

REGIONAL DISPARITIES DURING THE TRANSITION: THE NEW SPATIAL STRUCTURE IN HUNGARY

If not in the regional differentiation process of the last one-and-a-half decades then definitely in the area of decisive processes can we talk about a change. This change generated a new spatial structure, which also indicates a new economic and social spatial structure and a regional restructuring of settlements.

Individual regional development paths determining the new spatial structure display a high degree of regional differentiation in terms of development indicators in individual regions. Growth and decline at macro level determined by economic cycles diverge regionally to a substantial degree, and in some cases these divergences are extreme. Certain regions react more promptly than others to circumstances changed by economic cycles. This is not just due to the different regional dynamics but also to the 'inherited' sectoral structure and the government's development policies. Based on experience in the 1970s and 1980s we come to the conclusion that the mono-cultural production structure shaped by a mono-sectoral development policy implies several risks at regional level, as does supporting investments taking no heed of the amounts or nature of the assistance.

JEL: P25

Regional analyses cannot only be characterised by their use of regional division levels, they also differ in terms of applying different variables. The question is whether we just wish to analyse the regional distribution of a given variable, or make a more complex calculation which takes into account regional development disparities as well. To measure the latter it is advisable to apply several variables collectively because development is a multi-dimensional concept with various indicators.² Development comprises the natural and man-made environment, as well as the various indicators of the economy and society. The complexity of the analyses is revealed by the fact that certain dimensions of development can be described by means of several indicators, these dimensions can display parallel movement and exhibit links of varying intensity. The more dimensions and indicators we take into account, the more complex the picture will be. In many cases, we cannot even identify an obvious link between the trend described by regional economic indicators and the level of development at county level;³ however, applying the multi-variable methodology is justified by the 'change dynamics' of individual variables and the predictability of future processes thanks to the links between them.

¹ Gábor Túry is research fellow in Institute for World Economics of the Hungarian Academy of Sciences.

² Nemes Nagy (1995).

³ Sándor (1996).

Regional differences are described by the distribution of economic and social indicators at county level. Economic development is described by the *GDP per capita*, social welfare is described by the *level of income* (the monthly gross average wage of employees), and the unemployment rate. The *gross monthly average wage* is the monthly average including the basic wage comprising personal income tax, the health care and pension contribution and the employees' contribution, as well as other wage elements. In the statistics of gross wages, in addition to the changes in the classification of activities (according to the TEAOR), there was a change in methodology in 1998, which resulted in companies employing more than four people being covered by the analysis in addition to firms with staff of over 20 people. In our case this does not influence the outcome of the analysis. In 2003 a further change was introduced, which impacted differently on the various counties in the time series of the last year. This change related to the employees of law enforcement agencies. Accordingly, the wages of these employees – formerly accounted for in Budapest – were taken into account at the level of the counties. This mainly resulted in major changes in counties with a rather low employment rate.

The *unemployment rate* data is compiled by the Central Statistical Office according to ILO (International Labour Organization) methodology, and covers the population aged 15–74. Based on the census in 2001, time series were recalculated until 1998, the period prior to 1998 includes data calculated on the basis of the census in 1991. This deviation does not cause any problems in our analysis.

Together with economic and social indicators, we also examine the regional distribution of capital stock. The regional distribution of foreign direct investment is calculated by the county-level aggregation of foreign companies' equity. Foreign company shall mean a company where the foreign partner (as an investor) disposes of at least 10 percent of the ordinary shares or voting rights, or a stake equivalent to this proportion. The equity is calculated in compliance with the provisions of the effective accounting law.

Foreign investment has been measured since 1999 by the National Bank of Hungary and the Central Statistical Office on the basis of a uniform nomenclature. The system is based on the statistics of corporate data, which include data related to ownership shares, credit relations between parent and subsidiary companies and the re-invested earnings based on the profit and loss account and the balance sheet.

Regional GDP/capita, the gross monthly average wage of wage earners and unemployment data are compared to the regional FDI/capita, which is quantified by the correlation coefficient of indicators. To calculate the regional distribution of individual variables we use the weighted relative spread, i.e. the weighted spread data as compared to the average.

Methodological questions

Taking into account the regional *aggregate GDP* used to measure development, several methodological problems arise,⁴ which render any calculations based on this indicator uncertain. However, the application of this indicator is justified not

⁴ See Dusek (2000) in detail.

only by comparison with other development indicators,⁵ but by its (index) role in the European Union support scheme.

When analysing the regional distribution of capital and the spatial differences in regional economic development and growth, we have to take into account the following reservations.

In the course of an acquisition – until the end of the 1990s this mostly meant a privatisation acquisition – the foreign company acquires an existing production verticum, which is defined in regional terms. Therefore, in the case of an individual region, it is misleading to rely only on cumulative data, since if we wish to examine the changes in spatial structures, the investment data gathered after the acquisition is important as it best illustrates the attractiveness of a given area or region as well as its reserves of resources – if we ignore the opportunity of commuting, which would take us too far in our analysis.

The other methodological problem is posed by the spatial location of the production site of given companies, which originates from the permanent changes of the domestic and international economic environment. Decision-making on transforming the investment and production capacities does not take place locally, but at the level of the parent company, with due respect to the optimal production system of the whole group.⁶ Investment into a given region, of course, can be influenced by governmental and other instruments as well; however, the selection of the location is only the last step in corporate decision-making.

In the course of the research, the aggregate of the regional distribution was always at county level, the data covers the period between 1994 and 2003. The time series thus cover 10 years, meaning that conclusions can be drawn on regional inequality trends. In the case of other indicators it is impossible or premature to extend the period of analysis. At regional level, there are only estimates with regard to the period prior to 1994.⁷ However, as of the mid-1990s we already dispose of data calculated not only nationally but regionally as well. These data allow us to draw a precise picture of the new spatial structure that started to evolve in the mid-1990s.

Regional processes before 1990

It is not possible to divide regional processes into pre-transition and post-transition periods arbitrarily, because the regional differentiation process of the 1970s and 1980s had not come to an end by the transition, and what is more, owing to the economic restructuring which began at the end of the 1980s, economic and social disparities grew further.⁸ At the same time, such a division is necessary from a methodological point of view, as economic policy – which indisputably has a regional impact – operated differently during the socialist era than under market conditions. A further consideration is that after the transformation of the political and economic regime the Hungarian economy opened up, which also impacted on regional processes and factors of growth.

⁵ Sándor (1996).

⁶ Dunning (1985): *Multinational Enterprises, Market Structure and International Competitiveness*. New York.

⁷ See Nemes Nagy (1995, 2001).

⁸ Major–Nemes Nagy (1999).

A fundamental problem of economic policy in the socialist era was not only its emphasis on the extensive (production-factor intensive) approach, which gave priority to quantity, but also the lack of any link between economic and regional policy,⁹ consequently regional development never played a role in economic policy.¹⁰ The existing regional development policy interfered with regional processes only to a limited degree; therefore, it had a negligible effect.

In the period after 1956, the importance of regions in industrial policy was determined by the decreasing importance of Budapest, the capital. Changes started to take place in the country's spatial structure, the number of industrial workers in the South¹¹ and North Great Plain¹² and in Southern Transdanubia¹³ increased.¹⁴ Industrialisation became the most important instrument of developing backward regions. Nearly all priorities were linked directly or indirectly to industry, more precisely, to the development of heavy industry.¹⁵ Reforms covered extensive industrial development as mentioned above, which could not play a role in regional development and in levelling off differences in various areas because the weighting of industry in the national economy dropped in the 1970s and intensification started.

Figure 1



In the 1970s the indicators of the regional differentiation of industrialisation began to converge slowly. The spread indices of national income generation per capita in industry and the Hoover inequality indices between 1975 and 1980 started evening out at regional level. However, in the area of labour productivity indices there was a contrasting process underway. Regional disparities grew to such an extent that by the middle of the decade disparities had exceeded the level at the beginning of the

⁹ Hováth (1992).

¹⁰ Illés (1992).

¹¹ South Great Plain: Bács-Kiskun-, Békés-, Csongrád counties

¹² North Great Plain: Hajdú-Bihar-, Jász-Nagykun-Szolnok-, Szabolcs-Szatmár-Bereg counties

¹³ Southern Transdanubia: Baranya-, Somogy-, Tolna counties

¹⁴ Klekner (1987).

¹⁵ Kornai (1993).

1970s.¹⁶ The reason was that due to the extensive development the new capacities did not serve the objective of productivity growth but merely production growth. In the 1980s, regional differences started to grow because of the differing intensity in industrial production and the restricted development of rural areas. In addition, the regional division of the society and the economy appears in the multi-level architecture of the centre and the periphery, urban vs. rural areas.¹⁷ In the 1970s, the less industrial areas started to catch up, which is proved by the trebling of the income-generating capacity measured by national income per capita¹⁸, however, the dynamics of development came to a halt in the 1980s, and with this the chances that backward areas with roughly average growth rates had of catching up faded away.

Regional processes after the 90's

The most marked feature of the transition process was the growing inequalities both in social and regional terms. In the period after the change in regime, the differences between regions, counties, micro-regions and settlements became even more accentuated with the dismantling and cessation of production capacities. The full employment maintained artificially by government instruments came to an end and production units were closed down, which rendered a high number of people unemployed, distributed unevenly through the regions. The strengthening of regional differences not only occurred in the area of employment, but in the income level – irrespective of the level of aggregation – with permanent growth between 1988 and 1996, which was rather dynamic at the beginning of the 1990s before dropping by the middle of the decade.

If not in the regional differentiation process of the last one-and-a-half decades then definitely in the area of decisive processes can we can talk about a change. This change generated a new spatial structure,¹⁹ which also indicates a new economic and social spatial structure and a regional restructuring of settlements.

The evolution of the new spatial structure can be divided into two well-defined periods. The *first period* started at the end of the 1980s and finished in the mid-1990s. This was the period of so-called *decline*, which involved the restructuring of production capacities, setbacks in investments, growing unemployment and falling income levels, i.e. the emergence of market conditions.

It is typical of the era that internal resources were insufficient for economic restructuring and they had to be supplemented from external sources. Thus, the strengthening of the private sector took place partly by the intensive involvement of foreign investors. Privatisation by its nature meant the restructuring and rationalisation of capacities. When analysing such a transitional period, it is necessary not only to follow or trace the micro-economic and macro-economic processes precisely, but also to cover the impacts of the transition on regional structures.

In the Hungarian economy after the decline at the beginning of the 1990s, the resources necessary for growth were established by the middle of the decade,

¹⁶ Klekner (1987): p.18.

¹⁷ Nemes Nagy (1987).

¹⁸ Klekner (1987).

¹⁹ Nemes Nagy (2001).

partly due to the investments already completed. This second period is called the *period of renewal*. The most important characteristic of the period is its dynamics, which is crucial with respect to the development path in regions and which also leads to the emergence of the new spatial structure. The previous decline was replaced by different regional growth rates, which characterise regional processes. Growth has become decentralised, in addition to external resources – public investment (primarily infrastructure, communal, etc.), tax and contribution allowances, domestic and foreign capital investment – development is fuelled by the internal resources of the given region.

The characteristics of individual development paths

Regional economic processes and their changes paint a complex picture. The process of economic growth is influenced not only by the favourable regional allocation of external resources but by the advantageous point of departure as well. Not only regional processes in the 1970s and 1980s,²⁰ but the empirical studies covering the past 15-20 years justify the claim that regions in a favourable starting situation could become the core of regional development.

After the transition, a key element of decentralised development is how the given settlement utilises the internal and external development resources. Certain cities, towns and regions had access to external resources for different reasons, their favourable bargaining positions being one. These external resources not only include public and domestic sources but the intensive presence of foreign investors. A good example illustrating this is Nyíregyháza, which recently has become an outstanding investment and development hub in the region.

Beyond external global economic impacts, the sound management of opportunities is of decisive importance with respect to sustainable long-term development. Regional and rural development based on local economic potential reveals in the medium term that the source of development is the utilisation of exogenous resources determined by endogenous development paths. Otherwise we can be witness to the development of so-called 'desert cathedrals', unable to integrate into the local economy, and the dual economy, which exists in the economy and at the level of regions in technological and production cultures.

The growth paths of individual counties also outline the changes in the spatial structure during a given period. The dynamics of development at county level and the individual development paths can be described *by means of GDP per capita, gross monthly average wage, FDI per capita, the number of foreign enterprises and the rate of unemployment*. The change as compared to the base year (1994=100%) reveals the medium-term dynamics of the counties.

Each and every dimension analysed resulted in a different outcome, however, it is worth noting that certain counties moved in tandem. The results only cover the rate of growth or decline and do not indicate either past or present rankings.

Table 1 documents the medium-term changes and the development of the new spatial structure.

The growth of *per capita GDP* provides an undisputedly clear picture. Using a mainstream term of economics, in respect of GDP/capita growth dynamics, four counties – the capital and developed counties in Transdanubia – have proved to be

²⁰ Klekner (1987).

'competitive' over the last ten years. Of the counties displaying average growth, we have to highlight Heves and Szabolcs-Szatmár-Bereg counties.

Comparing data from 1994 with that from 2003, we see the different dynamics of regional development. The weighting of the capital increased from 183 percent in 1994 to 207 percent in 2003. By contrast, the 62 percent of Nógrád county dropped to 54 percent. These are the two extremes; however, with the exception of Budapest, GDP growth exceeded the national average only in Komárom-Esztergom, Pest and Győr-Moson-Sopron counties.

Table 1
Changes in county level indicators between 1994 and 2003, 1994=100

	<i>Above average</i>	<i>Average</i>	<i>Below average / falling</i>
<i>GDP/capita</i>	Budapest, Győr-Moson-Sopron, Komárom-Esztergom, Pest	Fejér, Heves, Szabolcs-Szatmár-Bereg, Vas, Veszprém, Zala	Bács-Kiskun, Baranya, Békés, Borsod-Abaúj-Zemplén, Csongrád, Hajdú-Bihar, Jász-Nagykun-Szolnok, Somogy, Tolna
<i>Gross average wage</i>	Budapest, Pest	Bács-Kiskun, Baranya, Borsod-Abaúj-Zemplén, Fejér, Győr-Moson-Sopron, Heves, Jász-Nagykun-Szolnok, Komárom-Esztergom, Nógrád, Somogy, Szabolcs-Szatmár-Bereg, Tolna, Vas	Békés, Csongrád, Hajdú-Bihar, Veszprém, Zala
<i>FDI/capita</i>	Borsod-Abaúj-Zemplén, Fejér, Győr-Moson-Sopron, Hajdú-Bihar, Jász-Nagykun-Szolnok, Komárom-Esztergom, Pest, Veszprém	Heves, Szabolcs-Szatmár-Bereg	Budapest, Bács-Kiskun, Baranya, Békés, Csongrád, Nógrád, Somogy, Tolna, Vas, Zala
<i>Number of foreign enterprises</i>	Budapest, Komárom-Esztergom, Pest, Szabolcs-Szatmár-Bereg, Vas	Heves	Bács-Kiskun, Baranya, Békés, Borsod-Abaúj-Zemplén, Csongrád, Fejér, Győr-Moson-Sopron, Hajdú-Bihar, Nógrád, Jász-Nagykun-Szolnok, Somogy, Tolna, Veszprém, Zala
<i>Drop in the rate of unemployment</i>	Budapest, Fejér, Győr-Moson-Sopron, Hajdú-Bihar, Jász-Nagykun-Szolnok, Komárom-Esztergom, Nógrád, Veszprém	Csongrád, Pest, Somogy, Zala	Bács-Kiskun, Baranya, Békés, Borsod-Abaúj-Zemplén, Heves, Szabolcs-Szatmár-Bereg, Tolna, Vas

Source: Own calculations based on HCSO data

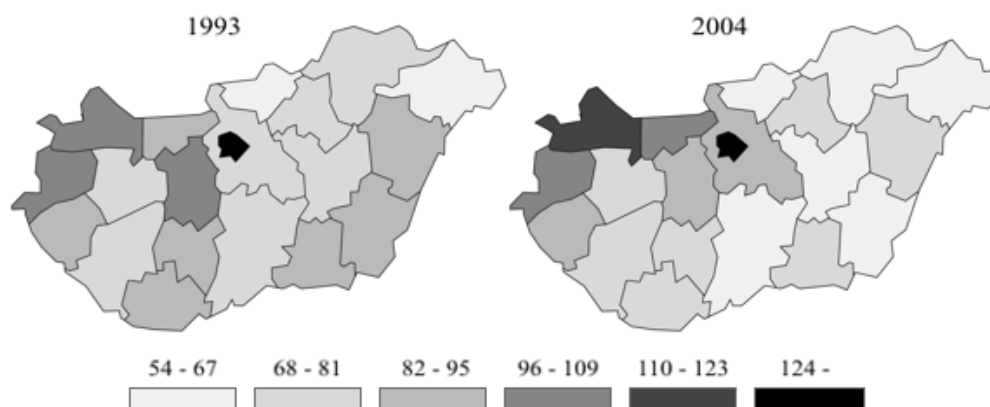
In 2003, the regional breakdown of GDP/capita resembled a mosaic (see map). Whereas in 1994, the counties at a similar level of development were found more or less in one region and there was no substantial difference between neighbouring counties, in 2003 the picture is rather varied. Regional units pursuing individual development paths produced a completely different rate of growth. At the same time, this mosaic distribution of county figures calculated as a percentage of the national rate does not run counter to the strengthening of regional disparities determined by neighbourhoods. Data in 2003 shows a sharp demarcation line in terms of development between Eastern Hungary²¹ and the Central region²², as well as Western Hungary. Former industrialised zones, scarcely populated areas,

²¹ Eastern Hungary: Heves-, Nógrád-, Szabolcs-Szatmár-Bereg counties

²² Central Hungary: Budapest and Pest county

rural regions less favourable for agricultural activities and counties with a uni-sectoral focus outline different levels of development both in Eastern and Western Hungary.

Figure 2
Regional differences of per capita GDP in 1994 and 2003 as % of country average (1995 prices)



In terms of *incomes* the dominance of the capital is the most spectacular. Budapest and Pest county have retained their dynamic growth whereas certain counties in the Southern Great Plain and Zala county displayed a below average wage increase. When analysing income statistics, we must not ignore the ratio of private and public sector workers. The table does not highlight the above-average wage increase recorded in Nógrád county for a long period of time. This county in the north of Hungary was at the bottom of the list for a long time, but this changed in 2003 when it moved up to 15th. This improvement is due to the already mentioned ratio of the public and private sector. In Nógrád county, the number of jobs is so low that the wage increase in the public sector induced a considerable improvement, which for a long time was over the national average.

According to the data of the mid-1990s, *FDI per capita* was outstanding only in two Transdanubian counties, Győr-Moson-Sopron and Vas, as well as in Békés county in addition to the capital. Data from 2003 already shows some counties closing the gap. Whereas the Transdanubian counties were joined by Komárom-Esztergom and Fejér county, the northern and eastern parts of the country also showed a considerable improvement. In spite of this, the difference between the county with the highest and lowest number of foreign investors rose from 22-fold in 1994 to 25-fold in 2003.

In terms of per-unit investment data, Győr-Moson-Sopron and the North-Transdanubian counties²³ were in the lead, surprisingly joined by Borsod, Hajdú-Bihar and Jász-Nagykun-Szolnok counties. Budapest and two West-

²³ North-Transdanubia: Fejér-, Komárom-Esztergom-, Veszprém counties

Transdanubian counties²⁴ Vas and Zala are in the group with below average per unit FDI investment figures.

Looking at the number of *foreign enterprises*, Budapest, Komárom-Esztergom, and Szabolcs-Szatmár-Bereg, Pest and Vas counties stood out from the rest. The extremely high figures in Szabolcs-Szatmár-Bereg county are related to the changes in the legal background pertaining to the establishment of economic partnerships, which resulted as of 2001 in a high number of Ukrainian natural persons registering their enterprises in the county, mostly in the area of 'multi-level marketing'.

In 1994, the national rate of *unemployment* stood at 10.7 percent. Two counties in Transdanubia – Komárom-Esztergom and Zala – registered similar data, the Central Hungarian region as well as Vas, Fejér, Csongrád and Békés counties were below the national average.

The ranking in terms of unemployment ends with Borsod, Nógrád, and Szabolcs-Szatmár-Bereg counties which are about 1.5-times the national average. On the basis of the 2003 unemployment data, a varied picture emerges. On the one hand, Nógrád, Hajdú-Bihar and Jász-Nagykun-Szolnok counties improved their rankings, but on the other hand, Borsod, Szabolcs, and Heves counties did not change positions significantly, they are still at the bottom of the list.

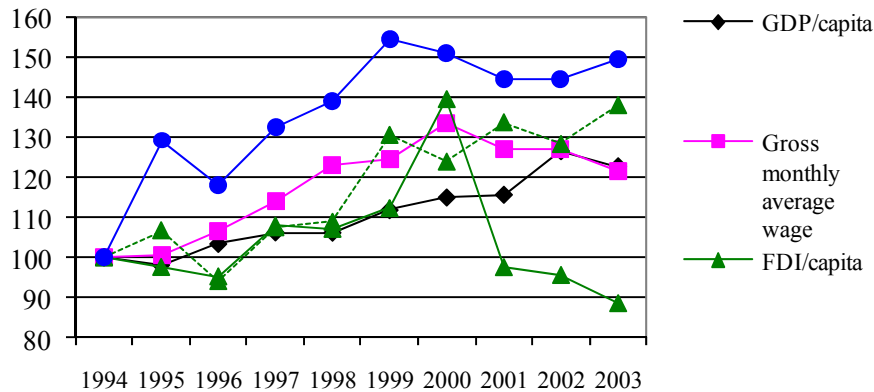
At the same time, however, we cannot ignore the impact of job creation because in Nógrád county, in spite of the unfavourable position of the county, the number of those out of work has been reduced considerably. In the northern county similarly to the developed Transdanubian counties and the capital, the rate of unemployment has rapidly decreased.

In 2003, in addition to the capital it was only Győr-Moson-Sopron where the rate of unemployment was below four percent, which essentially can be considered as the natural rate of unemployment. Therefore, these counties cannot produce such a considerable drop in the rate of unemployment as regions with high unemployment rates.

Figure 3

²⁴ West-Transdanubia: Győr-Moson-Sopron-, Vas-, Zala counties

Weighted relative spread between 1994 and 2003 1994=100



Source: own Figure based on HCSO data

The regional distribution of *GDP/capita* was rather uneven between 1994 and 2003. In the case of *GDP/capita*, the weighted relative spread of 41 percent in 1994 increased by nearly ten percent to 50 percent by 2003. In the analysed period, this variable of all showed the most unambiguous trend of increased regional inequalities. The *GDP/capita* indicator, in spite of all the methodological problems and reservations concerning its use as the single indicator of development, has shown a widening gap during the analysed period at county-level and increasing inequalities throughout the country.

The regional distribution of the *gross monthly average wage* of wage earners had exhibited the dynamic growth of inequalities until 2000, from 15 percent to 20 percent. After the year 2000, the spread values dropped and/or stagnated, then after a further decline in the last year stabilised at 19 percent.

By contrast, the regional distribution of *FDI* per capita started to show convergence. This occurred during the last two years we have data from, between 2001 and 2003. Due to the shortness of the time series and in order to confirm the trend, we calculated the spread excluding data for Budapest. Even if the capital's share in incoming FDI dropped from 70 percent at the beginning of the decade to 50 percent by 2003, this share still has a significant impact on the distribution of regional data. Based on the resulting time series there is a slight but clear increase in the spread data, indicating that in addition to the overweighting of the capital, the uneven county distribution of FDI even in the short run will have a polarising effect on regional development, which is confirmed by the average spread of the *GDP* per capita data at county level.

During the 10-year time series regarding the regional distribution of the *unemployment rate* we identified five periods of growth. From the first year until 1995, when an increasing trend of inequality unfolded, the spread value peaked at 32 percent. This was followed by a slight adjustment, by 1996 the spread value had dropped to 30 percent. Between 1996 and 1999, the inequalities rose again to 38 percent, then a slight adjustment is followed by stagnation. From 2002 to 2003,

a period of growth was observed. Amongst the variables examined, FDI and the unemployment rate produced the most hectic changes. This results from the uncertainty factor that is linked to the labour market reacting the most sensitively to changing economic cycles.

Relations between the indicators

In the course of the regional analyses the question arises as to what extent individual indicators move in tandem, whether or not it is possible to establish some causal relationship between them. In our case, the key indicator is the regional distribution of FDI. The intensive role of FDI and foreign enterprises in the Hungarian economy is obvious.²⁵ We all know the influence FDI has on employment, the structure of exports,²⁶ the balance of payments, the budget and investments²⁷. Even by means of simple statistical methods, correlations can be drawn between the intensity of investments and corporate performance, export capability, wage outflow, sharing taxes and the increase in added value, not only at the level of the national economy but also at the level of counties.²⁸ We quantified the impacts of FDI on the spatial structure by establishing the strength of the correlation between FDI and the other indicators.

However, when analysing *economic development* (GDP/capita) and FDI we came to surprising conclusions, which although do not run counter to the assumption that investments have a decisive role to play in the first stage of regional economic growth, it does call into question the long-term decisive effect of growing capital investments. This also provides a further field of research for the separation of capital investments according to the level of technology.

The relation between FDI and regional development was obvious and increasingly strong in the first period between 1994 and 1997. As of the end of the decade, however, the correlation between the two indicators clearly weakened, dropping from an extremely strong value to a strong value ($r =$ below 0.9). The process confirms the regional inequality trends described in the introduction of this paper, according to which the regional restructuring as of the middle of the decade has been based on growth. In this case, it means that local growth is driven by mature productive investments.

The relation between the *monthly gross average wage* and FDI/capita is very similar to the trend between GDP/capita and FDI per capita. The correlation between the two indicators is between the two extremes, 0.82 and 0.93, then a steady decline sets in from 2000, which ends in 2003 at 0.85. When analysing the outcome though, we have to take into account the fact that in 2001 the process of wage correction started (minimum wage increase and wage increase in the public sector), and the convergence of wages, which can be traced through the declining spread values of the monthly gross average wages, significantly distorts real market processes. The regional distribution of wages reflects less and less the regional distribution of foreign enterprises.

²⁵ Hamar (2001).

²⁶ Éltető (1999).

²⁷ Molnár (1999).

²⁸ Hamar (1999): pp.16-17.

The relation between the *unemployment rate in the counties* and the county-level FDI/capita changed in 2000, when after the hectic changes in the negative correlation, the inverse relation increased from -0.36 to -0.65, which comes very close to a strong correlation. This highlights the job-creating role of investments, even if in this period these enterprises employed not more than 25 percent of all the labour force in the private sector (HCSO 2004).

The hectic changes of regional development all indicate differentiation. During the ten years covered by the analysis regional development gaps at county level widened.

The spread values calculated on the basis of counties together with Budapest show a levelling off in the regional distribution of FDI. However, if Budapest is excluded from calculations, the spread values indicate a sharp divergence, generating new inequality centres instead of evening out the regional distribution of variables. In a positive sense this might result in the emergence of counterweight(s) to Budapest, the three counties that could potentially assume this role are primarily Győr-Moson-Sopron, Komárom-Esztergom and Pest.

Partly due to the evening out of wages, the income level shows convergence. By contrast, the differences in the unemployment rate are growing owing to deteriorating macroeconomic data.

The interdependence of FDI and regional development first shows a rising then a falling trend, similarly to the gross monthly average wage and FDI/capita. Contrary to this, the rate of unemployment indicates a strong inverse relation in the last period of the analysis, derived from the high territorial concentration of investments. Individual regional development paths determining the new spatial structure display a high degree of regional differentiation in terms of development indicators in individual regions. Growth and decline at macro level determined by economic cycles diverge regionally to a substantial degree, and in some cases these divergences are extreme. Certain regions react more promptly than others to circumstances changed by economic cycles. This is not just due to the different regional dynamics but also to the 'inherited' sectoral structure and the government's development policies. Based on experience in the 1970s and 1980s we come to the conclusion that the mono-cultural production structure shaped by a mono-sectoral development policy implies several risks at regional level, as does supporting investments taking no heed of the amounts or nature of the assistance.

The requirement to reduce regional, social and economic disparities has surfaced with renewed momentum after Hungary's accession to the EU. Several Hungarian and international analyses have been elaborated on the current situation and the possible solutions, however, in the light of the strategic documents published so far it seems that results of professional work do not always translate into practice.

References

Dusek, T. (2000): A regionális GDP számítás problémái (The problems of calculating regional GDP). *Kisalföldi Gazdaság* 2000., 24 March, Győr-Moson-Sopron Megyei Kereskedelmi és Iparkamara

Dusek, T. (2004): Területi jövedelmi folyamatok Magyarországon (Regional income processes in Hungary). in Magyar Földrajzi Konferencia, 2004, Szeged, CD ROM (www.geography.hu) p. 21.

Éltető, A. (1999): A külföldi működőtőke hatása a külkereskedelemre négy kis közép-európai országban. (The impact of FDI on foreign trade in four small Central and Eastern European countries). *Közgazdasági Szemle*, January 1999., pp. 66-80.

Hamar, J. (2001): A külföldi és a hazai tőkével működő vállalatok szerepe az iparban. (The role of companies operating with domestic and foreign capital in industry). *Külgazdaság*, April, pp. 4-34.

Hamar, J. (1999): A külföldi működőtőke beáramlásának területi és szektorális jellemzői Magyarországon. (The territorial and sectoral features of FDI influx in Hungary). *Kopint-Datorg, Műhelytanulmányok*, Vol. 31.

Hováth, Gy. (1992): A magyar regionális politika súlypontjai. (The focuses of Hungarian regional policy). *Tér és társadalom* 1-2, pp.1-15.

Illés, I. (1992): A területfejlesztés irányításának kérdései. (Questions related to the management of territorial development). *Tér és Társadalom* 1-2, pp.1-15., p. 59.

Klekner, P. (1987): Az ipar területi fejlődése (The territorial development of industry). in Bartke, István (1987), A területi fejlődés fontosabb változási tendenciái az elmúlt évtizedben (Major tendencies of changes in territorial development in the last decade) (1971-1985). pp. 14-32., *Tervgazdasági közlemények*, Országos Tervhivatal Tervgazdasági Intézet, Budapest

Kornai, J. (1993): A szocialista rendszer. (The socialist system). *Heti Világgazdaság* Kiadói Rt. Budapest

The Statistical Yearbooks of the Hungarian Central Statistical Office

Magyar Nemzeti Bank, Fizetésimérleg módszertan, módszertani megjegyzések (National Bank of Hungary, Current account methodology, notes on methodology)

Major, K. – Nemes Nagy, J. (1999): Területi jövedelemegyenlőtlenségek a kilencvenes években. (Territorial income inequalities in the 1990s). *Statisztikai Szemle* 77/6. June, pp.397-421.

Sándor, I. (1996): A konjunktúra-jelzőszámok regionális különbségei 1995-ben. (Regional differences between indicators of economic cycles). *Statisztikai szemle* Vol. 74. Issue 12. December 1996., pp. 981-990.

Molnár, B. (2001): A külföldi működőtőke-befektetés hatásai a magyar gazdaságban. (The impacts of FDI on the Hungarian economy). *Gazdaság és statisztika* 2001/1. pp.10-18.

Nemes Nagy, J. (1987): Meghatározó tendenciák a területi fejlődésben (Decisive tendencies in territorial development). in Bartke, István (1987), A területi fejlődés fontosabb változási tendenciái az elmúlt évtizedben (Major tendencies of changes in territorial development in the last decade) (1971-1985). pp. 134-137., *Tervgazdasági közlemények* Országos Tervhivatal Tervgazdasági Intézet Budapest

Nemes Nagy, J. (1995): A GDP regionális számbavétele (The regional accounting of GDP) in Probáld F.(ed.) *Pro Geographia Humana*, ELTE Eötvös Kiadó, Bp., pp.99-118.

Nemes Nagy, J. (2001): Az ezredvég regionális folyamatai Magyarországon: átfogó átalakulás – egyedi fejlődési pályák (Regional processes at the end of the millennium in Hungary: comprehensive transformation – individual development paths.). in *ELTE Regionális Tudományi Tanulmányok*, 5. Budapest, ELTE Regionális Földrajzi Tanszék, pp. 23-33.