

Resume

Reform or quiet vegetating? Manufacturing industry in the small towns of the Northern Great Plain Region at the turn of the millennium

Motivation of topic choice

The aim of the current Ph.D. thesis is to provide an analysis on the post-transformation situation of the manufacturing industry in the small towns of the Northern Great Plain. The choice of the Northern Great Plain as a territorial framework has been motivated by the operation of the region as a planning unit and the consequently easier accessibility to the available statistics. The selected range of settlements constitutes an economically-socially *problematic* but *important group of settlements* with respect to the competitiveness and inner cohesion of the region. Therefore, their study may substantially contribute to the background knowledge supporting the development of the region.

The *small towns* of the Northern Great Plain – aside from few exceptions – do not have dominant positions in the *spatial structure of the Hungarian industry*. Nevertheless, the research of the industry of the above settlements may be justified by three basic reasons: first of all, the *past* (and still felt) *effects* of the sector influencing the development of these settlements, secondly, its – mostly still important – *role* played in the local employment and thirdly, *its presumed importance in the future*. In the lack of a competitive industry – in most cases – there is only a small chance for the development of such an economic base that may eventuate the strengthening of the positions of these settlements.

Objectives, database, methods

The dissertation has several objectives in view:

- firstly, to provide a review on the *global and domestic environments of the industries* of the studied towns discussed by the special literature, on the *antecedents* before the transformation, and on the *positions* occupied by the towns of the Northern Great Plain in the current *industrial spatial structure*;
- secondly, to analyse the *weight of the industry of the Northern Great Plain* – which actually provides the *regional framework for these towns* – in *national terms* after the transformation (in harmony with the global upgrading of the region as a production unit);
- thirdly, to analyse the *economic performance* and differentialisation of the *studied towns* in the period following the transformation and to find links between their manufacturing industry and their total economic performance;
- fourthly, to provide a picture on the *regional disparities* and sectoral peculiarities characterising the manufacturing industries of the small towns in

the Northern Great Plain in our days, to identify the *dynamic segments* of the sector and the discrepancies of the industrial structure of the small towns observed in comparison with the rest of the region;

- fifthly, to search for general trends in the *territorial distribution* of the manufacturing industries of small towns, to explore the *roots of the current manufacturing industry prior to the transformation* and to examine the predominance of the *agglomeration effects* in the manufacturing industry of these small towns which are regarded more and more upgraded;
- finally, to *explore and explain* one of the determining elements of the territoriality of the small town industry in our age of global and regional embeddedness, the *spatial aspect of the relationships* between the enterprises in manufacturing industry.

The analyses in the dissertation are based on data partly derived from secondary (published) sources and partly supplied by a primary questionnaire-based survey conducted by the author.

- The *regional-settlement industrial statistics* are supplied by the regional and county statistical yearbooks of the CSO and the databases of the last two censuses. The “Cég-Kód-Tár” database – containing information on the active joint enterprises – of the CSO was used for grasping and interpreting the latest tendencies by settlements and by sectors. The database of the “Cégközlöny” and the publications entitled TOP 100 and TOP 50 (2005) – distributed by the county press or the County Chamber of Commerce and Industry – providing information on the most significant enterprises of the three counties concerned were used to specify the data provided by the “Cég-Kód-Tár”.
- The target group of the *questionnaire-based survey conducted by the author* consists of the approximately 1560 partnerships involved in manufacturing in the small towns of the Northern Great Plain. Its aim was to disclose the connection, dynamics and spatial relationship systems of the manufacturing industrial enterprises with the period prior to the transition. The interviewed approximately 740 enterprises sent back a total of 141 filled-in questionnaires (this provides information on approximately 9% of the companies involved in manufacturing in the studied towns – though, the large and medium sized enterprises were over-represented in comparison with their actual ratios).

Various *regional analytical methods* – including the potential model –, tables graphs, charts and *cartographic representations* were used in the processing of the database compiled in the course of the research and for the presentation of the outcomes. In the course of the demonstration of the surveys and their results, the Microsoft Word, Excel, Paint, and Power Point programmes, the SPSS 11.5 for Windows, and the ArcView Geographic Information System software were used.

The global and domestic environments of the industries in the small towns of the Northern Great Plain

The global approach affects two processes – influencing the spatial aspect of industrial production – in the world economy which became more and more determining from the seventies onward: the flexible production which characteristically came to the front in the Post-Fordist period and the internationalisation of industrial production. The following chief observations may be established in relation to the processes affecting the development of the industry of the selected small towns:

- The coming into prominence of *flexible production* has been promoted by the lessening of the demand on mass products, the segmentation of the markets and the increasing competition on the world market since the seventies. A remarkable deindustrialisation process took place on the traditional industrial areas of the developed countries while new *industrial regions* were often formed geographically detached from the former centres of industrial production which were partly *technologically-based* – relying on the application of new technologies – and were partly based on a so-called “innovative milieu” specialised in innovation and design-demanding products built on *small-scale industry and handicraft*.
- The demand for flexibility and adaptability upgrades the importance of the *agglomeration advantages* resulting from the spatial concentration of the economic actors. Therefore, the geographically concentrated *clusters* of competing and cooperating enterprises involved in the same sector, their related and supporting industrial branches and the institutional infrastructure serving them get a more and more significant role in the spatial structure of the new economy.
- In the age of the *globalisation of the world economy* evolving as a consequence of the development of the communication-transport infrastructure and deregulation, the *internationalisation of industrial production* plays a more and more significant role. The shift of the geographic centre of gravity generated by the global optimisation endeavours of the transnational companies of certain industrial segments is an integral consequence of the above, resulting in the *(re)industrialisation of the semi-peripheries – including East Central Europe – of the world economy*.
- In this global reference system, the future activity structure, competitiveness and growth of the industry in the small towns of the Northern Great Plain depends on *the sphere of action in which Hungary and the Great Plain joins the system of international distribution of labour*. On the other hand, its success is decisively influenced by the fact *whether it is able to develop flexible production zones – with a local centre or joining to other centres*.

In the course of the analysis/overview of the Hungarian condition system, special emphasis was laid on the pre-transition industrial heritage of the studied towns and on the dominant processes of the post-transition period and their impacts on the spatial structure of the industry and the situation of the industry of the Great Plain in the nineties. The main conclusions elaborated in the dissertation can be summarised as it follows:

- The studied towns were characterised by a *belated industrialisation* based on several factors but primarily relying on the large number of local labour force released from agriculture after the Second World War and more especially in the sixties. A considerable number of industrial employees appeared in many of the small towns.
- The *low technological* level, the marginal local embeddedness, the over-representation of the *divisional industry depending on exterior decisions* was a particular feature of the industry of the Great Plain and the studied towns which actually made the local industry defenceless and added to its uncompetitiveness within the market economy.
- In the post-transition Hungary, the *sectoral structure* of the industry changed (machine industry became dominant) and – due to the intensive reduction observed in the various industries similarly to the post-industrial transformation of the developed countries – the *falling into the background of the industry as a whole replaced by the service sector* may also be observed as a consequence of the transition to the *market-based economic system* and the *world economic reintegration* transition.
- The appearance of the *foreign working capital in industry* played a decisive role in the transformation of the inner structure of the industry. The relations between the export-oriented dynamic corporate enterprises with foreign capital and the Hungarian-owned economics, however, are still not developed in spite of the significant progress of the past few years. Consequently, the loosening of the *dual economic system* produced by the globalisation process became a central question of the Hungarian economic policy.
- The strong concentration of the *dynamic elements* of the sector *in the northern part of Transdanubia and in Central Hungary* is a spatial consequence of the industrial transition processes generated by the change of regime. In addition to the agglomeration of the industrial production – mainly in automotive industry, electronics and wood industry –, endeavours to develop clusters may also be observed. The *dynamics of industry* is much *smaller on the Great Plain* which is characterised by a more intensive reduction of the old structure and the *more moderate foreign direct investment activity* bringing reform.

Sectoral and settlement frameworks of the industries in the small towns of the Northern Great Plain

The study of the entire region related to the industry of the small towns on the Northern Great Plain was made reasonable partly by causal nexus (the positions of the region within the country correlate with the industrial performance of the studied towns, and – as a consequence of the upgrading of the agglomeration and clusterisation – greatly influence its growth potentials) and partly by the fact that most of the data related to industry was available on the county level (the exploitation of the latter for the better acquaintance with the local circumstances is possible through a preliminary regional survey). Numerous statements were made on the industry of the region based on the study carried out in the chapter which actually more or less support the findings met in the technical literature:

- The past one and a half decade history of the Northern Great Plain is characterised by *laggard dynamics and development indicators* in comparison with the majority of the regions which is due to the lower investment performance of the foreign working capital.
- The industry of the Northern Great Plain represents a relatively significant weight in Hungary while *the weight of the sector within the economy of the region does not differ* much from the national indicators. The following may be concluded from the latter: the relative underdeveloped level of the industry expressed by the specific indicators does not only have economic structural causes but it is also paired with the overall unfavourable situation of the economy.
- It is typical of the structure of the manufacturing industry of the Northern Great Plain that mostly the significance of the *sectors producing low added value* (textile, clothing and leather product manufacturing, food, beverage and tobacco industry) exceeds the national average. The machine industry being the most dynamic in the country has an outstanding concentration only in Jász-Nagykun-Szolnok county.
- The *significance of the industrial parks* playing an important role in the structural adjustment of the industry and its post-transition dynamisation *is lagging behind the majority of the Hungarian regions* and only the industrial parks of Debrecen, Nyíregyháza, Jászfényszaru and Jászárokszállás can boast of considerable achievement on the national level.

The situation of the industry of the region foreshadows the whole not too significant industrial dynamics of the towns of the region and does not really create advantageous opportunities for their growth. The study of the global performance of the urban economics beyond industry was principally necessary because there was no annually updated database on the settlement level related to industry (manufacturing) for the entire studied period. Therefore, – presuming a close

connection between industry and the whole of the economy – the indicators characterising the whole of the local economy were initiated in the research. The study of the economy of the small towns of the Northern Great Plain offered the following outcomes:

- It has been established – partly reinforcing the all-time outcomes of the researches concerning the settlement network of the Great Plain – that the economy of the studied towns is characterised by a *dynamics below the regional average*, a *shrinking share from the total performance*, and a *development level somewhat under the average of the Northern Great Plain*. Their economies, however, are more export-oriented than that of the region.
- The economic performance of the sixty towns as a whole is characterised by *increasing differences and intensifying polarisation*: only three towns (Jászárokszállás, Jászberény, Nagykálló) performed above the average in all aspects on the basis of the dynamics of the gross added value used for the estimation of the GDP on the settlement level and the absolute and specific values of export sales being capable for measuring the globalisation level of the studied settlements. This reflects the *insular nature of modernisation* within the studied group of towns.
- A considerable part of the economic performance of the towns is provided by few leading enterprises; *relatively close connection could be detected between the industrialisation level of the towns and their economic development*: in the case of the three towns with outstanding performance. The exceptional indicators unequivocally resulted from the presence of manufacturing industry.
- Confirming the outcomes of the former comparative studies emphasising the unfavourable national positions of the small towns of the Great Plain, it was established that the *studied settlements are under-represented in the group of the most significant Hungarian urban economies*. This reflects the relative weakness of economy in most cases and/or – partly surviving as the heritage of the past – its strong external control and the lower importance of the local actors.

Manufacturing industry in the small towns of the Northern Great Plain at the millennium

Following the review of the regional sectoral and settlement frameworks, the industry of the small towns got into the focus of the further research. The first subchapter concentrates on the *regional dynamics of the manufacturing industry* of the small towns and on their *absolute and relative differences by towns*. The main findings are the following:

- Supporting the motivation of the topic choice of the dissertation from another aspect, it has been established that the *manufacturing industry* of the small

towns in the Northern Great Plain region represent a *significant* and – in parallel with the growth of the size of enterprises – unanimously increasing *weight both within the industry of the region and the economies of the studied towns*.

- Reflected by the data on industrial employment, all studied settlements are characterised by a level of industrialisation *exceeding the regional average* but falling below the national average in the post-transition period, and regressive lagging in comparison with the county seats. Many of the towns inherited considerable industry and played an important role in the employment of their environs. The *generic* – but differing scale of – *reduction* of the sector was accompanied by a *retrogression of commuting to the small towns* and by an increase in the number of the net labour force emitting small towns.
- In 2006 – according to the data on joint enterprises – the *manufacturing industry* of Jászberény, Törökszentmiklós, Martfű, Mezőtúr, Karcag, Hajdúböszörmény, Hajdúnánás, Mátészalka and Kisvárdá was *the most significant* from among the studied settlements.
- The number of *joint enterprises operating in the field of manufacturing* in the small towns grew and their spatial concentration decreased in the past years. Resulting from their traditions, food industry, textile, clothing and leather product manufacturing were the most generically prevailing industries. The most extensive *industrial concentrations* from the aspect of employment were related to machine industry, textile, clothing and leather product manufacturing. Most of the enterprises with the highest turnover were engaged in machine industry with foreign capital.
- The outstanding importance of the *industry of the towns in the Jászság area* – also confirmed by the statistics on employment in the censuses of Jászberény – was especially spectacular in the case of the enterprises with the highest turnover.

The second subchapter introduces the *(dynamic and static) structural characteristics* of the manufacturing industry in the small towns of the Northern Great Plain offering the following establishments:

- In the past years, it was the *number of enterprises* with a low number of employees and a high turnover which *grew* in the manufacturing industry of the small towns. As far as the various industries are concerned, the building material industry, metallurgy, metal-working, wood, paper and printing industry and the publishing activities showed considerable dynamics. On the whole, the weight of manufacturing in the small towns grew within the region.
- *Most of the enterprises in the manufacturing industry of the small towns* are involved in metallurgy, metal-working and food industry. The majority of these joint companies are microenterprises. Compared to the whole of the region, the enterprises with bigger potentials in the fields of textile, clothing

and leather product manufacturing, metallurgy, metal-working and machine industry had a bigger role in the industrial structure of the studied towns.

- According to the outcomes of the questionnaire conducted among the enterprises involved in manufacturing industry – in accordance with the general tendency of improvement in industrial productivity –, the *increase in revenues is the most widespread*, while the increase in the number of employees is the least characteristic feature. The *duality of the Hungarian economy* – as reflected by the state of 2006-2007 – appears in the manufacturing industry of the studied settlements since (practically showing the direction of the change in the structure of industry) the foreign owned large-scale enterprises in the fields of chemical industry, mechanical engineering, metallurgy and metal-working proved to be the most dynamic actors.
- The bigger towns are usually characterised by the *presence of diverse industries*. In most places, the *food industry, textile, clothing and leather product manufacturing, metallurgy, metal-working and machine industry* have considerable weight. The significance – highly exceeding the national average – of the textile, clothing and leather product manufacturing in the small towns and in the region on the whole calls attention to the fact that the reduction of this industry – which is in crisis constrained by the international processes and currently the highest labour force emitting industry in Hungary – amounts to serious regional consequences in the field of employment.

Peculiarities of the field location of the small town industries

The fifth chapter of the dissertation offers a more general approach and up-to-date – besides the actual location features of the settlements and in harmony with the economist trends emphasising the importance of the spatial dimension – survey of the *factors standing in the background of the spatial aspect of the small town manufacturing industry and its certain industries*. The following conclusions were drawn:

- The differentiating role of the time factor concerning the accessibility by road from the distinguished economic nodes – Budapest and the county seats of the region – was not unequivocal. Nevertheless, both the number of manufacturing industrial enterprises and the number of their employees projected to the number of population grew *together with the growth of the size of the towns*.
- The unanimous tendencies of the survey repeated allowing for the dates of declaration as towns, and the answers given to the question exploring the socialist industrial antecedents suggested a *determining role for the industrial heritage deriving from the period prior to the change of regime* – especially in the case of the large-scale enterprises. It was the case in spite of the fact that more than one and a half decades have passed since the change of regime and

the divisional industry – strongly characterising these small towns – partly proved to be incapable of surviving.

- However, according to the data on the joint enterprises involved in manufacturing industry and suggested by the pieces of information collected by the questionnaire about the dynamics of the certain enterprises, they are characterised by a *transformation of the inherited spatial structure*. The manufacturing industry of the small towns in the proximity of the *county seats* or *Budapest* seems to be *more dynamic* which draws attention to the growing importance of the agglomeration processes.
- The *impact* of the *agglomeration advantages* on the spatial distribution of the small town manufacturing industry – demonstrated by the potential model – *is yet not unanimous*. Taking the still considerable heritage of the socialist industrialisation as a basis, this is not surprising because in the pre-transition period the settlement of the industries was built on the labour resources in a decentralised way. The relative “miscarriage” of the studies may be also explained by the liberality of the use of the applied potential model which may be criticised at many points.
- The author finds it justified to continue the analysis based on the potential model, in the course of which the *intensification of the analytical depth*, that is the research on the level of the subsectors – for instance, meat industry, shoe manufacturing or manufacturing domestic appliances –, and the timely extension of the calculations, that is the *study of the dynamics of the processes*, may hold out a promise to new outcomes.

Spatial relationship system of the small town manufacturing industry

Various factors called for the analysis of the *spatial relationship systems of the enterprises involved in manufacturing industry*. First of all, the low local relationship system of the divisional industries defining the small towns prior to the transition period together with its disadvantages; secondly, the duality of the Hungarian economy developing in the nineties, the large-scale enterprises with foreign working capital and the priority of strengthening relationships of the Hungarian enterprises in the economic policy; thirdly, the modernising role of the joining of the various settlements and regions into global networks, and the differences between the developed and backward regions in this respect discussed in the technical literature account for the rise of interest. Taking the examples of the Post-Fordist success regions, the survey included the co-operations between the enterprises apart from the value chain system and their spatial dimensions.

The questionnaire revealed the following in reference to the inputs, product sales and other relations of the enterprises:

- The manufacturing enterprises in the small towns are most closely related to the studied towns with respect to the *labour supply and service-purchases*

while the *raw material and asset acquisitions* from among their inputs are more likely to be dispatched on a county-regional level, in Budapest, or abroad.

- Considerable differences may be observed from the aspect of the spatial factor of the inputs by the *industrial, magnitudinal and ownership characteristics*. The companies involved in machine industry, chemical industry, textile, clothing and leather product manufacturing, the large-scale enterprises and the foreign companies are more likely to solve their labour force supply and service-purchase outside the studied towns. The raw material and asset acquisition from abroad characterises the machine industry, the chemical industry, the large and medium-sized enterprises and the companies with foreign proprietors.
- As far as the *outlet markets* are concerned, the foreign relation, the county represented by the interviewee and Eastern Hungary occupied the first places. The spatial aspect of product sales also differed by the *industrial, magnitudinal, ownership and spatial characteristics of the enterprises*. The machine industry, textile, clothing and leather product manufacturing, the large-scale companies and the companies with foreign proprietors are more likely to orient abroad, while the enterprises involved in food industry and building material industry, the microenterprises and the domestic companies were interested in the local – county – regional markets.
- The enterprises clung to the *bigger towns* more strongly both in the field of the acquisition of the inputs and the product sales – while the *proximity of county seats* usually resulted in stronger clinging to their economies.
- The sale for *other manufacturing industrial enterprises* (conveyance) was the most characteristic in the cases of mechanical engineering, metallurgy, metal-working, chemical industry and in the categories above the microenterprises; the enterprises concerned were in contact with large-scale enterprises, companies with foreign ownership and the representatives of machine industry, metallurgy, metal-working, and chemical industry in the biggest ratio. The sales for other manufacturing industrial enterprises were principally combined with a serious role of the foreign market.
- The *co-operation within the manufacturing industry* – presumably due to the low level of the collective trust – is relatively *poor and simple*. The contracted and *formal relations* are more widespread, the most often occurring cooperation field is the joint production. The inter-entrepreneurial co-operations usually mean *more permanent partnerships* and the *geographical proximity* greatly influences their spatial dimension. The *contact with other economic actors* proved to be more developed. Most often the labour bureaus, the economic chambers, professional corporate organisations, and the self-governments and their institutions appeared as partners.
- The participation in the various co-operations mainly characterises the *textile, clothing and leather product manufacturing*, and the bigger *enterprises*. The *proximity to the distinguished settlements – Budapest, county seats* – and the

bigger size of the settlement are usually favourable for the frequency of the relationships both between the enterprises and with the other economic actors.

Part of the industry of the studied towns survived the period when the economic transition generated by the change of regime affected the region especially adversely. Although, the region itself did not become the central stage of the industrial modernisation of the past one and a half decades but the economic actors representing the sector still have an important role in the economy of these settlements. The foreign working capital also appeared in the industry of the small towns of the Northern Great Plain and resulted in considerable economic dynamics in the case of some settlements. The industry of a narrow group of the studied towns confirms a powerful reform and growth, however, the role of industries and towns with weaker dynamics is above the national average. The nature and performance of the manufacturing industry influences the economic positions of these settlements and their situation within the settlement network. The “growing islands” appearing in the region raise hope for the dynamisation of the manufacturing industry and for the strengthening of the economic base on many settlements (including many small towns) in the future facilitating the intensification of the inner cohesion of the region.