Competitiveness of the Hungarian regions

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Abstract

The present paper explores the competitiveness of the Hungarian counties (NUTS III) and regions (NUTS II) in two dimensions: in national scale and in European comparison. Competitiveness has been expressed by three interrelated economic parameters: a) per capita GDP; b) labor productivity; and c) employment rate.

The paper concludes that regions in Hungary have reached three different stages of economic development. A) Budapest Metropolitan Region (BMR) is a foremost growth pole of the country. It is a real knowledge based and innovation generating economic region. B) North-western Hungary is in the stage of investment led development having a knowledge user economy without generating it locally. C) Northern and Eastern Hungary is in neo-Fordist stage of economic development, where economic restructuring just started; under-employment and rural crisis are widespread, with an exception of some larger cities. In EU accession countries, BMR is a most competitive region, second only to Prague Agglomeration, whereas Eastern and Northern regions of Hungary have a weak position economically.

Keywords: competitiveness, regional inequalities, comparison of EU regions

Introduction

During the last few years both research and economic policy making have shown an eager interest for regional competitiveness. “Competitiveness” has become the magic world for explaining or planning economic success for micro-economic (enterprise) and macro-economic (national) levels since long, although there have been hot debates about the content and measurement methods and one could not easily apply them while analyzing regional competitiveness. Even the definition of “region” is problematic; and, certainly, regional competitiveness is not a simple sum of competitiveness of firms, located in a given region, or a fraction of national competitiveness.

Growing interest in Europe for regional – and urban – competitiveness may be explained by the strength of the sub-national territorial units in the EU cohesion policy. Mitigation of regional inequalities has been one of the most

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important goals of the policy of the Community from the very beginning. There is a general consensus, that regional leveling may be served best by the improvement of competitiveness of less developed regions. Nevertheless, a number of questions are still open. Even the notion of regional competitiveness has been denied by an important author (Krugman, P. 1994), whereas the goals and the conditions of the competitiveness and its measurement have had different (even divergent) explanations (Porter, M.E. 1998).

The problem is alive for Hungary, as well as for the other accession countries, after they entered into the European Union (EU). Although the country’s economy was relatively open even within state socialist system\(^2\), regions competed rather for state subsidies, than improved productivity or export capacity of their economy. This practice has changed only slowly during the transition period. Presently, Hungarian regions entered fully into the market competition, at least within the EU, and their competitiveness has become crucial.

This paper has three parts. In the first part an attempt is made to define the content and the measurement methods of regional competitiveness as it has been treated and used in our research. The second part describes the elements of competitiveness of the Hungarian regions. In the third part this competitiveness is summarized on country and EU levels, with an outlook for the future development.

**Definition and measurement methods of regional competitiveness**

During the last decades, competitiveness has become the panacea for backwardness, regional inequalities, for declining economic performances. Although the repetition of fashionable terms may have exaggeration, there is no doubt that – as a consequence of globalization – all sort of economic units, from an individual firm to transnational integrations of countries, compete with each other for markets, capital goods, innovations, qualified manpower etc. The ultimate goal may simply be economic growth, or rising profits or improvement of the general well-being of a given country, region, or city. Global competition has produced growing inequalities so far, since prerequisites for the success in this competition show strong geographical disparities. It has also produced a few spectacular catching-up successes e.g. in South Eastern and Eastern Asia. Consequently, in the spirit of neo-liberal economics, the advice for lagging countries, regions or marginal people voices: be competitive.

\(^2\) In 1968, a profound economic reform abolished the central planning directives and introduced a number of market elements into the economy. Nevertheless, the overwhelming size of state ownership in economy, the state interventions in price formation and investment had made this market an imitated one Kornai, J. 1992).
Regional policies are intended to enhance regional competitiveness (e.g. by infrastructure development), whereas social policies are purposed to develop competitiveness of persons (e.g. by continuous education).

There is no general consensus about what regional competitiveness means. The European Commission interprets the term the following way: [Competitiveness means] the ability to produce goods and services which meet the test of international markets, while at the same time maintaining high and sustainable levels of income or, more generally, the ability (of regions) to generate, while being exposed to external competition, relatively high income and employment levels... (European Commission, 1999. p. 4). Lengyel, I. quotes the European Competitiveness Report (Lengyel, I. 2004 p. 326): “Competitiveness... is understood to mean a sustained rise in standard of living a nation and as low level of involuntary unemployment as possible.” It is conspicuous how social solidarity is deeply embedded in European mentality. When “competitiveness” did replace “leveling” in regional policy, it suggested that the welfare state is over. Still, the definition of competitiveness contains welfare elements. The nostalgia for egalitarianism is especially strong in post-communist societies where sudden switch to the market economy made social security fragile (Horváth, G. 1999).

Some authors – Krugman, P. (1996) being their emblematic figure – refuse to adopt competitiveness (originally applied for firms, on micro-economic level) on national or regional scale. He argues that no analogy could be made between a nation (region) and a firm. Firstly: an unsuccessful firm will go out of business, what is never to happen with a country (or region). Secondly: success of a firm will often be at the expense of another one, whereas competition between countries might be mutually advantageous.

Porter, M.E. who has been the most frequently cited in writings about competitive advantages, suggests that the best measure of competitiveness is productivity. “The competitiveness, then, is measured by productivity“ (Porter, M.E.–Ketels, C.H.M. 2003, p. 7 cited by Gardiner, B.–Martin, R.–Tyler, P. 2004). As it is assumed by the author of the present study, this view restricts competitiveness to the market of goods whereas there are firms (regions) competing for tourists, capital investments, for attracting foreign students to their universities, etc. It means that competitiveness cannot be measured by a single figure or factor; there are different goals to compete for.

Certainly, speaking about regional competitiveness is a sort of simplification. A region is not a competing unit – it is the firms located and institutions operating in the regions that take part directly in competition. There are unsuccessful firms in a prosperous region, as well as poor schools in a rich city. The term “competitive region“ means that the region has a number of local factors favourable for successes of firms and institutions. There is a long list for such factors from developed infrastructure to skilled manpower, from
modern (at present knowledge-based) sectors to traditional and specific skills, from innovation capacity to flexible specialization etc. Competitiveness is not just an economic term, but it is a socio-cultural concept as well.

Competitiveness has a meaning of comparison. A competitive region should offer comparative advantages for its firms or institutions (or for its inhabitants). In order to make comparison, elements of competition should be quantified: competitiveness should be measured on regional level. It is not a simple task: one should select the directly measurable elements (many important social factors are not quantifiable, e.g. handicraft traditions), and even these measurable elements should have comparable data for all the territorial units and all the years in investigation. Evidently, a more detailed data set was made available for measuring regional competitiveness within Hungary, and a basic one for making international comparison. First we shall focus on analyzing the process of regional differentiation within the country; then we shall compare the competitiveness of Hungarian regions to the EU-15 regions.3

The territorial unit of our analysis will be the county, the sub-national territorial unit of public administration (NUTS-III). Hungary has 19 counties + Budapest; they have a long traditions (like voivodeships in Poland) and their territory has remained unchanged during the socialist period – the only exception among former communist countries. Hungary has 7 NUTS-II regions, mostly for the purpose of EU regional statistics, more recently, as territorial units for the 2007–2013 development planning – but these regions have neither elected government units, nor financial resources of their own. Presently, after many aborted programs of territorial reforms in public administration, these NUT-II regions are rather units for central budget redistribution, and their institutions (e.g. regional development agencies) are those delegated from the central government. The advantage of the use of counties instead of NUTS II regions is that their analysis provides a more detailed geographical picture of competitiveness.

Competitiveness will be expressed by three interrelated economic parameters of the region:
- per capita GDP;
- labour productivity;
- employment rate.

These indices fit in the EU definition for competitiveness, quoted above. This is a simplified approach about competitiveness, but its elements have appropriate data and make the substantial comparison of different territorial units possible. For a more sophisticated model of competitiveness (the Pyramide model) see Lengyel, I. 2004.

3 The use of EU-15 average in comparison is justified by the fact that most of the data refer to 2001; and the catching up to the average of the EU-15 has been the target of the economic policy since 1990.
Competitiveness of Hungarian counties I: Basic elements

*Per capita GDP* is a most suitable parameter to characterize economic output and growth, the performance of a given county. In Hungary, the GDP has been recorded on county level since 1996. The last data available at the time of our research were from 2001. Thus, these five years were compared; incidentally, these five years represent a distinct period in our post-communist economic history.\(^4\) The GDP was calculated on purchasing power parity (PPP).

All of the counties produced growth between 1996 and 2001. Growth was especially dynamic in a group of seven counties (including BMR). They produced a clear catching up with the EU (see *Table 1, Fig. 1*), their growth being much faster than the EU-15 average. Even slowest counties have produced the EU average (even though they were not able to improve disadvantageous position). These seven counties form an explicit geographical cluster: six of them are located along the Budapest–Vienna and Budapest–Balaton axes. Budapest experienced the most spectacular growth: the capital city is the only international metropolis of the country. The city has proven to be a strong attraction

\(^4\) 1990–1993 was a period of rapid collapse of the state economy (with a 30% drop in GDP); 1993–1995 were the years of overall privatization and a substantial economic restructuring, whereas in 1996 a spectacular growth started, having slowed down after 2001.

*Fig. 1. Per capita GDP as percentage of EU–15 average (2001)*

![Map of Hungary with counties colored according to GDP percentage](image)
Table 1. Per capita GDP by counties and NUTS II regions compared to the average of EU–15

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<thead>
<tr>
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<tr>
<td>City of Budapest</td>
<td>86</td>
<td>108</td>
<td>+22</td>
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<tr>
<td>Pest</td>
<td>34</td>
<td>44</td>
<td>+10</td>
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<tr>
<td>Central Hungary</td>
<td>68</td>
<td>84</td>
<td>+16</td>
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<tr>
<td>Fejér</td>
<td>48</td>
<td>54</td>
<td>+6</td>
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<td>Komárom-Esztergom</td>
<td>42</td>
<td>49</td>
<td>+7</td>
</tr>
<tr>
<td>Veszprém</td>
<td>38</td>
<td>44</td>
<td>+6</td>
</tr>
<tr>
<td>Central Transdanubia</td>
<td>43</td>
<td>49</td>
<td>+6</td>
</tr>
<tr>
<td>Győr-Moson-Sopron</td>
<td>52</td>
<td>63</td>
<td>+11</td>
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<td>Vas</td>
<td>51</td>
<td>53</td>
<td>+2</td>
</tr>
<tr>
<td>Zala</td>
<td>44</td>
<td>45</td>
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<td>Western Transdanubia</td>
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<tr>
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<td>+4</td>
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<td>Tolna</td>
<td>42</td>
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<td>+2</td>
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<tr>
<td>Southern Transdanubia</td>
<td>37</td>
<td>40</td>
<td>+3</td>
</tr>
<tr>
<td>Borsod-Alaúj-Zemplén</td>
<td>33</td>
<td>34</td>
<td>+1</td>
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<tr>
<td>Heves</td>
<td>34</td>
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<td>+6</td>
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<tr>
<td>Nógrád</td>
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<td>30</td>
<td>+3</td>
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<td>+3</td>
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<tr>
<td>Szabolcs-Szatmár-Bereg</td>
<td>28</td>
<td>30</td>
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<tr>
<td>Northern Great Plain</td>
<td>33</td>
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</tr>
<tr>
<td>Hungary</td>
<td>47</td>
<td>53</td>
<td>+6</td>
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Source: Lengyel I. (2003, 311 p.).

for transnational corporations, and it has had a leading role in R&D and high level business services since long. Per capita GDP made up 86% of the EU-15 average in 1996 and it rose to 108% by 2001. The second most developed county produced but 63% of the EU-15 average. Consequently, Budapest and a few developed counties have played an outstanding role in economic growth of Hungary. The less developed counties showed a distinct geographical clustering, too: with two exceptions all they are located either in Northern Hungary (in a region what suffered most from the decline of the traditional heavy industry) or on the Alföld (Eastern Hungary), a traditional rural area. The East/West divide of the country survived and became more accentuated. The poorest counties reach but 30% of the EU-15 average in per capita GDP.

The six-year period of the rapid growth examined saw increasing regional inequalities. Some developed counties grew faster, while backward
areas kept falling behind. Budapest is out of comparison: the BMR represents another category than the rest of the country. As far as the counties are concerned: the most developed one has a per capita GDP 2.8 times higher than the less developed one in 2001 (there was a 2.6-fold difference in 1996). The gap is widening between the most developed and handicapped counties; moreover, due to EU membership a further growth of disparities is expected. Most probably, the developed counties will be able to benefit from EU structural or cohesion fund resources more than less developed ones will. (Enyedi Gy. 2004). Also, less developed rural counties in East Hungary will suffer strongly from market competition within EU, because of their poor economic performance. Rural policy after the systemic change has been full of improvisations, it has had more welfare character instead of economic rationality and has tried to satisfy the alternating interest of different pressure groups. „Regional leveling” has been a favourite slogan of different political parties in the period of political campaigns; but no government could diminish regional differences in standard of living while the gap is widening in competitiveness.

*Productivity,* the economic output calculated for a working hour, or the GDP per active population represents another important element of competitiveness. Active population means those persons between age of 15 and 64 years who are employed, sole proprietors, cooperative members, entrepreneurs or (in case of agriculture) helping family members. It is worthwhile to distinguish between the output (GDP) per total population and per active earners. High productivity is a fundamental element of competitiveness and a long-term growth. One could produce growth in the case of low productivity and a massive employment of cheap labour (this is the case in developing countries and this was the case at the time of hasty “socialist” industrialization during the 1950s and 1960s). This sort of development supposes low-standard technology and traditional economic structure – both an absolute handicap in present-day European competition. In Hungary, the productivity has improved quite impressively, due to rapid economic restructuring and technology transfer, and a drop in employment rate.

Not surprisingly, regional inequalities have a similar spatial pattern than that of per capita GDP, but they are less polarized (*Fig. 2*). In 2001, the productivity value (i.e. GDP/ active population) in the eminent county was 1.7 times higher than in the least effective one (in 1996 there was a 1.5-fold difference). Over the period in concern productivity improved by 31% in Hungary, led by the most developed counties (BMR: 48%, Győr-Moson-Sopron County: 46%) thus the gap was widening between the leading counties and the rest of the country. At the same time, in this “rest of the country” some levelling trends could be detected: there were counties in Western Hungary where progress had slowed down, while some backward areas were able to improve their position in ranking.
Finally, employment rate is the third basic element of regional productivity. Central Statistical Office has calculated the employment rate on the 15–64 years age group. Employment rate in Hungary is one of the lowest in Europe. Unemployment rate is not particularly high – around 6%, which remained stable during the past years – but there are many people in active age being outside of the labour market. Besides general tendencies – e.g. aging population, growing number of university students – it is the exceptional fast economic restructuring and privatization in post-socialist Hungary that may explain this situation. Employees of the collapsing state owned heavy industry and mining were offered early retirement, because they had no chance (over 40) to be retrained or to find new employment. So many people escaped unemployment by disability retirement. Although middle aged males have had poor state of health, indeed, massive disability retirement used to be an – officially never declared – form of social aid. In the less developed counties, the share of disability pensioners of the active age (under 64) population is over 10%, whereas in Western Hungary is around 5%.

Another explaining factor of under-employment is the way of land re-privatization in agriculture in the early 1990s. It was a rather complicated process with the final outcome of an excessively fragmented pattern of land ownership. A part of the old-new owners (most of them left agriculture during the decades of the state socialist system) simply let their land to rent by
larger farms and they subsist on the rent, without having any registered occupation. Finally, in certain sectors illegal and non-registered employment is also important, either in the widespread black economy in general, or in the most developed north-western region in particular, where there is an extensive commuting of workers from Slovakia.\textsuperscript{5}

Employment rate has improved in every county between 1996 and 2002, but in most of them it had been a slow process. Regional inequalities have been rather stable as less developed counties did not succeed to enlarge job opportunities. The impressive per capita GDP growth was due to the improved productivity – good news to the economists – but it was not accompanied by a tangible enlargement of employment – bad news for social policy. Despite the decline in the number of the total population, Hungarian labour economy has not yet recovered from the consequences of over-employment in the state socialist system and of the collapse of the state economic sector during the transitional crisis.

The geographical pattern is as usual: the north-west of Hungary excels in high employment rates (56–57\% of the active age group), whereas the north-east represents another extreme (40–42 \%, \textit{Fig. 3}).

\textit{Fig. 3}. Employment rate (employed population in percentage of active age i.e. 16–64 – year population) 2002

\textsuperscript{5} Building industry is the largest employer of the „black” manpower: to a great extent they are immigrants – first of all from Romania – without working permit. Commuters from Slovakia are legal, but they are not registered in Hungarian population statistics, thus they are not calculated in employment rate either.
Lengyel, I. (2003) in his excellent monography presents a detailed analysis about different factors that influence regional competitiveness. He explains that the findings of the analysis of key factors – namely that the remarkably improving economic performance of Hungary is practically due to 4–5 counties out of the 20⁶ – “have an ex-post character, they measure competitiveness, but they do not explain which are the factors to define the level of and changes in competitiveness” (Lengyel, I. 2003 p. 329). Also he analyzed five other factors suitable to explain the regional differences in competitiveness. Based on his analysis four influencing factors are to be discussed. They are as follows: (1) Capital investment attraction both from abroad and other regions. In Hungary, foreign capital investment has played a decisive role in economic restructuring. Two-thirds of these investments was directed to the BMR.⁷ These investments are present in the high-tech, R&D, banking and in high level business sectors etc. In north-west Hungary, manufacturing industry was the main target for foreign direct investment (FDI). In the less developed regions foreign capital was mostly invested in public utilities (electricity, gas, sewage supply). These sectors have no multiplying effect on local economy, thus they do not stimulate economic growth. (2) Infrastructure and human resources. With regard to competitiveness infrastructure has a very broad meaning: accessibility of motorways in physical sense and Internet availability in terms of information are perhaps the most important features. Bulk of FDI has flowed to establishments located along the Budapest–Vienna motorway. The network of international motorways is focused on Budapest, they offer a fast connection to Northern Italy (via Croatia) and to the West Balkans, but they have not yet reached the Ukrainian border. There is a low PC supply and inadequate Internet accessibility in the households of the contry, with Budapest being the only exception. Internet fees are too high for being afforded by an average household. The concentration of modern infrastructure is even higher in the BMR than that of economic activity. Concerning human resources, our interest is reduced on measurable elements, mostly on education and age structure. The quality of human resources is very much influenced by “soft” features like traditions, business culture, work ethics etc. which are essential factors in more detailed regional studies – but they are not quantifiable the same way as economic or demographic factors. As far as the level of education is concerned, its geographical pattern does not follow the well known north-west/ north-east dichotomy. The position of Budapest is absolutely privileged: one quarter of the population over 25 years has a degree of higher education: the

⁶ 19 counties and the BMR.
⁷ In reality, this share is smaller, but no data available concerning outsourcing by TNCs located in Budapest (including geographical distribution of the outsourced activities).
second highest value is its half (12.5%) in Csongrád County located in the less developed southern part of the Alföld. Budapest has a post-industrial, metropolitan economic structure with a large labour market for highly qualified persons. There are no important differences in the level of education between the counties: economy of the most developed ones (in term of per capita GDP) is based on manufacturing industry with a relatively low demand on cadres with finished higher education; at the same time, less developed regions east of the Tisza river traditionally have good schools and universities. Because of the low geographical mobility human resources are under-utilized in Eastern Hungary – perhaps providing reserve for the future development.

The geography of aging has its own spatial pattern, which does not follow the traditional west/east divide. The aging index (i.e. percentage population over 64 or elder of that under 14) is far the highest in Budapest; at the same time the outer zone of the BMR has the second youngest population in the country (Fig. 4). It means that Budapest follows the demographic pattern of the cities in developed countries: suburbs house young and middle aged families with children, whereas the city centre is settled by young professionals without children and by elderly people. The presence of a large group of young, educated, partly multinational professionals is an important asset of the city’s booming economy. At the same time, most of the aged population live among fragile life conditions, because of the devaluation of the retirement pensions since the 1990s. During the communist era, aged persons had no opportunity

Fig. 4. The aging index, 2002
to save for their after-retirement life and now in many cases high age means poverty and marginality, a drop-out from the middle class. Aging is present in some less developed counties as well, but rather in the south and not in the east of the country. Less developed counties have a relatively sizable rural population, what is aged in most cases because of the earlier out-migration of young population. The north-east (comprising the most backward rural areas) shows a young age structure, because of the relatively high proportion of Roma population. Romas traditionally have a higher fertility rate, than the Hungarian population, and their life expectancy is lower. (3) Research and development It is not surprising that this sector, the primary factor to promote innovations and competitiveness in a knowledge-based economy, is concentrated in Budapest. Two thirds of the employees of the R&D sector work in the capital city: the otherwise developed north-eastern counties have a rather low research potential. In 2002, almost 90% of the patents registered abroad were produced in Budapest research institutions and laboratories. Outside Budapest, there are few developed R&D “islands“ mostly related to the best universities (at Debrecen and Szeged). These R&D centres have but a limited impact upon the development of their regions: the universities have no full faculties of technologies, and Hungarian enterprises which operate in these less developed regions are not innovation oriented. One of the drawbacks of the Hungarian R&D sector is that the major part of its scarce financing⁸ comes from the state budget. Hungarian enterprises have business policy for a short perspective: TNCs which dominate the economic scene have their research units abroad – with the exception of some favourable cases. In sum: BMR is the only sizable centre of R&D in the country. (4) Small and medium sized enterprises (SMS). There are only few Hungarian TNCs, e.g. MOL, the petroleum company, or OTP Bank. They have built up a Central European network, but most of the enterprises in Hungarian ownership belong to the category of small and medium sized ones.⁹ Their financial capital and export activities are concentrated at Budapest; otherwise the geographical distribution has a rather uniform pattern. SMEs operate mostly in local markets, they do not contribute tangibly to the competitiveness of their region. Nevertheless, their role in employment is quite important: in the less developed counties they provide jobs for a combined 60–70% of the workforce in the production and production services sectors. Hungarian economy has a dual character: the rapid penetration of TNCs modernized the Hungarian economy rapidly. They produce over 70% of export, but their decision-making centres are evidently outside of Hungary, and their employment capacity is relatively low. At the same time the SME sector being dominated by Hungarian capital is less innovative, and its long-term prospects

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⁸ Expenditures for R&D amounted to a mere 1.3% of the GDP in 2002.
⁹ Because of the geographical proximity, Austrian and German SMEs also operate in Hungary.
in the present structure are ambiguous, even though they have a considerable weight in employment, especially in the less developed regions. Although the relationship between these two sectors – due to the expanding outsourcing of TNCs – is strengthening, they are still but loosely linked.

**Summary**

(1) *Competitiveness within the European Union.* There is a certain gap within the European Union between former members and accession countries. On country level, Portugal, the less competitive country in EU–15 is headed only by Cyprus; Malta and Slovenia are on the same level as Portugal. They are followed by the Czech Republic and Hungary. Closing the gap seems to be a difficult and long term task, especially if taking into consideration that new member countries could reach just the fragment of financial sources that were earlier available for the Mediterranean half-periphery. On NUTS 2 level, Budapest Metropolitan Area is on the top of the accession countries, together with Prague, Cyprus and Bratislava. All the other Hungarian NUTS 2 regions are among the average of the accession countries except North-west Hungary (8th among regions of the new member states). Even though there has always been a concern about regional inequalities within Hungary, these differences are not striking in European comparison. Competitiveness of the BMR is close to the EU average, North-west Hungary has a relatively favourable position among new member countries, but all the other Hungarian regions have a weak competitiveness.

(2) *Competitiveness within Hungary.* Geographical differences in competitiveness were analyzed earlier. Very probably they show more than higher or lower degrees of competitiveness. Actually, three different stages of development are present in Hungary (Enyedi Gy. 2000; Lengyel, I. 2003). A) BMR is a prominent growth pole for the country. It is developing into a real knowledge-based and innovation generating economic region: there is an important R&D sector including research units of TNCs; a number of regional (Central European, in some case European) company headquarters are located here; high level business services are widespread. B) North-western counties are in the stage of investment led development; their economy uses knowledge without generating it locally. There are a number of newly developed plants in manufacturing and high-tech industry, invested mostly by TNCs, but they are not yet firmly rooted into local economy. Further development – i.e. switch into the knowledge producing phase depends on how outsourcing will be able to integrate new investments into regional economy, and how the weak R&D sector will be strengthened. Central and South-west Transdanubian counties have the same character, in an incipient, less developed form. A and B types are more or less integrated into the European urban/economic networks in various respects
(financial, transport, production, social values etc). Budapest and its region had presented a higher stage of urban/economic development during the whole period of modern urbanization than the rest of the country. C) Northern and Eastern Hungary comprising 12 counties altogether form the “third” Hungary located east of the Danube. They are in neo-Fordist stage of economic development, when economic restructuring just started and there is a certain hope that newly attracted investments in manufacturing industry would be able to solve the problem of under-employment and the rural crisis. Evidently, this huge area – half of the country’s territory – is not homogeneous; larger university towns – Debrecen, Miskolc, Szeged – form a couple of islands of modernity. They have a limited spill-over effect upon their regions: they rather produce knowledge that will be used in the more advanced regions (Fig. 5).

(3) Competitiveness of regions: future trends. Geographical differences in economic competitiveness of Hungarian regions have been shaped for long and within the state boundaries of the country. In 1972, Research Institute of Central Planning Board calculated the per capita GDP by counties. The geographical distribution of the most and less developed counties – and the difference between them – practically was the same than 30 years later. (The only important difference was due to the decline of the mining and heavy industry in Northern Hungary.) Whenever a new economic or technological stage

Fig. 5. Stages of regional development. – A = knowledge-based stage; B = investment led stage; A + B = integrated into global networks; C1 = signs of catching up; C2 = neo-Fordist stage, local economy; D = modern „islands”, transborderties
of development started to spread from the European core area towards the semi-periphery, it was always Budapest urban region the first and North-west Hungary the second of the regions to adapt innovation and to extend it to the rest of the country. After 1989, international influence became much stronger, as a consequence of the dissolution of the state socialist system and that of the advancement of globalization: but the geographical picture has not changed. As it is assumed by the author, EU membership of Hungary may change this long lasting tendency for two reasons. a) Hungarian regions became a part of the united European market, thus they are forced to compete with all the European regions, without the slightest possibility for state protectionism. Hungary shall learn in the near future, how competitive advantages within the country may be converted onto European scale. Most probably, competitiveness of Budapest is not in danger what may further strengthen the advantage of the capital city region. b) In a longer run, transboundary cooperation may lead to the formation of international regions. This may affect the whole regional structure of the country substantially for out of the 19 counties 15 have state border. The relatively small country (93,000 km² – the size of Portugal) has seven neighboring states. Five of them – Austria, Romania, Slovakia, Slovenia and Romania – are EU members, and Croatia will hopefully join the Union in the near future. There are potentially good opportunities for the formation of transnational regions (a closer integration, than the present day Euroregions) what may put less developed Northern and Eastern Hungarian counties into a more favourable position than they have today. Cities in Eastern Hungary could acquire gateway functions towards South Eastern Europe which may speed up their post-industrial development.

Hungarian economy was hit rather seriously by the present global economic crisis. Budget deficit and foreign indebtedness allow but a limited opportunity for government financial intervention to stimulate market demands. The high share of TNCs in industrial and financial sectors means that fundamental decisions on the level of enterprises are taken abroad. At the time of writing of this paper, nobody could tell how long this crisis is to last, how and when the recovery will begin. Maybe the content of competitiveness shall be modified and neo-liberal economic policy revised. Most probably, the crisis will enhance regional inequalities as the recovery will start in the most advanced regions and we can expect a longer crisis in backward regions.

REFERENCES


