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EFFECTS OF EU EASTERN ENLARGEMENT ON THE REGIONAL LABOUR MARKET

After the imminent EU enlargement, immigration from the new member states will mainly affect Austria's eastern region, where three out of four migrants from the Central and Eastern European countries (CEEC) already live. The same high degree of regional concentration will apply to the commuters likely to be attracted by the opening labour market. Apart from Vienna, they will target the bigger cities and the border areas. However, there will be a marked difference in the kind of immigrants that move to the two regions: the proportion of highly qualified workers will be distinctly higher in the border areas than in the cities. These qualified immigrants will be an important human capital resource for the border areas, while in the cities it will be necessary to raise skill levels in order to improve the employability of foreign workers.

Peter Huber is an economist at WIFO. The author would like to thank Gerhard Palme and Ewald Walterskirchen for valuable advice and suggestions. The data were processed and analysed with the support of Andrea Grabmayer, Andrea Hartmann and Maria Thalhammer. • E-mail addresses: Peter.Huber@wifo.ac.at, thal@wifo.ac.at • The article summarises two WIFO studies within the scope of the PREPARITY research programme on structural policy and regional planning for the regions along the EU's external borders in preparation for the EU's eastern enlargement (co-ordination: Peter Mayerhofer, Gerhard Palme, WIFO): Peter Huber (WIFO), Helmut Hofer (IHS), Teilprojekt 9: Auswirkungen der EU-Erweiterung auf den österreichischen Arbeitsmarkt (Effect of the EU Enlargement on the Austrian Labour Market), Peter Huber, Teilprojekt 10: Migration und Pendeln infolge der EU-Erweiterung (Migration and Commuting as a Result of EU Enlargement), 100 and 110 pages, EUR 29.07 or ATS 400 each; free download from <http://preparity.wsr.ac.at>. Orders taken by Christine Kautz, e-mail Christine.Kautz@wifo.ac.at, Tel. +43 1 798 26 01 282, Fax +43 1 798 93 86.

The free movement of capital and labour is one of the basic principles of European integration. However, in the EU countries there are concerns that the free movement of labour, if granted to the new members immediately upon their accession, may give rise to large-scale migration towards western Europe and to economic and social problems in the host countries. The accession candidates, for their part, hope that integration into the European Union will give them access to western European labour markets, alleviate problems in their domestic labour markets and raise disposable income and human capital endowment through foreign workers' remittances of earnings or the later return of emigrants. On the other hand, there are fears that the major loss may be of highly qualified workers, deteriorating the human capital base in the home countries.

In order to examine whether the different hopes or fears are justified, it is necessary to first try and estimate how much migration there is likely to be. Since migration is not evenly distributed across regions, it would also be interesting to identify the most likely national and local target areas. Furthermore, migration has different impacts on the host country, depending on its composition: what level of qualification do the potential migrants have? How long will they stay in the guest country? Will they be mainly immigrants or rather commuters?

At present, there are 22 different estimates available across Europe on the migration potential from the Central and Eastern European countries, ranging from 41,000 to 680,000 immigrants into the EU per year. However, ex-post projections of German East-West migration after re-unification and of immigration to western Germany from Spain and Portugal after 1992 confirm that the models used in the literature, had they been applied in the past, would have produced significant forecasting errors (Aecke et al., 2001): migration from eastern to western Germany would have been overestimated by 1 percent of the population per year, that from Spain to Germany by 0.1 percent.

Scope and structure of immigration

Broad range of quantitative projections of migration

Table 1: Studies on migration potential

	Scale	Countries included	Method
Layard <i>et al.</i> (1992)	130,000 per year to the west	Poland, Czech Republic, Slovakia, Hungary	Applied results of North-South migration
Brücker – Franzmeyer (1997)	340,000 to 680,000 per year 590,000 to 1,180,000 per year	Poland, Hungary, Czech Republic, Slovakia, Slovenia All accession countries	Gravitation estimate based on Barro
Fassmann – Hintermann (1997)	721,000 effective migration potential 320,000 to Germany 150,000 to Austria	Poland, Czech Republic, Slovakia, Hungary	Representative sample survey
Aintila (1998)	Around 13,000 per year to Finland	As Lundborg, special emphasis on Estonia	Cautious estimate following Lundborg
Hofer (1998)	25,000 to 40,000 per year to Austria	As Brücker – Franzmeyer (1997)	Adaptation of estimate by Brücker – Franzmeyer (1997)
Lundborg <i>et al.</i> (1997), Lundborg (1998)	628,000 workers to the EU 1,885,000 (including family members up to 15 years) 126,000 per year 20,000 to 30,000 workers per year	Baltic States, Poland	As Layard
Sujanova – Sujan (1997)	39,000 from 2005 to 2010	Czech Republic	No details specified (macro model assumption)
Huber – Pichelmann (1998)	140,000 to 200,000 to whole EU	All CEEC	Application to total CEEC of Sujanova – Sujan
Sik (1998)	Migration potential in border regions only	Hungary	Household panel survey
Walterskirchen – Dietz (1998)	42,000 when starting 2005 31,600 when starting 2015 workers migrating and commuting to Austria per year 150,000 to 200,000 potential over 5 years 150,000 long-term commuter potential	Czech Republic, Poland, Slovakia, Hungary, Slovenia	Similar to Brücker – Franzmeyer (1997)
Wallace (1998)	No precise information on potential, but on structure	All accession countries and Croatia, Yugoslavia, Ukraine, Belarus	Representative sample survey: 1,000 persons per country
Bauer – Zimmermann (1999)	Around 3 million within next 10 to 15 years	Poland, Czech Republic, Slovakia, Hungary, Slovenia, Romania, Bulgaria	Similar to Layard
Fertig (1999)	38,000 to 31,000 decreasing over 20 years, p.a. to Germany	Five accession countries of first round	Model estimation following Hatton
Salt <i>et al.</i> (1999)	Max. 41,000 per year	Estonia, Poland, Czech Republic, Hungary, Slovenia	Projection on the basis of standard migration indices of selected western European countries
Orlowski – Zienkowski (1999)	390,000 to 1,5 million to EU, to Germany 195,000 to 410,000, to Austria 23,000 to 123,000	Poland	Gravitation model

Source: Hönekopp (1999).

Probably the most influential and sophisticated among these studies was presented by Boeri – Brücker (2000). They calculated the potential for migration from the 10 accession candidates in Central and Eastern Europe using immigration to western Germany as a "reference model". Under the more realistic assumption of accession by Poland, the Czech Republic, Hungary, Slovakia and Slovenia, the study arrives at an estimate of some 20,000 immigrants to Austria in the first year after accession (assuming there is no transition period before migration is fully liberalised) and in the longer term (until 2020), a net population increase of around 175,000. This compares with a net increase in population of roughly 300,000 between 1989 and 1992. Not all of the immigrants would enter the labour market: the projections refer to the change in population, not in labour supply. Judging from past experience, one should assume a labour force participation ratio of some 66 percent for the new immigrants.

There is a general consensus in the literature that the anticipated migration and commuter potential will not be as extensive as in the past. However, the estimates are too uncertain to allow conclusive statements.

Table 2: Recent studies on migration potential

	Scale	Countries included	Method
Boeri – Brücker (2000)	338,000 immigrants in first year of enlargement to whole EU	Poland, Hungary, Czech Republic, Slovakia, Slovenia, Lithuania, Latvia, Estonia, Romania, Bulgaria	Time series model for immigration to western Germany
Orlowski (2000)	1,886,000 to EU assuming fast growth 3,528,000 to EU assuming slow growth	Poland, Hungary, Czech Republic, Slovakia, Slovenia, Lithuania, Latvia, Estonia, Romania, Bulgaria	Cross-section gravitation model
Fidrmuc (2000)	Migration propensity higher in Slovakia than in Czech Republic	Czech Republic, Slovakia	Gravitation model for Czech and Slovak regions
Hille – Straubhaar (2001)	Between 188,000 and 633,000 migrants per year (depending on specification) to whole EU	10 CEE candidate countries	Gravitation model based on migration following southern enlargement
Fertig – Schmidt (2000)	Between 18,000 and 57,000 migrants per year to Germany	Czech Republic, Estonia, Hungary, Poland	Time series model for immigration to western Germany
Bauer – Zimmermann (1999)	Emigration potential of 2 to 3 percent of CEEC population to whole EU	Poland, Czech Republic, Slovakia, Hungary, Slovenia, Romania, Bulgaria	Gravitation model based on migration following southern enlargement

Source: Synthesis by WIFO.

According to Boeri – Brücker (2000), Austria and Germany together would receive 77 percent of total EU immigration. With a share of 12 percent of the EU total, Austria is the prime target of immigration, when taken as a proportion of the population. As in the other studies, the authors do not rule out a regional concentration.

A number of studies have also estimated the potential number of cross-border commuters to be expected (Table 3), yielding equally varied results. This is due in part to the limited predictive power of the different methods, but mainly to different specifications of the variable to be predicted (day commuters only versus day plus weekly commuters) and of the assumed target areas (Austria as a whole versus border regions only).

Table 3: Studies on commuter potential

	Scale	Countries included	Method	Variable projected
Huber – Pichelmann (1998)	47,000 commuters overall, 32,000 of them to the big cities	Czech Republic, Hungary, Slovenia	Application of coefficients from a commuter survey by Maier	Day commuter potential in the border region (30 km) and near-border cities (Vienna, Linz, Graz)
Walterskirchen – Dietz (1998)	150,000 long-term potential of day and weekly commuters	Czech Republic, Hungary, Slovakia, Poland	Experience with cross-border commuting in Austria	Potential of day and weekly commuters
Birner – Huber – Winkler (1999)	Long-term: 61,000 day commuters 95,000 non-day commuters Short-term: 24,100 commuters if accession 2004 21,700 commuters if accession 2010 to Austria in 1 st year, respectively	Czech Republic, Hungary, Slovakia, Slovenia	See Walterskirchen, regionalisation by accessibility	Potential of day and weekly commuters
Huber (2001)	84,000 day commuters	Czech Republic, Hungary, Slovakia, Slovenia	"Place-to-place"-gravitation model with intra-Austrian data	Day commuter potential on assumption of 90 minutes maximum one way travelling time
Alecke – Untiedt (2001)	Commuter total of around 2 percent of the population in border regions	Poland, Czech Republic	"Place-to-place"-gravitation model with intra-German data	Potential of day and weekly commuters

Source: Synthesis by WIFO.

Within the context of the PREPARITY research programme, the long-term potential of day commuters after EU enlargement has been estimated to be about 85,000, assuming there is no transition period for the free movement of labour (Huber, 2001). However, these calculations are subject to several uncertainties, due partly to the comparative attractiveness of cross-border versus internal commuting, and partly to the maximum likely commuting distance. The study assumes a travel time for day commuters of no more than 90 minutes one way. Were that ceiling to be lifted (to 120 minutes), the total num-

ber of commuters would rise markedly. Thus, cross-border commuting will primarily affect Austria's eastern federal states, in particular the border areas, Vienna's suburbs, Vienna itself and the medium-sized cities.

Projections about the composition of immigration from the CEECs are considerably more accurate. A number of studies show that migrants from these countries are better trained than those from the traditional "guest worker countries". This can be explained by the characteristics of the CEEC's educational systems: the centrally-planned economies put special emphasis on vocational education and training, althowWestern European average.

Therefore, most of the immigrants from the CEECs will have completed vocational training. This also applies to workers from the CEECs already living in Austria: according to the "Mikrozensus" sample survey (Table 4), the share of workers who have completed an apprenticeship is higher among people from the CEECs than other foreigners, while the share of workers that have only finished compulsory schooling is significantly lower. Also, the share of CEEC immigrants with a better education (general or vocational upper secondary education, college or university level) is close to that of Austrian citizens.

CEEC citizens are also found somewhat more often in service jobs and professions of higher qualification (e.g., as technicians) and slightly less often as unqualified workers than are other foreign workers. However, they also work predominantly in manual trades and related occupations, or as plant and machine operators.

Migrants from the CEECs are relatively highly qualified

Table 4: Population by highest educational level attained and nationality

	Austrian origin	Total	Foreign origin		
			CEEC ¹ Percentage shares	EU	Other
Compulsory school or less	35.6	52.3	47.0	19.3	59.6
Apprenticeship, lower secondary vocational school	45.6	30.1	37.1	37.1	27.5
Upper secondary general or vocational school	13.2	10.6	12.0	19.7	8.6
University and other higher education	5.6	7.0	4.0	23.9	4.4

Source: Statistics Austria, Labour Force Survey 1999; special data analysis by WIFO. – ¹ Poland, Czech Republic, Slovakia, Hungary and Slovenia.

Interviews conducted in the CEECs (e.g., Wallace, 1998) reveal the intention of most potential migrants to return to their home countries within a short time: between 30 and 50 percent of those sampled with a strong preference for migrating say they do not want to stay away for more than a few weeks. Only 7 to 14 percent want to stay for good. These findings are confirmed by the actual behaviour of CEEC migrants: according to the migration statistics, the turnover among migrants from the CEECs is higher than for immigrants from other countries (for the period 1995 to 1999 the data show a total immigration of around 41,000 and an emigration of about 39,000).

Often only short-term stay in Austria envisaged

Table 5: Mobility of migrants by nationality, 1996 to 1999

	Inflow		Outflow		Change in stock as a percentage of total flow ¹	
	Men	Women	Men	Women	Men	Women
All foreigners	125,957	119,646	106,857	83,956	+ 8.2	+ 17.5
Europeans	102,992	99,023	90,840	72,429	+ 6.3	+ 15.5
From the 4 candidate countries	20,426	21,008	21,633	17,529	- 2.9	+ 9.0
Poland	12,099	9,201	12,641	8,334	- 2.2	+ 4.9
Czech Republic	2,027	3,236	2,691	2,677	- 14.1	+ 9.5
Slovakia	2,988	3,866	2,871	2,828	+ 2.0	+ 15.5
Hungary	3,312	4,705	3,430	3,690	- 1.8	+ 12.1

Source: Statistics Austria, population register, WIFO calculations. – ¹ Change in stock (inflow minus outflow) as a percentage of total flow (inflow plus outflow).

The amount of short-term immigration also depends on a region's economic structure. While the turnover of immigration is very low in Vienna, where over 17 percent of all migration flows are reflected in the net change in the number of foreigners, the respec-

tive ratios are noticeably higher in tourist and rural areas where seasonal workers play a larger role.

The imminent round of EU enlargement calls for an in-depth investigation of the impact immigration would have on the Austrian labour market, considering the notable "wave" of immigration from 1989 to 1994 following the collapse of communism. Studies on the macro-economic implications (e.g., Breuss, 2001) come to quite positive results: immigration broadens an economy's resource base, yielding gains in both output and general welfare.

Immigration has positive effects on overall economic growth and welfare, but negative distributional consequences.

Table 6: Results from studies on the effects of migration on the Austrian labour market

	Dependent variable	Migration measure	Results
Winter-Ebmer – Zweimüller (1996A)	Unemployment risk Wages Wage growth Individual unemployment rate (for different labour market groups)	Share of foreigners	Migration raises wages of the high-qualified, depresses wages of the low-qualified workers, raises the risk of unemployment and the individual unemployment rate
Winter-Ebmer – Zweimüller (1994)	Unemployment risk for young men	Share of foreigners	Migration only had significant influence on unemployment risk in 1988/89
Winter-Ebmer – Zweimüller (1996B)	Wages and wage growth for young men	Share of foreigners and change in share	Migration reduces wage growth
Winter-Ebmer – Zimmermann (2000)	Growth of domestic employment growth by sector	Change in share of foreigners	Migration reduces growth of domestic employment
Winter-Ebmer – Zweimüller (1996C)	Risk and duration of unemployment	Change in share of foreigners	When controlling for industrial groups, migration has no effect on risk of unemployment, but raises duration of unemployment
Boeri – Brücker (2000)	Wage growth and mobility of domestic employees of age 19 to 56	Change in share of foreigners	Migration reduces wage growth of workers and raises the probability of becoming unemployed
Hofer – Huber (2001)	Wage growth and mobility of domestic male employees of age 19 to 56	Change in share of foreigners	Migration reduces wage growth of workers and raises the probability of becoming unemployed; effects are concentrated on blue-collar workers
Huber – Hofer (2001)	Wage growth and mobility of domestic employees of age 19 to 56 (by income quartiles)	Change in share of foreigners	Migration has positive effects on highly paid labour and negative ones on people in lower income brackets as well as less mobile female workers

Source: Synthesis by WIFO.

Micro-economic analyses, on the other hand, attempt to measure the effect of migration on specific groups in the labour market. Such analyses arrive at a more complex and differential reaction within the Austrian labour market. On the whole, as most studies suggest, the impact on average wage should be insignificant. However, the size of the effect depends on the scope of immigration: A greater impact per immigrant can be expected in times of high than in times of low immigration (Winter-Ebmer – Zweimüller, 1994).

The effects also vary significantly between different labour market groups (Table 6). In general, the higher-qualified tend to benefit from the influx of less qualified workers – their wages rise. The low-qualified, on the other hand, come under greater competitive pressure with the influx of more low-qualified labour – and their wages fall. Moreover, less mobile workers who cannot react to higher competitive pressure by moving out of their sector or region, are affected to a higher degree.

For male blue-collar workers immigration is associated mainly with a slower increase in wages, while wage growth of white-collar workers shows virtually no reaction. Among women, it is mainly the less mobile groups that suffer wage losses. Overall, wage growth of both men and women accelerates in the top income quartile with higher immigration, while it slows down for both sexes in the bottom quartile.

Immigration has a stronger impact on unemployment risk than on wage growth. Blue-collar workers are particularly threatened by job losses through the influx of foreign labour. For all other groups, the unemployment risk profile is rather diversified. Newly arriving workers from the CEECs are mainly competing for jobs with earlier foreign immigrants. There is also competition between foreign labour and domestic blue-collar workers, but hardly vis-à-vis white-collar or female workers.

A higher pace of immigration is associated mainly with a slower increase in wages of male blue-collar workers, while wage growth of white-collar workers shows virtually no reaction. Among women, it is mainly the less mobile groups that suffer wage losses through immigration. Overall, wage growth of both men and women accelerates in the top income quartile with higher immigration, while it is damped for both sexes in the bottom quartile.

Settlement pattern of foreign workers

One aspect that has so far been largely neglected in the debate on the labour market effects of enlargement and particularly the effects of migration is the regional concentration of foreign workers. Most countries exhibit similar migration settlement patterns. Migrants of the same nationality usually concentrate in a few places. In most countries they prefer cities or urban areas where a larger group of immigrants of the same origin already resides (Bartel, 1989).

This tendency towards regional concentration can also be observed in Austria (Figure 1) as is indicated by the Herfindahl index and by the share of the largest recipient region (Vienna). The Herfindahl index is defined as the sum of the squared ratios of an administrative district to the total population of a particular nationality living in Austria. Since the Austrian population is not spread evenly over the national territory either – around 20 percent of the domestic population lives in Vienna – this concentration measure is compared with the one for the Austrian population.

Regional concentration is higher for all groups of foreign residents than for the domestic population. Still, the index figures differ considerably: Slovak and Polish nationals, due to their high share of immigrants in Vienna, exhibit the highest regional concentration in their settlement pattern. Migrants from Hungary, the Czech Republic and especially from Slovenia, on the other hand, are less regionally concentrated and a lower proportion of them lives in Vienna.

The concentration of foreign migrants might be explained by the economic conditions prevailing in the recipient regions. Immigrants, and especially migrant workers, will locate preferably in regions where economic conditions are favourable, i.e., which offer relatively high wages and easy access to the labour market due to low unemployment and strong job growth.

However, this cannot explain the differences in regional settlement patterns between different emigration countries. Thus, Slovenian nationals settle primarily in the south of Austria, Czech citizens in the north. Markedly fewer citizens from eastern neighbouring countries settle in the western parts of Austria than in the east. Migrants from non-neighbouring Poland live predominantly in Vienna and other large cities. An accompanying phenomenon is a divergent settlement pattern of immigrants from the CEECs by functional regions. Czech and Slovenian citizens frequently settle in border regions (around 30 percent of the immigrants from the Czech Republic). Roughly one-quarter of the Slovenian nationals go for the tourist regions. Slovak citizens, on the other hand, have a preference for the big cities (above all Vienna). Almost 60 percent of the Polish immigrants settle in Vienna.

These fundamental facts can best be explained by networking theories of migration, which claim that an agglomeration of migrants with similar characteristics creates certain externalities. Positive externalities (e.g., a lot of people speaking the same language) make it easier for newcomers to find work and accommodation, or to borrow money (Mortenson – Vishnawath, 1994). They reduce the risk of a change of residence and facilitate the transition into the new cultural and language environment, which represents part of the psychological "cost" of migration.

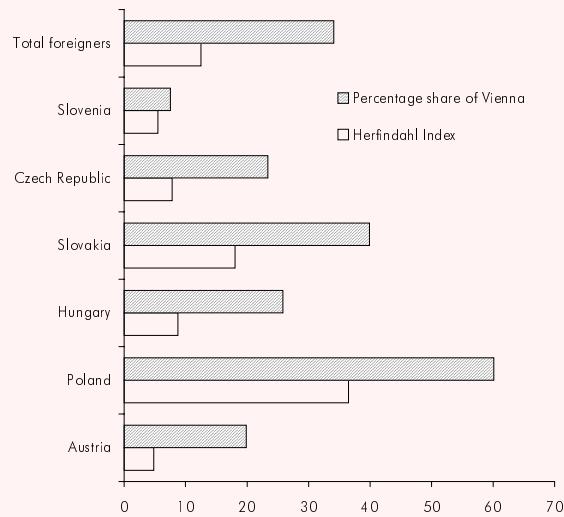
The few empirical studies available on the subject of migrants' regional location decisions (Bartel, 1989, Bartel – Koch, 1991, Rephann – Vencataswamy, 1998) confirm these theories of networking. Thus, according to Bartel (1989), the share of resident immigrants of the same nationality in a particular region is of stronger influence on the location pattern of newcomers than wage differentials or the unemployment rate in the region of destination. Findings from the present study suggest that in Austria both wage differentials and the share of residents of the same nationality are of crucial importance for the location decision.

From networking theories we can derive a host of further propositions concerning the regional effects of EU enlargement. In particular, settlement patterns should vary for different educational levels. Low-qualified workers benefit most from the positive external effects of residential agglomeration, since they depend more than the highly qualified on outside help, such as with their job and housing search. Results from the 1991 population census support this assumption: while the share of the domestic population that has only completed compulsory schooling is higher in the peripheral than in the central regions, that of foreigners of the same category is relatively lower. At the same time, the share of foreigners with a better education lags in peripheral areas behind that of central areas, but not to the same extent as for the domestic population (Table 7). More-

The share of the domestic population that has only completed compulsory schooling is higher in the peripheral than in the central regions. Conversely, foreign citizens in the central regions are more often less-qualified than those living at the periphery.

over, among foreign workers, regional concentration is higher for those with only compulsory schooling than for the more highly qualified.

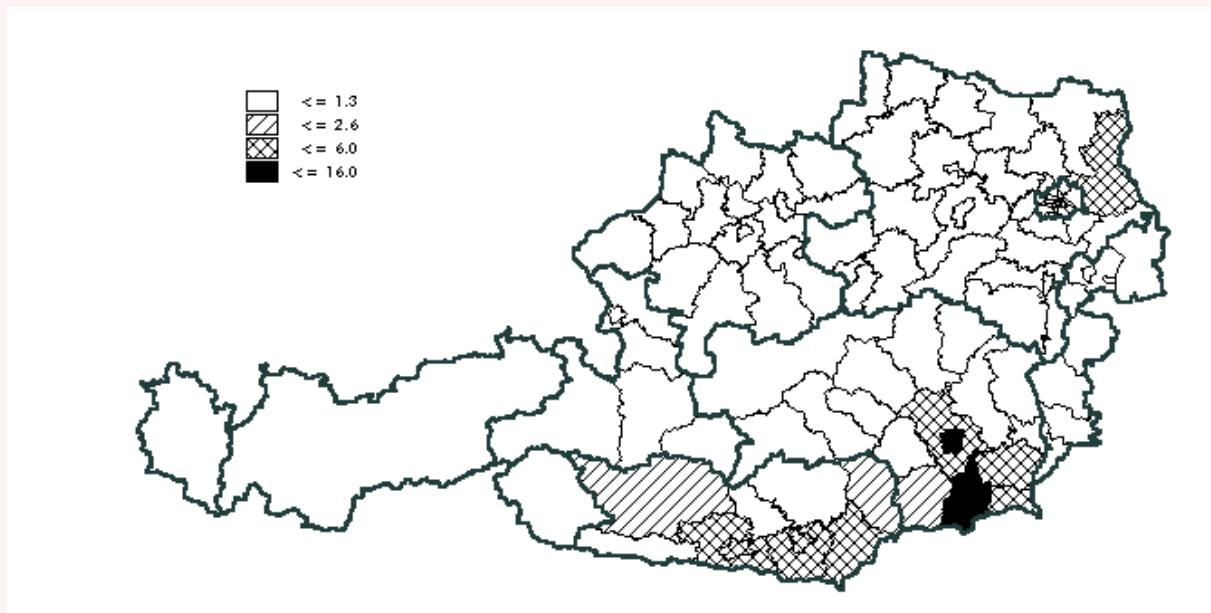
Figure 1: Regional concentration of foreigners' residential pattern in Austria



Source: Foreigners information system.

Figure 2: Settlement pattern of Slovene migrants in Austria

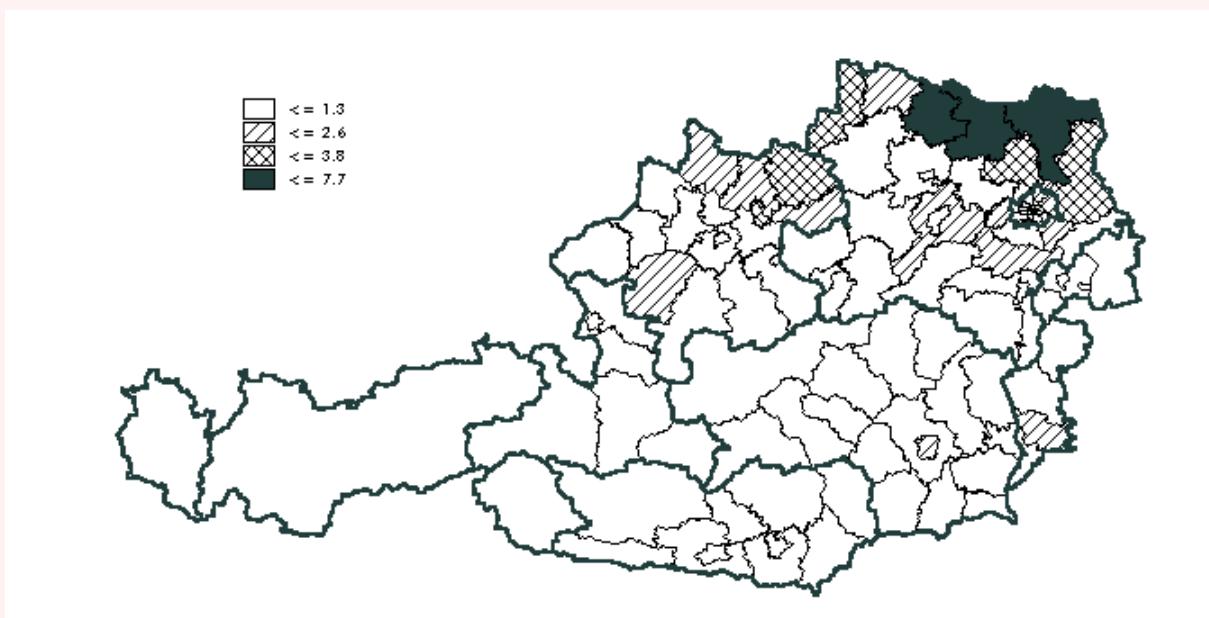
Percentage shares of districts in total of Slovene migrants



Source: Foreigners information system.

Figure 3: Settlement pattern of Czech migrants in Austria

Percentage shares of districts of total Czech migrants



Source: Foreigners information system.

Table 7: Foreign and domestic residential population by type of district and highest educational level attained

	University and other higher education		Upper secondary general or vocational school		Vocational school and apprenticeship		Compulsory school	
	Austrians	Foreigners	Austrians	Foreigners	Austrians	Foreigners	Austrians	Foreigners
Capital	8.1	8.5	15.0	12.4	45.6	18.6	31.4	60.5
Major cities	9.0	8.2	15.3	15.4	42.3	20.2	33.4	56.3
Suburbs	4.9	6.2	10.2	9.5	47.4	22.7	37.5	61.6
Medium-sized towns	5.0	3.3	9.7	5.8	45.6	19.0	39.8	72.0
Intensive industrial regions	3.4	4.2	6.8	7.5	46.9	25.6	43.0	62.7
Intensive tourist regions	3.2	5.4	6.5	9.6	47.9	27.4	42.5	57.6
Extensive industrial regions	2.9	4.9	6.0	9.4	43.5	29.7	47.6	55.9
Touristic border regions	3.0	6.8	6.0	13.6	43.5	35.0	47.5	44.6
Industrialised border regions	2.8	6.6	5.7	15.1	40.6	32.0	50.9	46.3

Source: Statistics Austria, Population Census 1991.

A projection of the migration potential between the European Union and the accession candidate countries is fraught with considerable uncertainties. This deficiency could be reduced by efforts to gather more information on applications for immigration.

High regional concentration of immigration and an above-average concentration of low-qualified foreign workers in urban agglomerations are two typical features, and they play a major role in the context of EU enlargement:

- Immigration of citizens from the CEECs will mainly affect Austria's eastern region where three out of four immigrants from the CEECs now live. This strong regional concentration is further intensified by commuters whose prime target will be the eastern region as well.
- Apart from Vienna, the larger cities and the border regions will receive an over-proportional share of migrants. However, the immigration profile will be clearly different between these two types of regions: the share of higher-qualified labour will be considerably larger in the border regions than in the cities. While the immigrants will provide a major human capital resource for the border regions, in the cities it will be necessary to raise the skill level and employability of foreign workers with ad-hoc integration and qualification measures.

Conclusion and interpretation of results

The results lend support to the call for economic policy to maintain control over immigration, in order to ensure a more even distribution of migrants across regions. This call has been taken up at the European level through the provision of restrictions to the free movement of labour over a transition period. The debate on the implications of EU enlargement for labour mobility is thus entering a new stage, calling for active preparation for the entry of the CEECs into the single market.

The results of the present study underline the challenges of EU enlargement for integration policy. Especially in the big cities, the capacity for the integration of migrants will have to be reinforced, such as by fully conforming all labour laws and regulations for foreign and domestic workers, by efforts to dismantle language and social barriers, or by providing assistance in dealing with legal issues in work and housing areas.

Aintila, A.H., *The Effects of EU's Eastern Enlargement on Finnish Labour Markets*, Brussels, 1998 (mimeo).

Alecke, B., et al., "What a Difference a Constant Makes – How Predictable are International Migration Flows?", in OECD, *Migration Policies and EU Enlargement: The Case of Central and Eastern Europe*, OECD Proceedings, Paris, 2001, pp. 63-78.

Alecke, B., Untiedt, G., PREPARITY – Strukturpolitik und Raumplanung in den Regionen an der mitteleuropäischen EU-Außengrenze zur Vorbereitung auf die EU-Osterweiterung. Teilprojekt 5 (Deutschland): Außenhandel der östlichen deutschen Grenzregionen mit Polen und Tschechien, GEFRA, Münster, 2001.

Bartel, A., "Where Do the New U.S. Immigrants Live?", *Journal of Labor Economics*, 1989, 7(4), pp. 371-391.

Bartel, A., Koch, M., "Internal Migration of U.S. Immigrants", in Abowd, J., Freeman, R. B. (Eds.), *Immigration, Trade, and the Labor Market*, National Bureau of Economic Research Project Report, University of Chicago Press, Chicago-London, 1991, pp. 121-134.

Bauer, T.K., Zimmermann, K.F., *Assessment of Possible Migration Pressure and its Labour Market Impact Following EU Enlargement to Central and Eastern Europe*, Bonn, 1999.

Birner, A., Huber, P., Winkler, P., "Schätzung des Potentials an Einpendlern und Arbeitsmigranten aus den MOEL und regionale Arbeitsmarktwirkungen", in Palme (1999).

Boeri, T., Brücker, H., *The Impact of Eastern Enlargement on Employment and Labour Markets in the EU Member States*, DIW, CEPR, FIEF, IGIER, IHS, Berlin-Milan, 2000.

Breuss, F., "Macroeconomic Effects of EU Enlargement for Old and New Members", *WIFO Working Papers*, 2001, (143).

Brücker, H., Franzmeyer, F., "Europäische Union: Osterweiterung und Arbeitskräftemigration", DIW-Wochenbericht, 1997, (5), pp. 89-96.

Fassmann, H., Hintermann, C., "Migrationspotential Ostmitteleuropa", Institut für Stadt- und Regionalforschung, ISR-Forschungsberichte, 1997, (15).

Fertig, M., *Potential Migration from the East to Germany: Time Series Analysis and Scenario*, Heidelberg, 1999 (mimeo).

Fertig, M., Schmidt, C.M., "Aggregate-Level Migration Studies as a Tool for Forecasting Future Migration Streams", IZA Working Paper, 2000, (183).

Fidrmuc, J., *Migration in Transition Economies: Adjustment to Shocks and the Implications for Post-enlargement Migration*, Workshop "Eastern Enlargement and Migration", NOBE/CEPS, Brussels, 2000.

Friedberg, R., Hunt, J., "The Impact of Immigrants on Host Country Wages, Employment und Growth", *Journal of Economic Perspectives*, 1995, 9(2), pp. 23-44.

Hille, H., Straubhaar, T., "The Impact of EU Enlargement on Migration Movements and Economic Integration: Results of Recent Studies", in OECD, *Migration Policies and EU Enlargement. The Case of Central and Eastern Europe*, OECD Proceedings, Paris, 2001, pp. 79-100.

Hofer, H., "The Impact of Emigration on Host Country's Wages und Unemployment", in Pichelmann (1998).

Hofer, H., Huber, P., "The Wage and Mobility Effects of Trade and Migration on the Austrian Labour Market", Institute for Advanced Studies, Economics Series, 2001, (97).

Hönekopp, E., "EU-Osterweiterung: Auswirkungen auf die Arbeitsmärkte der Mitgliedsländer der Europäischen Union", EZFF Occasional Papers, 1999, (22), pp. 116-142.

Huber, P., PREPARITY – Strukturpolitik und Raumplanung in den Regionen an der mitteleuropäischen EU-Außengrenze zur Vorbereitung auf die EU-Osterweiterung. Teilprojekt 10: Migration und Pendeln infolge der EU-Erweiterung, WIFO, Vienna, 2001.

Huber, P., Hofer, H., PREPARITY - Strukturpolitik und Raumplanung in den Regionen an der mitteleuropäischen EU-Außengrenze zur Vorbereitung auf die EU-Osterweiterung. Teilprojekt 9: Auswirkungen der EU-Erweiterung auf den österreichischen Arbeitsmarkt, WIFO, Vienna, 2001.

Huber, P., Pichelmann, K., "Osterweiterung, struktureller Wandel und Arbeitsmärkte", *Wirtschaftspolitische Blätter*, 1998, (4), pp. 339-349.

References

Keuschnigg, C., Kohler, W., "Eastern Enlargement of the EU: How Much Is It Worth For Austria?", CEPR Working Paper, 1998, (1786).

Keuschnigg, C., Kohler, W., Eastern Enlargement to the EU: Economic Costs and Benefits for the EU Present Member States. The Case of Austria, European Commission, Study XIX/B1/9801, Brussels, 1999 (mimeo).

Layard et al., East-West Migration. The Alternatives, Cambridge, 1992.

Lundborg, P., The Free Movement of Labour between Sweden and the New EU Members. In a Bigger and Better Europe? Final Report from the Committee on the Economic Effects of EU Enlargement, Stockholm, 1998.

Lundborg, P., et al., *Arbetskraftens fria rörlighet, Trygghet och jämställdhet*, Stockholm, 1997.

Mortenson, D.T., Vishnawath, T., "Personal Contacts and Earnings: It is who you know!", *Labour Economics*, 1994, 1, pp. 187-201.

Orlowski, W.M., Migration from Central and Eastern European Countries after Accession: Effects for Regions, Labour Markets and Social Security Systems, Workshop "Eastern Enlargement and Migration", NOBE/CEPS, Brussels, 2000.

Orlowski, W.M., Zienkowski, L., "Potential Size of Migration from Poland after Joining the EU", WIIW, Monthly Report, 1999, 2, pp. 8-12.

Palme, G. (Co-ordination), Regionale Auswirkungen der EU-Integration der MOEL, WIFO, Vienna, 1999.

Effects of EU Eastern Enlargement on the Regional Labour Market – Summary

Estimates put the potential of migration from the CEECs to all EU countries between 41,000 and 680,000 migrants annually. It is generally agreed that these estimates are too uncertain to allow any useful assessment. Most migrants from the CEECs (77 percent) will come to Austria and Germany.

Similarly, projections of the potential flow of cross-border commuters following eastern enlargement arrive at highly varying numbers. In studying this issue, the PREPARITY research programme on structural policy and regional planning in the regions along the EU's Central European border to prepare for eastern enlargement found a potential of about 85,000 day commuters into Austria, assuming that enlargement would be implemented without transition periods. The uncertainty of the figures is due to the relative appeal of cross-border as compared to domestic commuting on the one hand and to the maximum commuting distance on the other.

More accuracy is offered by projections regarding the structure of migration. Migrants from the CEECs are better qualified than those from the traditional "guest worker countries". Most CEECs migrants have completed an apprenticeship and more frequently hold highly qualified jobs (e.g., as technicians) than low-skilled jobs, compared with other foreign workers.

Migration extends the resource base of an economy, which in turn increases growth and welfare. Accordingly, migration offers benefits to the economy as a whole. Nevertheless, these benefits are not distributed evenly among the population. In general, highly qualified workers benefit from the migration of lower-qualified workers, whereas lower-qualified workers come under increasing competitive pressure from migrants. For men, migration means primarily lower wage growth among blue-collar workers, whereas wages for white-collar workers are hardly affected. Among women, it is mostly the less mobile workers who suffer wage losses. For men and women in the top income quartile, wage growth is enhanced by stronger migration, whereas it slows down for those in the lowest income quartile.

Migration has a greater effect on the risk of unemployment for men and women than on wage growth. Blue-collar workers in particular find the risk of losing their job rises with increasing migration. For all other groups, unemployment has highly heterogeneous causes. Workers newly migrated from the CEECs mainly compete with foreign workers who have arrived long before them; they also compete with domestic blue-collar workers.

As happens in most other countries, migrants in Austria prefer to settle in regions where they can join a large agglomeration of their own nationality. Thus, Slovenes tend to settle in the south of Austria, Czechs in the north. Western Austria has substantially fewer citizens from the eastern neighbours than eastern Austria. Citizens from Poland, which does not share a border with Austria, usually opt for Vienna and other major towns. In addition, the share of low-skilled foreign citizens is higher in central than in peripheral regions. For the latter, migrants thus offer a major human capital resource, whereas urban areas will find it necessary to improve the qualification levels and employment options of their foreign workers by integration, further education and training.

The findings of the analysis support the call for keeping migration under control. Control allows migration to be spread evenly across regions and to obtain a level of security in the enlargement process. In response to this call, defensive measures have been decided at the European level (transition period of, at most, seven years for the free movement of labour). Subsequently, the discussion of the consequences of eastern enlargement on migration policy will primarily serve to actively prepare for enlargement.

The transition periods are not only intended to keep migration under control for a limited period, but also as an opportunity to establish indirect instruments of control (e.g., for cross-border co-operation by the labour exchanges) which will enable effective labour market management once the transition periods have expired.

Pichelmann, K. (Ed.), *The Economic Consequences of Eastern Enlargement of the European Union – The Austrian View*, Institute for Advanced Studies, Vienna 1998.

Rephann, T., Vencataswamy, C., *Determinants of the Spatial Mobility of Immigrants in Sweden*, 39th European Congress of the European Regional Science Association, Dublin, 1998.

Salt, J., et al., *Assessment of Possible Migration Pressure and its Labour Market Impact Following EU Enlargement to Central and Eastern Europe. Part 1*, Department of Education and Employment, London, 1999.

Sinn, H.W., *EU Enlargement, Migration and Lessons from German Unification*, CEPR Working Paper, 1999, (2,174).

Sik, E., *The Social, Economic und Legal Aspects of Migration in Contemporary Hungary in Relation to the Accession to the European Union*, Hungarian Academie of Sciences, Centre for Migration und Refugee Studies, Budapest, 1998.

Sujanova, M., Sujan, I., *Macroeconomic Effects of Joining the EU for a Transition Country: A Case of the Czech Republic*, LINK Fall Meeting, Kuala Lumpur, 1997.

Wallace, C., *Migration Potential in Central und Eastern Europe*, IOM – International Organization for Migration, Geneva, 1998.

Walterskirchen, E., Dietz, R., Auswirkungen der EU-Osterweiterung auf den österreichischen Arbeitsmarkt, WIFO, Vienna, 1998.

Winter-Ebmer, R., Zimmermann, K.F., "East west Trade and Migration: The Austro-German Case", in Faini, R., De Melo, J., Zimmermann, K.F. (Eds.), *Migration – The Controversies and the Evidence*, Cambridge University Press, 2000, pp. 296-326.

Winter-Ebmer, R., Zweimüller, J., "Do Immigrants Displace Native Workers? The Austrian Experience", CEPR Working Paper, 1994, (991).

Winter-Ebmer, R., Zweimüller, J. (1996A), "Die Auswirkungen der Ausländerbeschäftigung auf den österreichischen Arbeitsmarkt 1988 bis 1991", in Holzmann, R., Neck, R. (Eds.), *Ostöffnung: Wirtschaftliche Folgen für Österreich*, Manz, Vienna, 1996, pp. 55-102.

Winter-Ebmer, R., Zweimüller, J. (1996B), "Immigration and the Earnings of Young Native Workers", Oxford Economic Papers, 1996, 48, pp. 473-491.

Winter-Ebmer, R., Zweimüller, J. (1996C), "Immigration, Trade and Austrian Unemployment", CEPR Discussion Paper, 1996, (1346).