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## **GLOBALIZATION OF SMALL REGIONS IN HUNGARY**

### **Introduction**

In Hungary – as in other communist countries – severe political, economic and social changes were unleashed from 1989 onwards. The changeover from planned economy to a market economy was rough with dramatic consequences and complete structural changes. At the beginning of the transition the country faced – among others – with high unemployment, high inflation and as prices were freed wide-spread disappointment and gloom. Hungary was naturally different from the developed countries but also different from other centrally planned economies. In the first decisive phrase this gave Hungary a unique feature in the process of transition.

Hungary had a long history of market-oriented reforms. In the year of 1968, the so called „New Economic Mechanism” was introduced with the main aim of overcoming the inefficiencies of central planning. Then, in the year of 1973 Hungary joined the GATT, in 1982 the IMF and World Bank. Another wave of reforms came in the mid-1980s. In 1987 the two-tier banking system was created which marked an enormous step in the direction of modernization. The first democratically elected Hungarian government started its four-year term in May, 1990 with the intention of creating private ownership, free markets and close ties with the European Community. The liberalisation process was advancing at a fast pace and by the end of 1991, around 90 percent of consumer and producer prices were released from government control and subsidies were reduced significantly.

In the first years of transition there was a dramatic shift in the geological pattern of trade from the Soviet bloc to Western Europe which became the main destination for exports and imports alike.

Privatisation was also launched in Hungary. During the transition years the private sector managed to garner a bigger and bigger share of GDP. By 2003, for example, 80 percent of GDP was produced by the private sector. The liberalisation and privatisation were advancing further and it is widely known that Hungary was highly attractive as an FDI destination from the early 1990s. Among the reasons we can find the „first comer” status meaning that Hungary was the first country in the CEE region to liberalize its foreign economic relations and to establish appropriate legal conditions for foreign investors. However, by the mid 1990s Hungary lost its attractiveness and Poland took the lead in the region. The Table 1 and 2 show the flow and stock indicator of FDI between 1990 and 2008 and 2000 and 2008.

Table 1. Flow Foreign Direct Investments in Hungary 1990–2008 (million USD)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hungary	554	1,470	1,477	2,443	1,143	5,103	3,300	4,167	3,335

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Hungary	3,312	2,764	3,936	2,994	2,137	4,506	7,706	7,532	6,088	6,514

Source: KSH 2008.

Table 2. Stock Foreign Direct Investment in Hungary 1990–1998 (million USD)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Hungary	540	2,107	3,424	5,576	7,087	11,304	13,282	17,968	20,733

Source: KSH 2008.

The pace of privatisation in Hungary remained moderate and our country is said to be a „winner” of the transition. In this study I do not want to make a detailed analysis of the transition rather a sophisticated analysis of the globalisation of small regions. There are many scientific papers on the globalisation of counties and regions which show enormous differences between them. The beneficiaries of the transition so far have been the western and central regions around the capital while the eastern and southern ones have been lagging behind. I do not want to augment the number of these studies so I want to take into consideration the small region (Nomenclature of Territorial Units for Statistics, NUTS 4) level.

In my hypothesis I argue that what is typical for larger units (regions, and counties) is also peculiar for smaller regions. Consequently, there are significant differences between small regions as far as development and globalisation is con-

cerned. To carry out my analysis and confirm my hypothesis I make a globalisation (development) index what I intend to present later in my study.

## Methodology

In the Hungarian studies, the researches approach the analysis of development and underdevelopment from many angles. The development of infrastructure (Nadabán 1979), industry (Bartke 1971) and agriculture (Enyedi 1976) used to be commonly applied methods.

The Hungarian Central Statistical Office (KSH) used 9 indicators and aggregated 5 development level type to determine the economic and social development level of statistical and economic regions in 1998. The basic idea was to compare the indicators and the average of rural areas. In 1999 the institution used 19 indicators as a complex index-number to rank the development level of settlements. In this case those settlements were underdeveloped where the complex index-number did not reach the national average.

The degree of differentiation of Hungary's planning and statistical regions and counties can be analyzed by cluster analysis (Molnár 2002) presented a paper in which he conducted settlement-level research and pointed to the developed and underdeveloped counties and regions. In his methodology, a complex development index was defined with the help of cluster analysis and settled a development sequence. We can also find relationship between the development level of small regions and their infrastructure with the help of multivariable statistical methods analyzed the development level in case of settlements in the South-Transdanubian Region with principal component analysis. Others analyzed the evaluation of sustainability at settlement and regional level with a stunning (89) number of variables.

When assessing the degree of globalisation of small regions in Hungary I face several problems. First of all, statistical small regions were created in 1997 and we have no clear picture about the tendencies from the beginning of the transformation. Secondly, there were many changes in the number of small regions with shifting settlements from one to another and even creations and secessions. Today, Hungary has 174 small regions due to the latest revamping in 2007. Thirdly, at small region level it is not easy to find proper indicators for the degree of globalisation. The Hungarian Central Statistical Office (KSH) measures the foreign direct investment (FDI) – one of the most important feature of globalisation – at national and county level only. Previous studies has shown (Antaloczy-Sass 2005) that inflows targeted the capital (Budapest) and western, central regions meanwhile the eastern and southern part of Hungary have lagged behind. Foreign direct investments have brought development and a wide-spectrum of possibilities for certain regions.

My aim in this study is to get a more nuanced picture about transition and globalisation at small region level with data available. I try to make certain ratios

with which a kind of globalisation (development) level can be drawn. I took into consideration 173 small regions because Budapest, the capital shows enormously high ratios in every aspect so it can largely disturb the results.

I use the following 12 variables:

- Population density ( $X_1$ ),
- Proportion of population living in settlement with more than 120 persons/km<sup>2</sup> ( $X_2$ ),
- Population change in the period of 2001–2007 ( $X_3$ ),
- Proportion of gas-heated flats ( $X_4$ ),
- Proportion of flats connected to the water network ( $X_5$ ),
- Frequency of visiting movies ( $X_6$ ),
- Number of shops per 10,000 persons ( $X_7$ ),
- Number of rest-houses per 10,000 persons ( $X_8$ ),
- Number of cars per 1,000 persons ( $X_9$ ),
- Number of trunks per 1,000 persons ( $X_{10}$ ),
- Proportion of flats with cable television ( $X_{11}$ ),
- Number of registered companies per 1,000 persons ( $X_{12}$ ).

After collecting the data I calculated the national average in every case than I compared the small region level data to this average. Then I calculated a grand mean from the means of the 12 different indices.

Unfortunately, I cannot assign a period because there were many changes concerning these small regions. Consequently, I choose the latest possible data (2008). This grand mean could serve as an index of globalisation; the lower the index, the lower the globalisation (development) level. From the indices I made class-intervals and put every small region into the proper interval. Finally, I checked the distribution with the Pearson asymmetry indicator.

### **Small Regions in Hungary**

Regions and smaller units were created in the year of 1997 complying with the EU requirements. Seven regions (NUTS 2) were created and Hungary maintained her county system with 19 counties and Budapest, the capital. At the very beginning there were 168 small regions within counties but now there are 174. (Map 1).

These small regions are far from homogeneous. Differences prevail in their size, population, population density, character and in a host of other features. The attained development level is also a key feature. The today's better integrated and more developed small regions were favoured in the communist times with better infrastructure, population density, human capital and regional development.

Apart from the developed ones, the number of underdeveloped and rural small regions is strikingly high (Baranyi 2007). These areas are the losers of the market orientation because so far they have not been able to attract foreign direct investment and face many negative socio-economic trends. The main aim of the

European and Hungarian rural development policy is to create equal development possibilities for every one, and every areas. As we will see, only some highly integrated small regions can be assigned, while others are still looking for the development possibilities and better market integration (Hardi 2008).

Map 1. Small Regions in Hungary 2010



Source: KSH 2008.

## Results

After calculating the indices of 173 small regions it can be seen (Table 3) that those small regions where the globalisation level is lower outnumber the more integrated ones. The lowest index was 0.2004 while the highest was 2.15 which shows an enormous difference in the degree of globalisation. Using the indices I made class intervals symbolising the higher and higher globalisation levels.

Table 3. Globalisation (Development) Level of Small Regions in Hungary

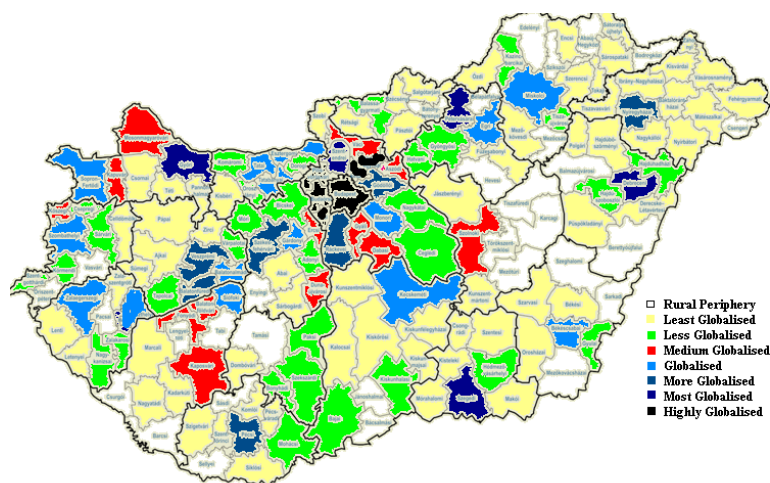
Index	Number of Small Regions
-0,4454	32
0,4455–0,6900	66
0,6901–0,9346	31
0,9347–1,1792	12
1,1793–1,4238	15
1,4239–1,6684	7
1,6685–1,9130	6
1,9131–	4
<b>Total</b>	<b>173</b>

Source: Own compilation based on KSH data (2008).

It can be seen that the second class interval contains the most small regions and combined with the preceding and the following ones the number of small regions represent almost 75% out of the 173. From this point I can claim that the globalisation and integration process in Hungary have brought partial success. The number of really integrated and developed small regions is meagre while the vast majority still faces negative trends and underdevelopment.

Later, with the help of the class intervals, I made a map (Map 1). I used different colours to symbolise the differences between the small regions. The lighter the colours, the lower the level of integration.

Map 2. Globalised and Less Globalised Small Regions in Hungary



Source: Own compilation based on KSH data (2008).

Taking a look at the map gives us plentiful information about the differences in Hungary. So far some western, the capital and the neighbouring small regions have managed to benefit from the globalisation. We can also see adjoining light-coloured regions where several negative factors have determined the development level.

In those small regions where the infrastructure and population density, human development etc. is better, the capability of luring foreign direct investment is also higher and the direct link between FDI and development level cannot be questioned. The eastern and southern regions are rural and less integrated ones with some exceptions (Nyíregyháza, Debrecen, Szeged, Pécs). Their rural and underdeveloped status can be explained because they are far from the main transportation routes, they are mainly bordering with countries outside the Schengen zone further hindering the free flow of labour, capital, goods, and services. In addition, the men-

tioned small regions still feel the depression of the 1920s when they lost their centre of gravity, namely larger towns now belonging to other nations.

Finally, I calculated the Pearson asymmetry of the distribution I found positive (left-sided) asymmetry with the value of 0.5. This justifies my hypothesis in which I argued that lower integrated small regions outnumber the more integrated ones and these small regions are parts of the winner regions of Hungary.

## Consequences and Recommendations

From the results it can be seen, that the market orientation and globalisation so far have not brought equal development for every small region. As previous studies have shown, central and western regions have capitalized more on the transformation. According to my research, this phenomenon is also true at small region levels. Most of the small regions of Hungary benefited far less than the central small regions neighbouring Budapest. From this point, I can claim that the development differences have grown since the political changes took place in 1990. This is due to a host of factors and I would like to highlight just the most serious ones: better infrastructure, abundance of human capital, larger population density (market), Budapest, which is by far the largest city in Hungary. and last but not least better capability of luring foreign direct investment.

As we can see the globalisation of Hungary is far from complete, so in the foreseeable future the integration of other small regions is desirable. With development and integration, the gaping differences can disappear not to mention the levelling-off standard of living. In this question the government, the local governments and the development policies play the crucial role. They have to recognize the importance of the total integration because so far the transition has brought huge differences in many factors.

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