Stefano (1995) Spatial Variations in Unemployment in Central and Eastern Europe, Underlying Reasons and Labour Market Policy Options, in The regional Dimension of Unemployment in Transition Countries, OECD/CCET

Scarpetta, Stefano and Peter Huber (1995) Regional Economic Structures and Unemployment in Central and Eastern Europe: An Attempt to Identify Common Patterns in Stefano Scarpetta and Andreas Wörgötter Eds. The Regional Dimension of Unemployment in transition Economies, OECD, Paris.

Scarpetta, Stefano and A. Reuterswald (1994) Unemployment Benefit systems and Active Labour Market Policies in Central and Eastern Europe: An Overview in Unemployment in Transition Economies Transient or Persisent, OECD, Paris

Schuhmacher, Dieter and Parvatti Trübswetter (2000) Volume and Comparative Advantage in East West trade, DIW Discussion Paper No. 223, Berlin

Siebert, Horst (1997) Labour Market Rigidities and Unemployment in Europe, Kiel Working Paper No. 787

Singer, Miroslav (1996) Dynamic labor demmand estimation and stability of coefficients – the case of the Czech Republic, Working Paper no 99, CERGE EI, Prague

Schwarze, J. (1996), Beeinflußt das Lohngefälle zwischen Ost- und Westdeutschland das Migrationsverhalten der Ostdeutschen? Allgemeines Statistisches Archiv, 50-68.

Selowsky, Marcelo und Ricardo Martin (1997) The Transition from Socialism: Policy Performance and Output Growth in transition Economies, AEA Papers and Proceedings, Vol. 87 No. 2, S 350 - 353

Sibley, Christopher W. and Patrick Paul Walsh (2002) Earnings Inequality and Transition: A Regional Analysis of Poland, IZA Discussion Paper 441, 2002

Sinn, Hans – Werner (2000) Germany`s Economic Unification An Assessment after ten Years, NBER Working Paper 7586, National Bureau of Economic Research, Cambridge, M.A.

Sinn, Hans Werner and Frank Westermann (2000) Two Mezzogiornos, Working Paper No. 378, CES ifo, Munich

Smith Adrian (1998) Restructuring the Regional Economy – Industrial and Regional Development in Slovakia, Studies of Communism in Transition, Edward Elgar, Cheltenham, UK

Spindrova; Julia (2002) "The Emerging Economic geography in Bulgaria", in Traistaru, I., P. Nijkamp and L. Resmini, The Emerging Economic Geography in EU Accession Countries, Ashgate Publishing Ltd., Aldershot, forthcoming

Steiner, Viktor and Patrick A. Puhani (1996) Die Entwicklung der Lohnstruktur im Ostdeutschen Transformationsprozess, ZEW Discussion paper 96 – 03, ZEW, Mannheim

Steiner, Viktor and Kersten Wagner (1997) East – West German Wage Convergence – How far have we got?, ZEW Discussion Paper 97-25, ZEW, Mannheim

Storm, Vit and Katherine Terrel (2000) Sectoral Restructuring and Labor Mobility: A Comparative Look at the Czech Reopublic, IZA Discussion Paper No 111, IZA, Bonn

Storm, Vit and Katherine Terrel (1997) Employment, Unemployment and Transition in the Czech Republic, Where have all the Workers Gone, manuscript, University of Michigan, Ann Arbor

Svejnar, Jan (1999) Labour Market in the Transitional Central and East European Economies, in Ashenfelter, Orley and David Card, Handbook of Labour economics, Volume 3, Elsevier Science. pp. 2810 – 2857

Szalavetz, Andrea (2001) Western Policy Lessons in the Second Phase of Regional Transformation, Working Paper 119, Institute for World Economics, Hungarian Academy of Sciences, Budapest

Szemler, Tamas (2000) Regional Development and the EU Pre-Accession and Structural Funds, Working Paper 110, Institute for World Economics, Hungarian Academy of Sciences, Budapest

Temprano – Arroyo, Helodoro and Robert A. Feldman (1999) Selected Transition and Mediterranean Countries: An Institutional Primer on EMU and EU Accession, Economics of Transition, pp. 741 – 806

Terrel, Katherine and Daniel Munich (1995) An Overview of Labour Market Policies in the Czech Republic, Paper presented at the OECD Technical Workshop, What can we learn from the experience of transition countries with labour market policies, November 30th - 2nd December, Vienna

Todaro, Michael P. (1969), "A Model of Labor Migration and Urban Unemployment in Less Developed Countries." *American Economic Review* **59** (1), 138-148.

Tondl G. (2001) Convergence after Divergence? Regional Growth in Europe, Springer, Wien New York

Totev, Stoyan (2000) Factors Determining Regional Unemployment and Labour Mobility in Bulgaria, Manuscript, Institute of Economics, Academy of Sciences, Sofia

Traistaru, Iulia and Carmen Pauna (2002) "The Emerging Economic Geography in Romania", in Traistaru, I., P. Nijkamp and L. Resmini, *The Emerging Economic Geography in EU Accession countries*, Ashgate Publishing Ltd., Aldershot, forthcoming

Traistaru, Iulia, Peter Nijkamp and Simonetta Longhi (2002) Regional Specialization and Concentration of Industrial Activity in Accession Countries, ZEI Working Paper B02-16, forthcoming in Traistaru, I., P. Nijkamp and L. Resmini, *The Emerging Economic Geography in EU Accession Countries*, Ashgate Publishing Ltd, Aldershot

Traistaru, Iulia and Guntram Wolff (2002) "Regional Specialization and Employment Dynamics in Transition Countries", ZEI Working Paper B02-18, , Center for European Integration Studies , University of Bonn

van Ours, Jan (2000) Do active Labor market Policies Help Unemployed Workers to Find and Keep Regular Jobs, IZA Working Papers No. 121, Bonn

Van Leuvensteijn, Michael and Ashok Parikh (2000) Wage Convergence and Migration: Lessons from Germany for EU-Enlargement, manuscript, CPB, The Hague

Van Poeck; Andre and Alain Borghijs (2001) EMU and the Labour Market Reform: Needs, Incentives and Realisations, World Economy; 24(10), pp 1327-52.

Vaughan – Whitehead, Daniel (1998) Wage Policy Reform in Central and Eastern Europe: A first Assessment, in Paying the Price: The Wage Crisis in Central and Eastern Europe, D. Vaughan – Whitehead ed, Great Britain, Macmillan Press, pp 13 – 81.

Wagner, M. and J. Hlouskova, 2002, 'The CEES10's Real Convergence Prospects', Centre for Economic Policy Research, Discussion Paper, No. 3318.

Wallace, Claire and Dariusz Stola (2001) Patterns of Migration in Europe, Palgrave, New York

Welfe, Aleksander, Robert Kelm and Michal Majsterek (2002) Inflation in the Transition Economy of Poland: An application of SVEqCM, Manuscript, University of Lodz

Winter – Ebmer, Rudolf (1996) Wage Curve, Unemployment Duration and Compensating Differentials, Labour Economics, pp 33 – 38

Wolf, Joachim (1997) Unemployment benefits and Incentives in Hungary: New Evidence, Paper Presented at the Conference on Labour Markets in Transition Economies, October 17 – 19, 1997