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Changes in the position of Hungarian regions in the country's economic field of gravity

by

Gábor Nagy

Models of uneven spatial development

Studies and models bringing spatial polarisation into the focus of economic studies entered the mainstream of regional research in the 1950s. The school of thought associated with Gunnar Myrdal (1957) asserts that spatial inequalities persist and differences grow through imbalances that exist between the individual regions already at the outset, cumulative impacts, causal chains and the persistence of spread and backwash effects. Paul Krugman (1991), the father of the so-called new economic geography also belongs to this school of thought. His theory means a step forward relative to Myrdal's, as it provides an explanation for the emergence of and increase in spatial inequalities as well as the evolvement of a special regional economic character even when there are only low level initial differences. It attaches critical importance to the role of agglomeration economy and is able to tackle the impact of state economic policy. The downside to the model is that it rules out technological externalities, ignores innovations and provides only a sketchy outline of the process of economic growth.

In contrast, another group of researchers (Rostow, 1960; Friedmann, 1973; Richardson, 1980) claim that those significant regional differences which arise as a result of the adoption of the capitalist mode of production become less marked as mass production and welfare become common, and that regions, deeply embedded in national economies and on a more or less similar level of development, emerge. The main underlying idea of the models is the continuous presence of those spread effects that first facilitate the evolvement of strong economic agglomerations, and then play a key role in the creation of spatial cohesion and equalisation.

While advocates of the above models argue that spatial equalisation materialises through the spontaneous movement of market forces, economic experts in favour of the theory of growth poles (Perroux, 1955; Paelinck, 1965; Pottier, 1963; Boudeville, 1966; Lasuén, 1969) are unified in their opinion that an active government policy is crucial. They claim that sectoral growth poles can emerge even in economically disadvantaged regions, and add that the development of wider regions can be stimulated by the impact of regional multipliers. Analysing the examples of developing countries, Lasuén (1973), however, points out the role of artificial growth poles in the emergence of a dual economic structure and a disproportionate spatial structure that becomes fossilised in the long run. What critics of the theory of growth poles contest is not this, but rather the strength of the development link between growth poles and their 'hinterland' as well as the actual effect mechanism of an incubated core of development. The identification of the flaws in the theory encouraged the formulation of the theory of innovation-oriented development, on the one hand, and that of endogenous development, on the other. Although development concepts¹ based on the theory

¹ They found their purest form in the National Regional Development Concept (1999).

of growth poles crept in regional policies in Hungary in the 1990s, their implementation was, however, only partial due to scarcity of capital.

The innovation-oriented school of thought embraces Schumpeter's propositions (1980); however, it also goes further and addresses the issues of a systemic approach to innovations (Edquist, 1997), an evolutionist approach to the national systems of innovation (Nelson, 1982) as well as the possibilities and limitations of interactive learning processes (Lundvall, 1992). For the purposes of this paper the importance of the neo-Schumpeterian school of thought lies in the fact that it can identify the regional systems of innovation that coexist with a global system of innovations, from which it can infer geographical specialisation on a regional scale.

Models of development based on internal resources underwent significant development between the 1970s and 1990s. While initial theories hoped for almost automatic development and convergence through the enhanced exploitation of internal resources and the novel combinations of their utilisation, the past decade has been characterised by a new perception of technological knowledge and an unambiguous abandonment of neo-classical theories. According to Romer's interpretation, (1994) the spatial distribution of knowledge (including its hidden components) is uneven, the possibility of its spatial transfer is limited and an exchange of expertise and experience personally is of key importance. The emergence and persistence of spatial inequalities in an imperfect competition is inevitable. However, as basis innovations change, so some places and regions, through rapidly activating the hidden components of knowledge, may be successful also over a longer term, while others may lose their existing competitive edge, believed to be long-term earlier, under a new economic paradigm.

Centre-periphery models seek to describe the system of spatial differences on a global economic scale. While Wallerstein (1974) uses a dual model that provides an academic abstraction of the evolution of the modern global economic system in order to present the trends under review, spatial research made its mark by modelling dependence at a whole-economy (Friedmann, 1966) and settlement level (Haggett, 1983) as well as flow-induced dependence (Dicken, 1992). The last type adopts a novel approach to how spatial differences become entrenched, while not ruling out the simultaneous emergence of trends towards concentration and deconcentration (decentralisation). Under this approach, regional networks are instrumental in the creation of a complex spatial structure and geographical differentiation. Another key components are urban regions, particularly the classic core regions.

The globalisation theories of the 1990s also help to acquire a better understanding of current trends in Hungary. Scott's theory on regions that are engines of economic growth and their 'hinterland' which are capable of progress (1988) can be applied to the European Union and Hungary relatively closely. Hamilton's interpretation of globalisation (1999), according to which, '*... [it is] a series of processes that provide a forum for key participants' securing their interests and for the implementation of their ideas about space*', helps to understand the behaviour of foreign capital in a Hungarian context. This interpretation is further expounded by Dicken (1992), who discusses changes in the priorities of corporate strategy building and more specifically the optimal scheme of corporate governance adopted by multinational companies². Knox and Agnew (1998) make it clear that there is a tough spatial competition for investment funds, in which the competitiveness of regions (i.e. areas and settlements) must be proved continuously.

Porter's theory on competitive development as a theory on regional competitiveness (1996) combines the main findings of the theories on agglomeration economies, growth poles

² In analysing motives for FDI, Dunning's eclectic theory (1988) offers similar conclusions.

and economic bases. The basic unit of his model is the regional economic cluster with low transaction costs, high synergies and mostly outstanding development determinants. However, it does not interpret the development outlook for regions that have no or hardly any development determinants, are only loosely connected to global competition and struggling technologically. It offers continuous productivity growth as its fit-for-all panacea, which presupposes that manufacturing tradables are produced for export in a high employment environment.³

Our hypothesis was: the 15-year-long period of regime change development of the Hungarian economy was fundamentally determined by a steady rapid increase in spatial differences and, hence, growing inequalities between the individual settlements and regions.

Spatial inequalities at the time of the regime change

The fundamental characteristics of state socialist economic control were the mitigation of inequalities on the regional (primarily county-) level and spatial equalisation. Consistent with the ideological system of the regime, this was implemented mainly through the centrally controlled location of industries, initially (between 1965 and 1975) as a result of direct government decisions⁴, later (i.e. after 1975) indirectly, through allowing for the spatial preferences of state-owned large industrial companies.

This led to significant reduction in spatial inequalities on the regional levels under review (i.e. planning/economic regions and even more importantly counties) and in the dimensions under review (i.e. fixed investment developments, output indicators, fixed assets, income and employment). However, a number of insidious trends also emerged which later added to spatial inequalities. One was that marked disindustrialisation⁵ led to the post-industrial development of Budapest⁶, which proved to be a structural advantage over the countryside after the regime change. Another was that an industrial belt (the so-called industrial axis) stretching in a North Easterly–South Westerly direction inside Hungary, which was the primary destination of industrial fixed investment⁷. (Figure 1)

Key economic actors in the rest of the country included, almost invariably, industrial sectors satisfying local needs, labour intensive manufacturing sectors (food and light industry, especially, textile and clothes industry employing unskilled female labour) and local branches of large companies. Such local branches were a typical form of large socialist companies. Relying on one single resource, i.e. available labour trained to perform one single task in the production process, they were, in fact, the local units of production of large companies in

³ Since the ‘cultural turn’ of the 1970s, a new paradigm in geography arised which reject spatial models due to their mechanical nature and formalism. It is new social geographical streams (i.e. behavioural approach, humanistic and radical geography) that criticise these models the most adamantly. Their most frequent objection to them is that they ignore real space and the scale of spatial processes. (Martin, 1999)

⁴ Although MSZMP KB (the Central Committee of the Hungarian Socialist Workers’ Party) passed a resolution on the industrialisation of the countryside in as early as 1958, its implementation only began in the mid-1960s.

⁵ In the mid-1950s, despite the first massive wave of construction of large industrial centres, the share of the capital city in industrial wage earners still exceeded 40%, while its population accounted for a mere 19% of the country’s population. When the process came to an end in the early 1980s, corresponding figures were 28%, and 20% respectively.

⁶ It is safe to say that the early 1980s saw the beginning of a process in which the development of the dynamic space of the capital city and that of the provinces ran separate courses. The former was boosted by the services sector, the latter by the prevailing engines of growth in manufacturing.

⁷ As increase in the volume of housing construction and the development of institutional and infrastructural networks and welfare systems were closely linked up to industrial fixed investment projects at the time, securing a high-profile government-funded investment project provided an excellent opportunity for the development of the settlement concerned and its region.

economically backward (or, according to the prevailing system of values, under-industrialised) regions of the country. Neither qualified management, nor an efficient and experienced administrative staff was available at these branches. Nor were any powers of decision-making delegated to them. After the regime change large state-owned companies divested these branches, the majority of them were unable to survive under market economy conditions. By contrast, core-companies managed to remain in business through considerable sacrifices.

Settlement-owned businesses and non-agricultural arms of co-operatives were established to employ permanently or seasonally available labour in local economies. The former were set up to implement the development-related tasks of local councils. Most were able to grow under quasi-market circumstances prior to the regime change. Later they were privatised predominantly by resident private individuals. Some economists seemed to identify a nascent hinterland industry in this group of viable businesses. Illusions were shattered by the regime change.

The majority of former self-employed craftsmen had to work in cottage industry and small industrial co-operatives. Evoking the model of the Third Italy, the successful ones are still in business, producing specialised high quality commodities. Those that proved unfit for long-term operation either went out of business or their employees became self-employed again (or formed minor business partnerships).

As was pointed out by economists and regionalists at the time, the snare laid by what looked equalisation was that equalisation came at a price, i.e. spatial inequalities became increasingly sharp in the individual counties (regions). Gábor Vági (1982) outlined how development funds had been allocated within the individual counties. The development of county seats was accorded the highest priority. In the case of villages, which constituted the bulk of the settlement stock, however, budgetary funds slowed to a trickle. The reason why it engendered general social tension was that from the 1970s booming large agricultural companies contributed to development in villages heavily and ran a verifiable welfare system. Household plot production on the pieces of land allotted to members of the co-operatives was a source of supplementary income, which also resulted in tangible improvement in living standards, through a significant amount of extra work, though.

The radical left-wing of MSZMP, which considered the class of organised industrial workers and, within this, skilled workers to be the backbone of the party, detected agriculture-fuelled rural convergence, and urged immediate steps. As one of its last realistic measures, the 'Kádár regime'⁸, while remaining in favour of growing wealth in the provinces, allowed for the possibility that labour in large industry could also earn supplementary income. Its tool for this was economic teams, which it first supported, then, in 1982, officially approved. This change led to the incorporation of the principle of productivity and the possibility of financial reward for individual performance in the system. In the 1980s the development of small-scale businesses rested on the social capital and trust⁹. The rapid spread of quasi-private enterprises and, after 1984, private companies proper (e.g. economic associations, civil law companies, co-operatives etc.) foreshadowed the emergence of a new divide in the country's spatial structure along a new dimension. (Nemes Nagy, Ruttkay, 1989) Subsequent studies (Rechnitzer, 1993) also attest to a similar spatial divide in entrepreneurial activity, which ran in a West-Easterly direction, while activity in large centres was outstanding.

However, the emergence of predominantly small business units was only one spectacular, but not the most efficient factor that shaped the new economic spatial structure

⁸ János Kádár was the leader of the communist party from 1957 to 1987.

⁹ The existence of a 'second economy' was instrumental in transition into market economy and in the establishment of enterprises.

that evolved after the regime change. The two key processes were privatisation and greenfield investments, as the amount of capital that was involved in them (especially in the former) was far greater than what was involved during the enterprise boom. The transformation and privatisation of former state-owned (settlement-owned) companies did not have a significant direct impact on spatial structure in the first phase, as there was a change only in the owners of existing production capacity. However, the timing of privatisation, the sectors involved, the type of owners vested with decision-making powers, the corporate strategies on which developments were based and the results of these strategies did matter. Thus, in the case of privatisation it was quality components that were key to corporate level success and ability to adjust as well as, from a broader perspective, development prospects for entire settlements and regions.

In the case of privatisation it was existing supply that motivated investors. By contrast, greenfield investments were influenced by the market, logistical positions, accessibility, existing professional culture and the tradition of co-operation, depending on investors' objectives. As regards privatisation, spatial inequalities of supply and the end of the privatisation process strengthened the economic position of the capital city and its wider space and that of Northern Transdanubian counties. However, the real cause of a dramatic increase in spatial inequalities was the regional distribution of greenfield investments. The regions which investors prioritised were practically identical to the space referred to in connection with privatisation, except that greenfield investments targeted rural space, the Austro-Hungarian border zone, the Vienna-Budapest axis and the capital city's wider agglomeration space. (Figure 2)

Inequalities in the spatial distribution of enterprises, privatisation and even greenfield investments alone would not have led to such sharp spatial differences that they actually did had they not been coupled with the crisis and phase-out of sectors which were the engines of growth in those regions that were less prioritised by capital. A lopsided industry with a wasteful pattern of raw material and energy consumption in former industrialised regions and regional economic models based on large-scale agrarian production as well as related manufacturing and light industry faced crisis. Neither privatisation, nor greenfield investments (which, although they did emerge isolated, had no material catalytic impact) were able to help the regions concerned overcome it until the final years of 1990s. Increasingly strong separation between crisis and dynamic spaces engendered inequalities across the country, which in turn transformed the pre-regime change spatial structure profoundly and contributed to the entrenchment of internal division. (Figure 2)

Market forces during the stages of development that followed the regime change – crisis, economic downturns, consolidation with time lags and spatial delays and rapid economic growth followed by more lacklustre growth after the turn of the millennium – added to regional inequalities. This dichotomy was clearly reflected in inequalities between the capital city and the provinces, those within rural areas and in the level of development of the constituents of the settlement network. Experience confirms that spontaneous forces in the Hungarian market economy, which, in essence, operate along neo-liberal principles, undoubtedly generate inequalities and division rather than integrate regions with different potential and relative advantages.

The state development policy of the time also adopted neo-liberal principles, prioritising the sectoral approach over the regional one. This approach focused mainly on improving the competitiveness of the country as a whole, setting a pace of economic growth exceeding EU average and narrowing the productivity gap. It addressed social and regional tensions arising from, among other things, job losses, a lack of investments and less attractive investment opportunities through case-by-case interventions on the wrong scale. What further

exacerbated the situation was that the state itself as a key investor¹⁰ contributed to spatial inequalities significantly¹¹.

Regional development and spatial planning, for which a legal background was provided in 1996, was hardly able to finance material developments or materially influence the development trajectories of the individual regions for lack of funds. Contrary to appearances (the number of tenders submitted, that of successful tenders and the amount of the funds granted), the Széchenyi Plan, initiated by the Orbán government in 2000, added to an already large number of differences between the individual regional units and settlements through its projects directly associated with the economy.

Although it is still early days to assess the impacts of the National Development Plan for 2004-2006 (some of the tender opportunities have not even opened up and the majority of the tender procedures have not been completed yet), the subjects of the calls for tenders reflect the survival of an earlier logic. This is hardly likely to be conducive to more even spatial development through the involvement of EU funds (more specifically Structural Funds). The current position of the central budget offers limited leeway for development projects financed through the involvement of domestic funds. Raising funds for national co-financing in order to secure EU funds puts financial stress on the individual government agencies. Given the circumstances, it is sheer naivety to expect sectors to adopt a development policy that accords priority to the principle of regionality, and this is hardly affected by the fact that, compared to earlier years, regions, key units of area development, can dispose over a larger volume of funds of their own. (92% of the funds transferred by the central government are dedicated funds rather than all-purpose ones and serve sectoral rather than regional interests.)

Spatial developments in economic indicators and changes in income positions move in parallel. That the proportion of wage earners is higher, that of the unemployed is lower and labour is better paid in dynamic regions are not the only explanations. Material spatial inequalities are also discernible between more affluent and less well-off regions and settlements even in the case of the public sector, frequently criticised for its size, where, in principle, spatial inequalities are equalised. Differences on a similar scale are also detectable in the pension scheme. A slope running in a West-Easterly direction, though less steep than the one in the private sector, is also present in sectors under government control. Lower income is not coupled with lower costs of living. The financial value of the key components of wealth (i.e. land and housing property) held by families in lagging regions is a mere fraction of their counterparts in dynamic regions, which dampens willingness to move from stagnating or lagging areas to those perceived as successful.

The era of the regime change was, without a doubt, that of spatial differentiation in Hungary, and with a decade and a half having passed, it proved right the spatial models that expected moderate initial differences to grow into marked regional differentiation and projected the persistence of such differences.

Model calculations: a tool for interpreting spatial structure

Potential models included in the category of spatial models based on physical analogies are hardly used by geographers, demographers or economists in Hungary. These models emerged in international literature as part of what is called quantitative revolution

¹⁰ Central government investments accounted for 20%-25% of the total volume of fixed capital investment, in contrast to the weight of economic participants, which represented nearly two-thirds.

¹¹ Calculations attest that the contribution of the central government to spatial inequalities amounted to 17%-18% in the 1990s.

(Stewart, 1948). Although there have been a few pioneering studies seeking to define demographic and transport potential, subsequent investigations have been far and few between. A summary of geographic approaches has been provided by Hayes and Fortheringham (1988) in the Anglo-Saxon literature and by József Nemes Nagy (1984, 1998) in its Hungarian counterpart.

Compilation of data bases, the formula employed and corrections

The database used for regional-level model calculations was based on a European spatial structure where the European Union was made up of 15 member states and the rest of Europe comprised of nation states. Our first model treated the EU as an economic unit where the role of borders was negligible, but that of the EU's outer boundaries in filtering economic effects was of key importance. As regards the second model, our main concern was that economic policy decisions at the national level were still dominant in the EU. Hence, we decided to carry out a study at the national level. In order to make model calculations straightforward we chose not to distinguish national borders. We assumed that borders ensured a flow of goods, people and information with equal intensity – in other words their filtering effects were practically the same. Our basic assumption was that more borders reduced the efficiency of interaction between two neighbouring economies in a roughly linear fashion.

The selection of attraction centres made the model even more straightforward. Capital cities were given the role of such centres, no matter how far they were from the actual economic centres. For EU member states, this posed a problem only on one occasion (that for Germany and Berlin). As for non-EU member states, Slovakia and Croatia faced the same problem. Given the current state of affairs, however, we could not do anything else.

The software (Michelin's European Route Planner) used to define distances offered two possible approaches to interpreting distance. One was distance expressed in kilometres, the other was the time needed for the journey. As this software provided data on the basis of the 2004 road network, the first approach seemed to carry a lower risk of marked bias since, as a result of thoroughfare improvements, the average journey time (i.e. journey time per kilometre) had changed significantly almost everywhere. Unfortunately, we could not use an older version of the software in making our calculations, which would have reflected the 2001 state of road networks.

In calculating the potential, we used the following formula:

$P_i = G_i/d_{ii} + \Sigma(G_j/d_{ij})$ ($j=1, \dots, n; j \neq i$), where
 P_i is the economic potential of the spatial unit i ,
 G_i/d_{ii} denotes the 'internal' economic potential,
 $\Sigma(G_j/d_{ij})$ ($j=1, \dots, n; j \neq i$) is the 'external' economic potential, where
 G_i and G_j represent the economic weight of the spatial units i and j respectively,
 d_{ii} is the estimated intra-regional distance calculated in the following manner: $d_{ii} = (T_i/\Pi)^{0.5}/3$, where
 T_i represent the size of the spatial unit (counties and regions) under review,
 d_{ij} denotes the distance between the spatial units i and j .

As a result of the calculations, regional and county-level shifts and the extent of changes could be identified. Thus, a fundamentally static model was dynamised, which in turn allowed for fuller utilisation.

Results of model calculations

While devising the model calculations, we adopted the hierarchy that followed from the logic of the formula. As a first step, we calculated the inner potential of the Hungarian regions (Table 1). In order to be able to do so, we generated regional GDP data in EUR billion as well as an inferred internal distance. The latter automatically lowers the value of large regions with smaller economic power, while it highlights high regional GDP generated by relatively small areas among competing areas. Assuming that the economic potential of the capital city is 100, the relative potential of the two regions taking the lead in economic restructuring (successful re-industrialisation) is within the 18.2%–18.5% range, while that of lagging regions varied between 11.5% and 14.5%¹².

As a second step, the interaction between the Hungarian regions (Figure 3.) was assessed. Except for the region that also includes Budapest, the economic potential ‘received’ from other Hungarian regions exceeded the amount of inner potential. As regards the metropolitan region, the contribution of the other large Hungarian regions hardly exceeded 15%, which means that the development of the capital city and its economic ‘hinterland’ is largely independent of the processes that occur in the other regions of the country. However, in the reverse case, i.e. in the case of the countryside, (due to the outstanding economic weight and central status of Budapest and its region) the degree of dependence is much stronger. When the relative economic potential of the other regions is compared to that of the metropolitan one, a clear shift can be detected, relative to the previous step. Through the economic impulses that arrive predominantly from the central region, there was a considerable rise in the value of the relative potential (the Budapest region continues to be represented by 100 units). It was twice the original value even for that of lagging regions.¹³ Of the two success regions in the provinces, the relative potential in Western Transdanubia, which is further away from Budapest, is a good 10% lower than in Central Transdanubia, which is unequivocally attributable to its relatively peripheral location. Even so, ‘home potential’ in Western Transdanubia is 7.5% higher than that of the region immediately following it. This suggests that the development position of the region is relatively favourable even within the tight framework of the national economy.

The third step was the measurement of the impact exerted by the neighbouring national economies on the Hungarian regions in accordance with the above two model variants. In order that the manageability of calculations could be ensured, effects scoring lower than 10¹⁴ were considered as marginal and excluded from further calculations. In the variant where the European Union was treated as a single economic space, the inner potential of the Hungarian regions, except for Budapest, of which the share was 40%, always remained below 10%, while the so-called ‘home potential’¹⁵ varied between 17% and 27% (it rose to 45% in the metropolitan region). These low values point to the openness of the Hungarian economy and its heavy reliance on external relationships. It follows from the nature of the model that the regions in the west receive a higher supplementary potential than do those on the eastern peripheries, as in Europe’s spatial structure it is in the western hemisphere of the Continent that GDP values are high.

¹² Southern Transdanubia has the lowest values, while the Northern Great Plain has somewhat higher values.

¹³ Southern Transdanubia continues to bring up the rear. The potential in Northern Hungary turned out to be somewhat higher in the group.

¹⁴ It denotes a value pegged to Budapest that, in theory, allows other nearby regional centres to have impact scores that reach or even exceed 10. In practice, however, this has never been the case.

¹⁵ Home potential denotes the value of potential measured in the Hungarian economy. This is the sum total of the regions’ inner potential and the development potential received from other regions.

Table 1.a The economic potential* of Hungarian regions, 2001

	Inner potential	National potential	National potential	Outer potential	Potential
Regions	Gi/dii	from outer regions	sum.	from foreign countries	overall
Central Hungary	3,414	0,521	3,935	3,366	7,301
Central Transdanubia	0,630	1,168	1,798	3,566	5,364
West Transdanubia	0,624	0,723	1,347	4,247	5,594
South Transdanubia	0,402	0,530	0,932	3,089	4,021
North Hungary	0,468	0,584	1,052	3,017	4,069
North Great Plain	0,495	0,497	0,992	2,851	3,843
South Great Plain	0,463	0,559	1,022	2,931	3,953

* - countries as economic units

Table 1.b The economic potential of Hungarian regions, 2001**

	Inner potential	National potential	National potential	Outer potential	Potential
Regions	Gi/dii	from outer regions	sum.	from foreign countries	overall
Central Hungary	3,414	0,521	3,935	4,834	8,769
Central Transdanubia	0,630	1,168	1,798	5,086	6,884
West Transdanubia	0,624	0,723	1,347	5,846	7,193
South Transdanubia	0,402	0,530	0,932	4,507	5,439
North Hungary	0,468	0,584	1,052	4,375	5,427
North Great Plain	0,495	0,497	0,992	4,111	5,103
South Great Plain	0,463	0,559	1,022	4,258	5,280

** - EU15 as one economic unit without inner borders

In this model, all the member states of the European Union (except for Luxembourg) materially influenced the development possibilities of the Hungarian economy. The size of impulses received from remote countries like Ireland and Portugal was identical to that transmitted by Bulgaria and neighbouring Slovenia. The countries that exert the strongest impact on the individual regions are nearly the same. The first five always include Germany, Italy, France and the UK, the four key economies of the EU, in the same order in terms of distance. As well as these countries, Austria (due to its proximity) or Russia (due to its economic weight) is usually also included in the first six. The only exception to it is Western Transdanubia, in which case the sixth country is neighbouring Slovakia, with Russia coming seventh. Western and Central Transdanubia are also special in the sense that the impact of the Austrian economy on local economies is much stronger than could be expected based on its size. In the case of the former region Austria comes second after Germany, in the latter it comes third and has rather a high value. *In this model variant, except for the above, local characteristics (nearby capital cities and cross-border relations) influence the economic potential of the Hungarian regions only to a moderate degree.* (Table 2.)

Again, comparing potential values paints a picture of the development possibilities of the individual regions relative to the metropolitan one. The involvement of external economic centres further reduced the differences between the regions. The rise in the potential of the four disadvantaged regions in the Hungarian spatial structure was over two-fold (in Southern Transdanubia nearly three-fold). Thus, measured against the metropolitan region, their convergence value reached 58%–62%. Mainly due to the proximity of Italy and the broader Mediterranean region, Southern Transdanubia had the highest value. The Northern Great Plain again brought up the rear, since only few supplementary development impulses reached it from the Eastern economies of the Continent. The two success regions in the provinces also changed places. Lying further west, West Transdanubia, its potential having more than

doubled, accounted for 82% of the capital city's, while the corresponding figure for Central Transdanubia, at a more moderate growth rate, was over 78%. *In this model the country has a clear tripartite structure: the capital city takes the lead in development, followed by Western and Central Transdanubia, constituting a relatively homogeneous space. Those spaces that are perceived as peripheral on the national scale and, viewed from outside, look like a single cluster come last. This scheme of spatial distribution is a relatively accurate approximation of spatial inequalities in Hungary both at a regional level and in other economic and social dimensions, even though the extent of the differences may be quite significant*¹⁶.

In the second model variant, where EU member states are treated as national economies, both the internal and home potential of the Hungarian regions gave higher proportion in overall potential. In the case of the capital city internal potential alone amounted to 47% of the calculated total potential, while home potential stood at 54%. As regards the remainder of the countryside, inner potential was 10%-13% and home potential was mostly 23%-26% (with the exception of Central Transdanubia with high home potential, where it stood at 33.5%). In the light of this, it is safe to assume that, in the vast majority of the regions, two-thirds or even three quarters of development impulses arrive from economic actors outside the country. Therefore, according high priority to a network of external market relations is of fundamental importance in both economic and regional policy. (Table 1.)

One of the characteristics of the model is that not all economies reach the threshold level set by it even in West Europe. Besides Luxembourg, Ireland and Portugal are also excluded from the countries that exert a material impact on Hungarian regions. The impact of Scandinavian countries is identical to that of Bulgaria and Slovenia. As borders act as filters, spatial proximity gains in importance in the Western hemisphere of the Continent as well. Thus there was a change in the order of strength of the individual national economies. One conspicuous phenomenon is that neighbouring countries – Austria in particular, but also the Czech Republic and even more significantly Poland – rose in importance¹⁷. Another is Russia's high ranking (depending on the region, it ranks from 3rd to 6th), which makes its possible influence on the Hungarian economy comparable to that of France. *In this model cross-border relationships play more important roles, while the weight of an increasingly unified Western Europe is quite less.* (Table 2.)

Although the relative potential of the Hungarian regions (using the metropolitan one as a benchmark) increase spectacularly relative to home potential, its values remain below the level calculated in the first model. In the lagging regions the value rises approximately two-fold (the most rapidly in South Transdanubia), amounting to 52%-56% of Budapest's¹⁸. Expressed in scores, the difference between the Northern Great Plain – which brings up the rear – and the somewhat more advantageous Northern Hungary is only 3. In the case of the two Transdanubian regions that take the lead in economic restructuring, the direction of the process is identical to what was described in connection with the first model, with its extent being somewhat more modest.¹⁹ *The country's fundamental spatial structure remains unchanged, however. Only the metropolitan region stands out from the regions more markedly and clearly.*

¹⁶ GDP per capita expressed in PPS amounted to 83% of EU average in the metropolitan region in 2001; corresponding figures for the two most developed Transdanubian regions and the four lagging ones were 54%-57% and 33%-39%, respectively. Regional purchase power was 107% of the national average in the central region, 92%-95% in the lagging ones and around the national average in regions undergoing re-industrialisation.

¹⁷ Based on the scores, its impact is comparable with that of the UK.

¹⁸ Relative to the first model, the extent of the decrease in potential is 6%-7%, i.e. the nation state model almost automatically reduces the value of the country's less developed peripheral regions.

¹⁹ Western Transdanubia is below the 77% level, while Central Transdanubia is below 73.5%, which is 5%-6% lower than in the first model variant.

Table 2.a The influence of most important economic partners* of Hungarian (NUTS 2) regions, 2001

Regions	Central Hungary		Central Transdanubia		West Transdanubia		South Transdanubia		North Hungary		North Great Plain		South Great Plain	
	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point
Germany	1	772	1	800	2	888	1	678	1	744	1	604	1	639
Austria	2	421	2	507	1	920	3	295	4	244	4	219	3	252
Italy	3	367	3	386	3	376	2	405	2	321	2	311	2	348
Russia	4	241	5	231	6	226	5	218	3	267	3	267	4	236
France	5	237	4	244	5	259	4	228	5	211	5	206	5	213
Great Britain	6	169	7	174	7	183	6	163	7	153	7	149	6	154
Poland	7	168	8	153	8	156	7	131	6	199	6	175	7	135
Slovakia	8	150	6	183	4	373	8	99	9	90	8	133	{11}	{82}
Ukraine	9	102	9	97	10	92	9	88	8	120	9	123	10	98
Czech Rep.	10	89	10	97	9	117								
Rumania	{11}	{80}							10	86	10	99	9	98
Croatia							10	82						
Srbia-Crna Gora													8	104

* - countries as economic units

Table 2.b The influence of most important economic partners of Hungarian (NUTS 2) regions, 2001**

Regions	Central Hungary		Central Transdanubia		West Transdanubia		South Transdanubia		North Hungary		North Great Plain		South Great Plain	
	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point	Rank	Point
Germany	1	1142	1	1200	1	1332	1	1017	1	1115	1	906	1	959
Italy	2	551	2	579	3	564	2	607	2	481	2	466	2	522
France	3	474	4	487	4	518	3	455	3	422	3	411	3	426
Great Britain	4	423	5	434	5	457	4	408	4	382	4	373	4	384
Austria	5	421	3	507	2	920	5	295	6	244	6	219	5	252
Russia	6	241	6	231	7	226	6	218	5	267	5	267	6	236
Poland	7	168	10	153	9	156	9	131	7	199	7	175	8	135
Spain	8	153	8	157	10	152	7	160	8	143	8	141	7	149
Netherlands	9	150	9	155	8	165	8	144	9	133	10	130	9	135
Slovakia	10	150	7	183	6	373	10	99	11	90	9	133	14	82
Ukraine	11	102	12	97	13	92	12	87	10	120	11	123	12	98
Belgium	12	93	13	96	12	111	11	89	13	82			13	83
Czech Rep.	13	89	11	97	11	117								
Rumania	14	80							12	86	12	99	11	98
Croatia							13	82						
Srbia-Crna Gora													10	104

** - EU15 as an economic unit without inner borders

Conclusions

Ash Amin (1976) relied on the uneven distribution of power in formulating his theory on the centre–periphery relationship. Core regions concentrate economic power and control technological advance and production through an unequal exchange. Moveable goods, resources and the value added created during production flow from peripheries to centres in order to support the further development of the latter. The autonomous development of peripheries (i.e. development independent of centres) becomes increasingly difficult, as centres devise decision-making mechanisms that suit their own interests²⁰.

Storper and Walker (1989) argue that the main shaper of regional differences is the spatial expansion of production, i.e. the selection of global premises, which, by the 1980s, had become a more important cause of uneven spatial development than trade (unequal exchange). Krugman (1991) adds that an aggressive sectoral and regional policy and new background conditions (i.e. new economic paradigm) may provide for the possibility that new regional units may rise to a higher position and that the current spatial structure of geographic concentration may be overhauled. The essence of Krugman's conclusion is that mobile capital must be offered outstandingly favourable conditions for investment, ensuring the possibility of earning high returns²¹.

In reality, only dominant societies can develop organically through the exploitation of their internal resources on a close to optimal level. Dependent societies can only grow as a proportion of the needs of dominant actors, which they, in a sense, reflect. The example of emerging markets suggests that their spectacular development, which can be attributed to the establishment and operation of market economy, is highly dependent on the control of global and supranational organisations (especially global financial markets). There are serious social risks inherent in this development path, since an asymmetric system of relations can easily dismantle the social structure of a dependent country, while the latter only scratches the surface of the system which operates a dominant society.

Subsidiaries of multinational companies, which have become key actors in local economies, and local suppliers and subcontractors which do business with them are cogwheels in the machinery of capital flows concentrated and controlled by external decision-making centres. The reason why they are involved in global economic trends is to realize extra profit. Local decision-makers' room for manoeuvre, controlled by a network of national and international regulatory systems and institutions, has become rather limited. Nevertheless, the development of centres depends on whether or not there is an under-developed periphery and on the persistence of spatial inequalities. Yet, this interdependence, no matter how one-sided it is, does provide some space for local initiatives, actions and development. In consequence, genuine development, convergence with more developed regions and reduction in one-sided dependence may, nonetheless, materialise. Successful restructuring, which also presupposes a change in economic policy, may easily lead to higher rungs in the global ladder.

The dependence of large urban regions on peripheries is stronger than it looks. This was the message of the Brandt Reports (1980, 1983). The reason for this is that while peripheries may decide to opt out of global trends and establish a relationship with centres that offer better development opportunities, thereby easing their dependence on core regions

²⁰ Criticism has been voiced of the causal link according to which the social concentration of power entails the involvement of the role of a spatial hub.

²¹ Although the deconcentration of production and the decentralisation of certain components of decision-making could reshape the global economic landscape, if control over the key components of the production chain is retained, no fundamental change occurs in global economy.

and expanding their leeway, opting out of global trends as an alternative is out of the question for metropolises with a central role. If their peripheries shrink, their supply position available for mobile capital deteriorates, which feeds into a decline in the volume of investments and competitiveness.

The supply of traditional economic resources alone can no longer attract mobile capital. The high-quality provision of the widest possible range of external conditions is becoming increasingly important at least with respect to target activities. This leads to the evolvement of specialised local and regional economies which are concentrated in space. Underdevelopment on a regional level is, usually, associated with unbalanced spatial structures. For regional units, the token of their own development is good working conditions maintained with remote centres rather than co-operation with neighbouring regions or seeking joint solutions to problems²².

Marxist geographical approaches (Harvey, 1982 and Smith, 1984) speak of the uneven distribution of power, which involves spatial inequalities, be they direct or indirect control, the organisation and reorganisation of space through established networks or the utilisation of technological and innovational advantages. They identify ownership, or rather the unequal ownership of the means of production, as the cause of unevenly distributed power. Actors with the greatest power organise space and processes in it and channel profits to themselves, which generate class divisions manifesting themselves in social, economic and political conflicts. A privileged minority uses even public officials to reach their goals, while letting them have some of the profit²³.

Uneven spatial development heavily exploits temporal and structural differences in the level of development of the individual regions. Today Europe's most advanced urban regions mostly follow a post-industrial path of development. Those regions whose convergence was spectacular in the 1980s (e.g. Southern Germany, Southern France, Catalonia, the Third Italy) owed their dynamic development to industrial production based on post-Fordian principles and flexible specialisation. The implementation of the new production model was accompanied by vigorous economic restructuring, with new, often 'imported' sectors becoming the engines of local/regional economic growth. This upswing can only be temporary, since – apart from activities that are cutting edge even in global comparison – competitors offering cheaper wages possess comparative advantages today. As Neil Smith (1984) put it, in the movement of capital oscillation can be detected between underdeveloped regions, which does not transform existing power relations fundamentally.

The evolvement of centres and peripheries in the Hungarian economy is not independent of the above global processes. While government policies accord high priority to Hungary's soonest possible convergence with leading economies in Europe, a large part of the country is unable to follow the pace of development set by the capital city and a significant part is falling behind EU average. Although a large group of relevant regional theories set great store by government policies, Hungarian regulatory and control policy is dominated by (outdated) beliefs in the omnipotence of the market. Except for ad hoc measures aimed at managing crisis situations, no complex spatial policy is in place on a government level. It is true that neither parliamentary, nor extra-parliamentary forces have as yet put forward an effective strategy that could be interpreted as a response to the challenges posed by this area.

²² The model worked out by Slater (1975) for developing countries can be applied to spatial processes and the regional practice of communication in Hungary.

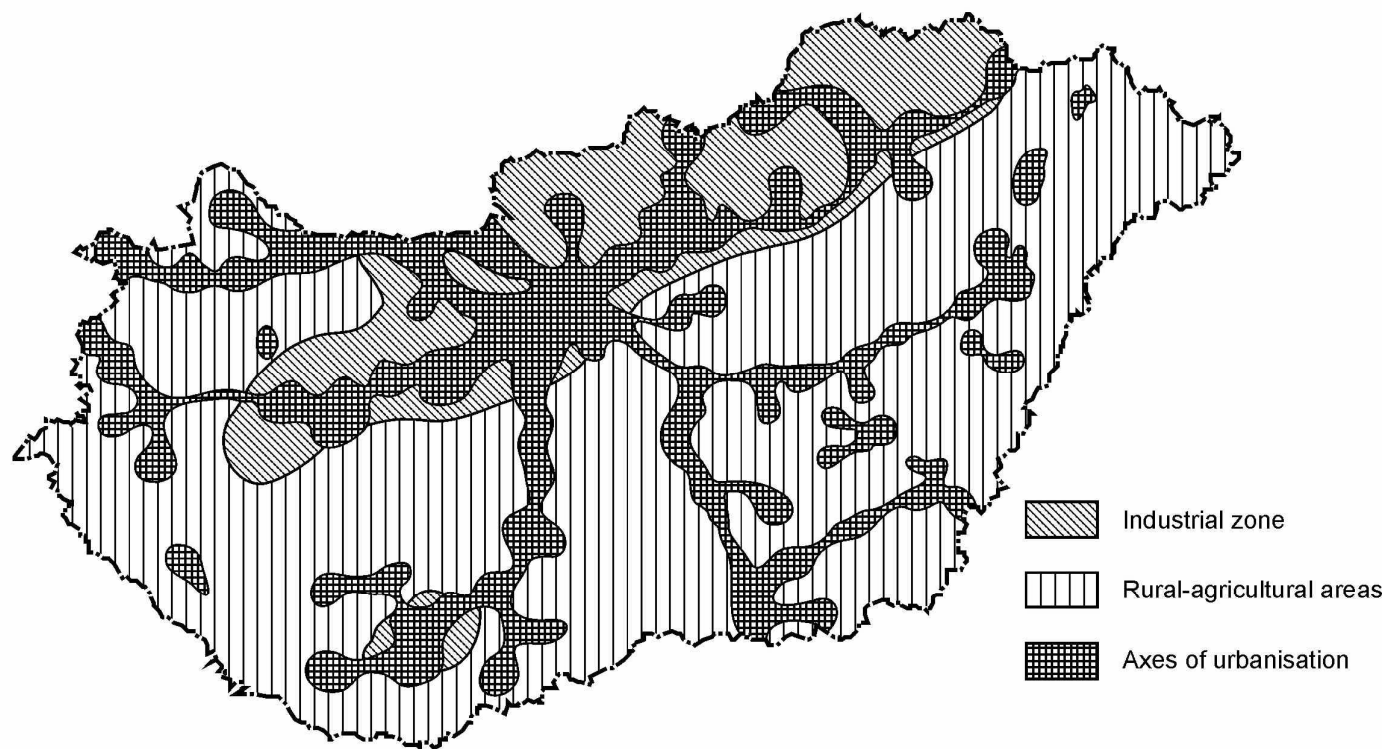
²³ This does not mean bribing directly government officials. In return for the passing and implementation of decisions in favour of capital, the possibility of access to information and participation in decision-making are provided.

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Figure 1. Regional structure of Hungary before the transition



Source: Krajkó, 1982.

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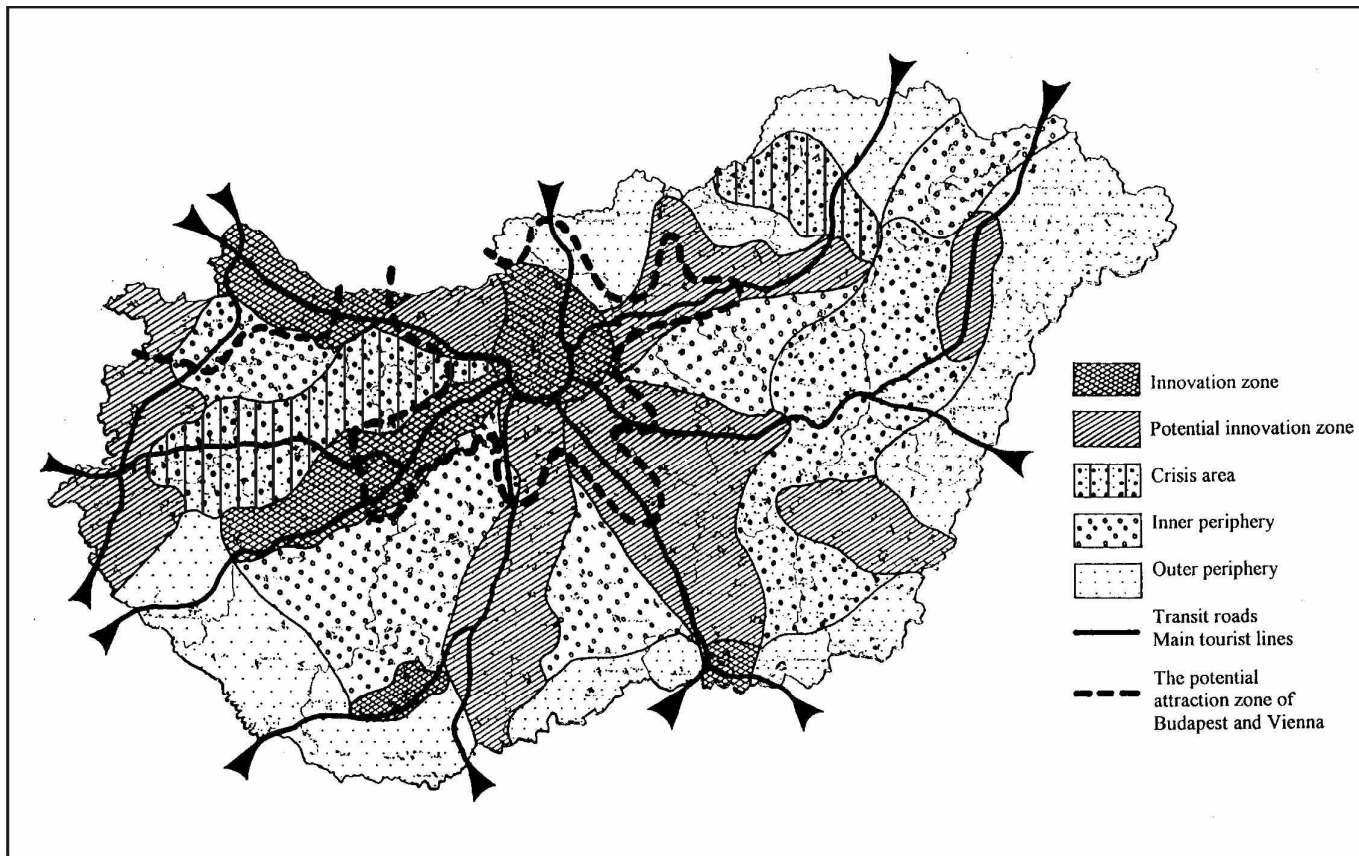


Figure 2 Potential spatial structure of Hungary

Source: Rechnittzer, 1993.

Figure 3. Territorial administrative units in Hungary (2001)

