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1. Introduction

Since the beginning of the post-socialist economic reforms, most east European countries have experienced a growing labour market segmentation. Striking characteristics are the concentration of unemployment among certain social groups, such as young people, older workers with low skills and women, as well as the clear geographical dimension of unemployment. Unemployment rates vary considerably across regions within a country, usually more so than in western market economies (Scarpetta, 1995; Boeri and Scarpetta, 1995).

According to the Hungarian Central Statistical Office (CSO),¹ the rate of registered unemployed in Hungary amounted to 10.4% nationwide by the end of 1997, but it varied from county to county, from between 4.5% (Budapest) to 19.3% (Szabolcs-Szatmár-Bereg).²

This article will empirically analyse how one potential mechanism for equalising regional unemployment disparities, namely internal migration, has responded to the unemployment differentials in Hungary during the time period 1990-1996.³

2. Unemployment in Hungary

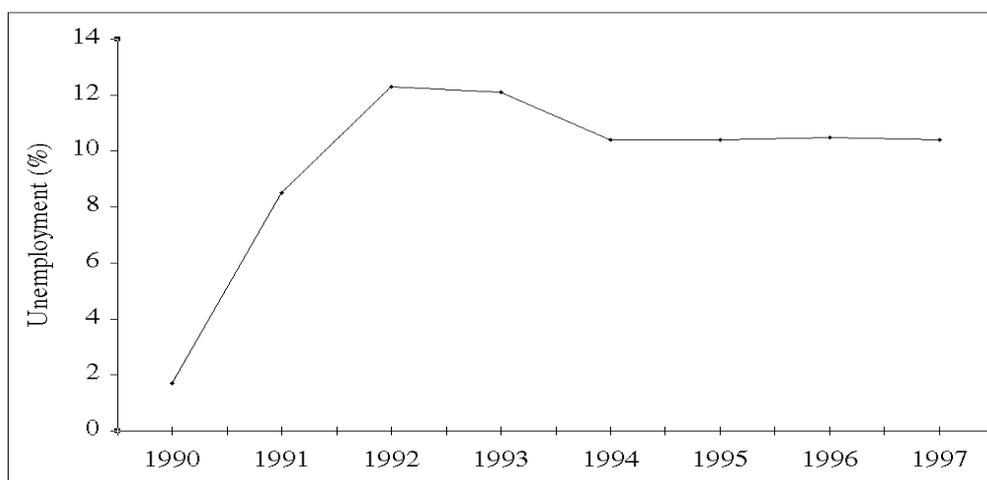
a. The development of unemployment in Hungary

Some authors claim that unemployment existed in all socialist economies long before 1989 in the form of latent unemployment, the so-called “indoor unemployment” (Dövényi, 1994) or “unemployment on the job” (Kornai, 1980). An oft-stated argument for this perception is that the socialist production yield could have been achieved with 15-30% fewer workers (Boeri and Keese, 1992: 3; Dövényi, 1994: 393; Fassmann, 1992: 56; Viszt and Vanyai, 1994: 18). These authors focus on productivity, while others point out that, “The system did at least offer workers security” (Ingham and Grime, 1994: 812). However, not job security but economic efficiency was given priority in the transition economies, in the knowledge that large-scale unemployment would arise, and so it did in Hungary.

- 1 I would like to thank all those at the Hungarian CSO in Budapest who kindly gave me support in the collection of data on the Hungarian labour market and migration.
- 2 In Hungary, the counties are the 20 administratively-defined units, including the capital (Budapest), which has county status.
- 3 Another potential force for equalisation, which will not be included in the analysis here, are wage movements and the consequent attraction of capital to low-wage regions. However, as Boeri and Scarpetta (1995: 80f & 1996: 248ff) show, wages have not been responsive to the evolving regional unemployment differentials in transition economies so far. Their findings have been confirmed by Köllö and Fazekas (1998), and Kertesi and Köllö (1997), who conducted studies on Hungary.

According to the Hungarian CSO, unemployment remained below 1% until July 1990. But in the course of the transformation process it grew rapidly, reaching its peak in February 1993 with 13.5% registered unemployed. Unemployment has fallen since then, but it has remained at the relatively high level of about 10.4% since the end of 1994 (see Chart 1).

Chart 1: Registered unemployment in % (end of year), 1990-1997



Source: Hungarian CSO

At 10.4% by the end of 1997, unemployment in Hungary corresponded to the average unemployment rate of the European Union, which amounted to 10.6% in 1997 (Statistisches Bundesamt, 1998, 50). However, while the figures are comparable, the circumstances are not. In Hungary and the other transition economies, it is the extremely rapid increase in the formerly unknown phenomenon of large-scale unemployment, the relatively poor benefit system and thousands of disappointed expectations that make unemployment a serious socio-economic problem.

b. Regional unemployment differentials in Hungary

In Hungary, regional unemployment disparities first emerged during the late 1980s, when the socialist government, in the course of market-oriented reforms, did – in certain circumstances – allow redundancies.⁴ As these lay-offs took place in very few places, especially in the north-east, while full employment was maintained in the rest of the country, these early redundancies led to extreme unemployment disparities, although the national unemployment rate remained very low (Fazekas and Gorzelak, 1995). As Table 1 shows, the initially strong disparities eased in the early stage of transformation, when unemployment rose throughout the country. This is expressed by the falling quotient of the maximum and minimum unemployment rate (maximum/minimum) in the first years of transformation. Since then, regional unemployment disparities have manifested themselves at a relatively high level.

4 For a detailed description of the market-oriented reforms, the so-called “New Economic Mechanisms” in Hungary since 1968, see, for example, Gábor and Galasi (1981) and Gábor (1994).

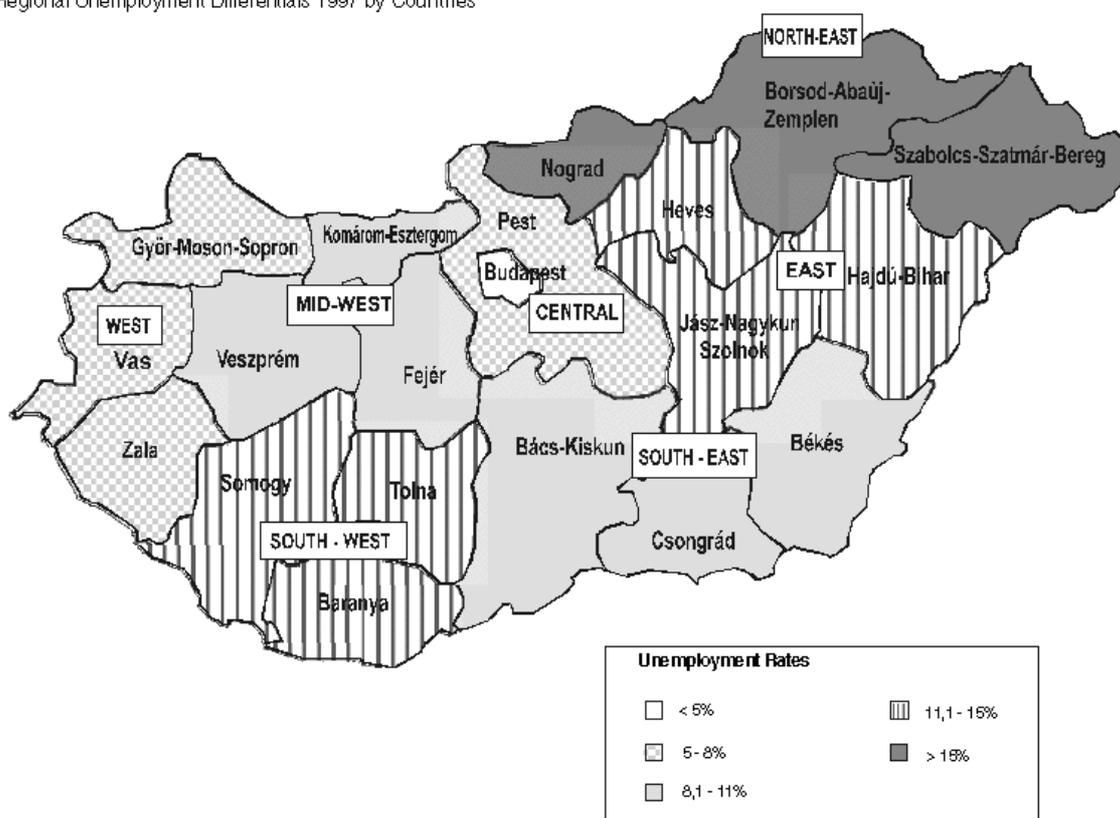
Table 1: Regional differentials in unemployment rates (%) by counties (end of year)

	1990	1991	1992	1993	1994	1995	1996	1997
National unemployment rate	1.7	8.5	12.3	12.1	10.4	10.4	10.5	10.4
Minimum (county) unemployment rate	0.3	2.6	5.7	6.3	5.4	5.7	5.0	4.5
Maximum (county) unemployment rate	4.5	16.4	22.4	19.9	18.5	18.8	19.0	19.3
Maximum/Minimum	15	6.31	3.93	3.16	3.43	3.3	3.8	4.29

Source: Hungarian CSO, author's own calculations

The ranking of the 20 Hungarian counties by their unemployment rates has not changed much since 1990. Budapest has always experienced the lowest unemployment rate while the county Szabolcs-Szatmár-Bereg has always faced the highest rate (except in 1993 when unemployment was highest in Borsod-Abaúj-Zemplén). Therefore, the structure of the map, which shows registered unemployment rates for 1997, can be regarded as providing a general pattern for regional unemployment disparities in Hungary since the beginning of the transformation period.

Regional Unemployment Differentials 1997 by Counties



As shown on the map, unemployment rates are lowest in and around Budapest (Central region) and in the counties bordering Austria (West region), while the highest unemployment rates have emerged in the North-East region (Nógrád, Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg).

In order to reduce complexity in the following empirical analysis of migration, data will usually be presented for the regions (West, Mid-West, South-West, Central, South-East, East and North-East) as depicted in the map. The regions are created out of two or three counties that have experienced similar unemployment rates since 1990.⁵

3. Internal migration – a reaction to regional unemployment differentials in Hungary?

a. Net migration by region

In order to investigate the inter-dependence between internal migration and regional disparities of unemployment, it is necessary to look at net migration figures by region. Net migration figures, also called the migration balance, are the difference between inwards-migration and outwards-migration for a particular territory and time period. Table 2 illustrates the yearly net migration per 1000 inhabitants in Hungary by region.⁶

Table 2: Net migration per 1000 inhabitants by region, 1990-1996

	1990	1991	1992	1993	1994	1995	1996
Budapest	5.8	3.5	1.6	-0.6	-4.3	-5.8	-4.2
Pest	3.0	4.0	6.4	9.4	14.5	14.1	11.8
South-East	-0.4	0.1	-0.2	-0.3	-0.2	0.2	0.3
East	-1.5	-1.4	-1.2	-1.2	2.6	-0.9	-1.0
Mid-West	-0.3	-0.7	-0.2	0.1	1.2	0.8	0.4
North-East	-6.8	-5.4	-4.6	-4.2	-4.1	-2.4	-1.8
South-West	-0.9	-0.1	-0.5	-0.2	-0.1	-0.1	-1.0
West	-0.1	0.1	0.3	0.8	0.7	1.3	0.8

Data Source: Hungarian CSO, author's own calculations

The figures reveal that Budapest was the centre of inwards-migration in 1990 and, although already to a lesser extent, in 1991. The initially high influx gradually ceased

5 West = Győr-Moson-Sopron, Vas, Zala; Mid-West = Komárom-Estergom, Veszprém, Fejér; South-West = Somogy, Tolna, Baranya; Central = Budapest, Pest; South-East = Bács-Kiskun, Csongrád, Békés; East = Heves, Jász-Nagykun-Szolnok, Hajdú-Bihar; North-East = Nógrád, Borsod-Abaúj-Zemplén, Szabolcs-Szatmár-Bereg.

6 The counties Pest and Budapest together constitute a region (Central), but they will be depicted separately. The reason for this is that Budapest, with its 2 million inhabitants (20% of the population), is by far the biggest city in Hungary and has always played a special role as a political, economic and international centre.

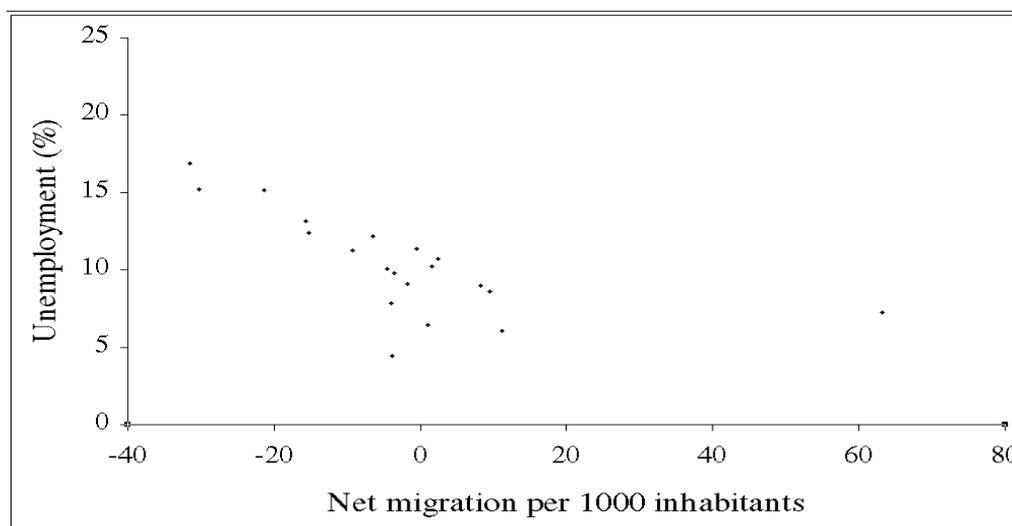
and, since 1993, Budapest has experienced a growing negative migration balance. By contrast, Pest has experienced a positive migration balance since 1990 which grew substantially between 1990 and 1994. On the other hand, the North-East region has shown the highest negative migration balance among all the regions throughout the transformation period. All the other regions, on balance, did not gain or lose inhabitants significantly. Their inwards- and outwards-migration figures have tended to cancel each other out, a well-known phenomenon called the “Lawrey effect” (Van Dijk, Folmer, Herzog and Schlottmann, 1989: 4ff). This effect, expressed by a strongly positive correlation between inwards- and outwards-migration, has been observed in many empirical migration studies and for different countries (e.g. Jackman and Savouri, 1991; Erbenova, 1995). In Hungary, the coefficient of the correlation between inflows and outflows at county level amounts to 0.98 for the time period 1990-96.⁷

As shown in Table 2, some regions have experienced a strongly positive or negative migration balance. Whether this is related to the relevant unemployment rate will be examined next.

b. Correlation between unemployment and migration

One would expect that regions of high unemployment experience a negative, and regions of low unemployment a positive, migration balance (the net migration figure). In other words, net migration and unemployment are expected to be negatively correlated with each other. Whether this is the case in Hungary can be investigated through a correlation analysis. Chart 2 plots aggregated net migration flows per 1000 inhabitants and average unemployment rates in % for the 20 Hungarian counties for the time period 1990–1996, i.e. each point in the chart depicts one county and its relevant migration and unemployment figure.

Chart 2: Unemployment and net migration 1990–1996 by counties



Source: Hungarian CSO, author’s own calculations

7 The coefficient of the correlation between inwards- and outwards-migration of regions is 0.92 in the United Kingdom (Jackman and Savouri, 1991: 22); 0.8 in the Czech Republic (Erbenova, 1995: 423); and 0.98 in the Netherlands (Evers, 1989: 181).

If migration flows were responsive to unemployment conditions, one would expect counties to be disposed along a negatively sloped curve, whereby high unemployment rates are associated with outwards-migration and low unemployment rates with inwards-migration. As shown in Chart 2 this is with only one exception the case for Hungary.

In order to describe the strength of the correlation, the coefficients have been calculated for each year using net migration figures (per 1000 inhabitants) and registered unemployment rates (at the end of the year).

Table 3: Coefficient of correlation (net migration/unemployment), 1990-1996

	Coefficient of Correlation
1990	- 0.78
1991	- 0.81
1992	- 0.73
1993	- 0.62
1994	- 0.51
1995	- 0.35
1996	- 0.37
1990-96	- 0.66

Source: Hungarian CSO, author's own calculations

A negative coefficient of correlation between unemployment and net migration can be observed for each year. The strength of the correlation may have decreased over time, but a clearly negative correlation could be observed for the whole time period, i.e. the coefficient of correlation of -0.66 for 1990-1996. These findings indicate that net migration and unemployment are indeed negatively correlated.

Nevertheless, this does not necessarily indicate that people leave high-unemployment regions in order to move to more promising low-unemployment ones. All that can be concluded at this point is that low unemployment is associated with inwards-migration (a positive migration balance) while high unemployment is associated with outwards-migration (a negative migration balance). Only an investigation into the real direction of migration flows can reveal whether the outflow from high-unemployment regions corresponds to the inflow into low-unemployment ones.

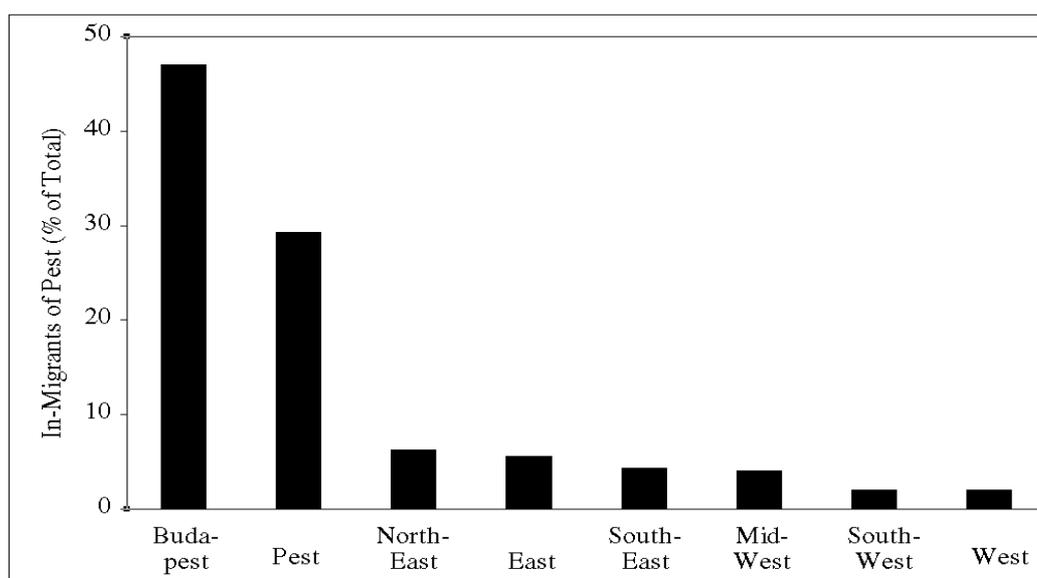
c. The direction of migration

It has been shown that the North-East region in particular is characterised by high outwards-migration (see Table 2). The North-East region of Hungary has been suffering from an economic crisis since the late 1980s and therefore experiences substantially above-average unemployment rates today (Fazekas, 1996: 28ff; Sziráczki, 1988; Cséfalvai, Fassmann and Rohn, 1993: 38ff). Furthermore, it has been discovered that

Pest has experienced a strongly positive migration balance (see Table 2) while Pest's unemployment rate has been below average since 1993.

These observations lead to the assumption that the high inflow to Pest derives from migrants leaving the economically unattractive North-East region. In order to see whether this has been the case, the total number of migrants who moved to Pest between 1990 and 1996 will be examined via a breakdown by their region of origin (see Chart 3).

Chart 3: Origin and number of migrants (%) who moved to Pest between 1990–1996



Source: Hungarian CSO, author's own calculations

Against all expectations, Chart 3 reveals that the high inflow to Pest mainly derives from people leaving Budapest. Almost 50% of Pest's inwards-migrants between 1990 and 1996 came from the capital city, but only 6% came from the high-unemployment region of the North-East. Remarkable is also that 30% of the inwards-migrants were people moving within Pest itself, i.e. from one settlement (town or village) to another within the county.⁸

The comparatively strong migration from Budapest to Pest is related to the ongoing sub-urbanisation process, a well-known phenomenon in large west European and North American cities. From the beginning of the transformation period in Hungary, more and more people who can afford to leave the capital city have moved to the popular "house with a garden" in the suburbs of Budapest (Kovács, 1997).

Accordingly, migration has not worked as an adjustment mechanism. However, this finding cannot be generalised for the whole country at this point. Comprehensive information allowing for the direction and magnitude of migration between all the regions is necessary. Table 4 below shows the destination and number of each region's

8 Only migratory events within a settlement (village or town) are excluded from the migration figures that are collected by the Hungarian population register and provided through the Hungarian CSO.

outwards-migrants. The figures in Table 4 refer to the time period 1990–1996 and depict the number of outwards-migrants as a percentage of the total number of migrants who left the relevant region.

Table 4: The direction and magnitude of migration flows between regions during 1990–1996, (Highlighted cells: intra-regional migration)

Region of Destination	Region of Origin						
	Central	North-East	East	South-East	South-West	Mid-West	West
Central	53.9	22.4	21.8	15.8	11.1	18.4	13.5
North-East	11.2	61.9	10.1	2.2	1.3	2.3	1.4
East	9.7	9.3	57.5	5.1	1.5	2.3	1.4
South-East	7.3	2.0	5.3	68.2	3.9	3.3	2.1
South-West	4.7	1.1	1.5	3.5	73.4	4.6	5.0
Mid-West	8.9	2.2	2.6	3.3	4.9	61.7	9.1
West	4.4	1.2	1.3	1.8	3.9	7.3	67.5
	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Hungarian CSO, author's own calculations

As the figures reveal, most people who moved between 1990 and 1996 chose a destination within their region of origin which, in practice, could be a settlement within the county of origin or a settlement in another county within the region of origin. The Central region, i.e. Budapest and Pest, which (besides the West region) was assumed to be a major destination of migrants, represented each region's second choice. 11.1% to 22.4% of each region's outwards-migrants moved to Central and, in the case of migration flows towards the West region, the result is even worse, i.e. only 1.2% to 7.3% of each region's outwards-migrants have left for the West region.

As a result, intra-regional migration has proved to be much stronger than migration between regions. The phenomenon of intra-regional migration dominating inter-regional migration has also been observed for each single year since 1990, with figures very close to those presented in Table 4 above.

4. Discussion and summary

Hungary, since the beginning of the post-socialist transformation process, has experienced a rapid increase in unemployment, reaching its peak in February 1993 at 13.5% and not falling below 10% since. The differences in unemployment rates between the counties and regions in Hungary are substantial. The Eastern part of Hungary experiences far higher unemployment rates than both the Western region and the capital (Budapest), including its environs (Pest). That has led to the question as to whether people leave places of high unemployment in order to move to regions of low unemployment.

Net migration figures have shown that some regions, such as the county of Pest, have experienced a strongly positive migration balance, i.e. high inwards-migration,

while others, such as the North-East region, have faced negative net migration figures, i.e. high outwards-migration. The correlation analysis revealed that the expected negative correlation between net migration and unemployment holds true for Hungary, which has a correlation coefficient of 0.66 for the time period 1990–1996. However, in order to see whether the negative correlation actually derives from moves taking place from regions of high to regions of low unemployment, the direction of migration has also been analysed in detail. The investigation into the direction of migration has clearly revealed that the majority of moves takes place within regions and not from regions of high to regions of low unemployment. As a result, internal migration cannot be regarded as an adjustment mechanism to regional unemployment differentials in Hungary.

This result corresponds to what has already been observed in other migration studies, namely that the pull effects are usually stronger than the push effects, i.e. people who decide to move to prosperous regions are not necessarily those who come from the economically poorer ones (Van Dijk, Folmer, Herzog and Schlottmann, 1989: 4f; Ehrenberg and Smith, 1997: 342).

The reasons for the weak inter-regional migration in Hungary are diverse. Certainly, the monetary costs related to moving create an impediment for the majority of unemployed people as they usually have no financial resources and there are no active labour market policies that offer financial assistance for those willing to move. Furthermore, housing market conditions add to the problem. The shortage of affordable rental housing, characteristic of Hungary (Kornai, 1995: 18f; Dániel, 1997), makes it difficult for potential migrants to move.

But financial and organisational difficulties are not the only impediments to migration. Mobility decisions are also strongly influenced by psychological costs, i.e. they depend on the person's family context, socio-cultural factors, motivation, etc.

Another important aspect might be the problem of skill mismatches. It can happen that people who are willing to migrate and are somehow able to bear the costs notice that their skills are not in demand in the more prosperous regions. In such a case, it is not very likely that people will decide to move, though Hart (1973) has shown that migration decisions are usually based upon expected regional differences rather than observed ones. However, the aspect of regional skill mismatch is certainly important to many long-term unemployed and low-skilled workers in Hungary who used to work in industrial sectors that have significantly lost their importance today.

Nevertheless, occupational and spatial labour mobility are not the only relevant adjustment mechanisms to regional unemployment differentials. The mobility of capital is necessary as well or, rather, the attraction of capital to high-unemployment regions. Regional wage differentials have proved to be too weak to have an impact upon the attraction of capital (see footnote 3). But not only wage differentials attract capital, further important aspects are the physical and institutional infrastructure, tax advantages, etc.

These and further influencing factors also need to be taken into consideration if the problem of regional unemployment differentials is to be understood in its whole dimension.

References

- Boeri, Z. & Keese, M. (1992): *From Labour Shortage to Labour Shedding: Labour Markets in Central and Eastern Europe*, OECD Labour Market and Social Policy Occasional Papers No. 9, Paris: OECD.
- Boeri, T. & Scarpetta, S. (1995): "Emerging Regional Labor Market Dynamics in Central and Eastern Europe", in: OECD: *The Regional Dimension of Unemployment in Transition Countries*, pp. 75-87, Paris: OECD.
- Cséfalvay, Z., Fassmann, H. & Rohn, W. (1993): *Regionalstruktur im Wandel - Das Beispiel Ungarns*, ISR-Forschungsbericht Nr. 11, Wien: Österreichische Akademie der Wissenschaften, Institut für Stadt- und Regionalforschung.
- Dániel, Z. (1997): "The Paradox in the Privatization of Hungary's Public Housing: a National Gift or a Bad Bargain?", in: *Economics of Transition*, Vol. 5, No. 1, pp. 147-170.
- Dövényi, Z. (1994): "Transition and Unemployment - The Case of Hungary", in: *Geo Journal*, Vol. 32, No. 4, pp. 393-398.
- Ehrenberg, R. G. & Smith, R. S. (1997): *Modern Labor Economics. Theory and Public Policy*, New York: Addison-Wesley Educational Publishers.
- Erbenova, M. (1995): "Regional Unemployment Differentials and Labor Mobility: A Case Study of the Czech Republic", in: OECD: *The Regional Dimension of Unemployment in Transition Countries*, pp. 417-442, Paris: OECD.
- Evers, G. H. M. (1989): "Simultaneous Models for Migration and Commuting: Macro and Micro Economic Approaches", in: Van Dijk, J., Folmer, H., Herzog, H. W. & Schlottmann, A. M. (eds.): *Migration and Labor Market Adjustments*, pp. 177-197, Dordrecht, Boston, London: Kluwer Academic Publishers.
- Fassmann, H. (1992): "Phänomene der Transformation - Ökonomische Restrukturierung und Arbeitslosigkeit in Ost-Mitteuropa", in: *Petermanns Geographische Mitteilungen*, Vol. 136, No. 1, pp. 49-59.
- Fazekas, K. (1996): "Types of Microregions, Dispersion of Unemployment and Local Employment Development in Hungary", in: *Eastern European Economics*, Vol. 34, No. 3, pp. 3-48.
- Fazekas, K. & Gorzelak, G. (1995): "Restructuring and the Labor Market in Regions Dominated by Heavy Industry in Central and Eastern Europe", in: OECD: *The Regional Dimension of Unemployment in Transition Countries*, pp. 314-337, Paris: OECD.
- Gábor, I. R. (1994): "Modernity or a New Kind of Duality? Second Thoughts about the 'Second Economy'", in: Kovács, J. M. (ed.): *Transition to Capitalism? The Communist Legacy in Eastern Europe*, pp. 3-19, New Brunswick, London: Transaction Publishers.

- Gábor, I. R. & Galasi, P. (1981): "The Labour Market in Hungary since 1968", in: Hare, P., Radice, T. & Swain, P. (eds.): *Hungary – A Decade of Economic Reforms*, pp. 41-53, London: Allen and Unwin.
- Hart, R. A. (1973): "Economic Expectations and the Decision to Migrate: An Analysis by Socio-Economic Groups", in: *Regional Studies*, Vol. 7, No. 3, pp. 271-285.
- Ingham, M. & Grime, K. (1994): "Regional Unemployment in Central and Eastern Europe", in: *Regional Studies*, Vol. 28, No. 8, pp. 811-817.
- Jackman, R. (1994): "Economic Policy and Employment in the Transition Economies of Central and Eastern Europe: What Have We Learned?", in: *International Labour Review*, Vol. 133, No. 3, pp. 327-345.
- Jackman, R. & Savouri, S. (1991): *Regional Migration in Britain: An Analysis of Gross Flows Using NHS Central Register Data*, Discussion Paper No. 27, London: London School of Economics, Centre for Economic Performance.
- Kertesi, G. & Köllö, J. (1997): *The Birth of the 'Wage-Curve' in Hungary 1989-95*, paper presented at "Labor Markets in Transition Economies", Conference at William Davis Institute, University of Michigan, October 1997.
- Köllö, J. & Fazekas, K. (1998): *Regional Wage Curves in the Quasi-Experimental Setting of Transition. The Case of Hungary 1986-95*, ifo Discussion Paper Nr. 47, München: ifo Institut für Wirtschaftsforschung.
- Kornai, J. (1980): *Economics of Shortage*, Amsterdam, New York, Oxford: North-Holland.
- Kornai, J. (1995): "Eliminating the Shortage Economy: A General Analysis and Examination of the Developments in Hungary", in: *Economics of Transition*, Vol. 3, No. 1, pp. 13-37.
- Kovács, R. (1997): *The Effect of Suburbanisation on the System of Municipalities - With Special Regard to Budapest and the Surroundings*, paper presented at "Housing in Transition", ENHR Conference in Piran, Slovenia, September 1997.
- Scarpetta, S. (1995): "Spatial Variations in Unemployment in Central and Eastern Europe: Underlying Reasons and Labour Market Policy Options", in: OECD: *The Regional Dimension of Unemployment in Transition Countries*, pp. 27-54, Paris: OECD.
- Statistisches Bundesamt (1998): *Statistisches Jahrbuch für das Ausland*. Stuttgart: Metzler-Poeschel.
- Szirácski, G. (1988): "Redundancy and Unemployment in a North Hungarian Steel Valley", in: *Labour and Society*, Vol. 13, No. 4, pp. 399-413.
- Van Dijk, J., Folmer, H., Herzog, H. W. & Schlottmann, A. M. (1989): "Equilibrating and Adjustment Tendencies of Inter-Regional Migration: An Introduction", in: Van Dijk, J., Folmer, H., Herzog, H. W. & Schlottmann, A. (eds.): *Migration and Labor Market Adjustments*, pp. 3-20, Dordrecht, Boston, London: Kluwer Academic Publishers.
- Viszt, E. & Vanyai, J. (1994): "Employment and the Labor Market in Hungary", in: *Eastern European Economics*, Vol. 32, No. 4, pp. 5-54.