



SPATIAL IMPACTS OF POST-SOCIALIST INDUSTRIAL TRANSFORMATION IN THE MAJOR HUNGARIAN CITIES

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Summary

Compared to cities in the more developed Western countries, significant changes in the industrial bases of Eastern European cities were rather belated, and the process only accelerated after 1989 when radical economic and social reforms were introduced. The main objectives of this study are to reveal the most important similarities and differences in the spatial impacts of post-socialist industrial transformation on the major Hungarian cities (Budapest, Debrecen, Győr, Miskolc, Pécs and Szeged). The capital city and other major cities display divergent development trends owing to the changes in the post-socialist industrial space and landscape.

KEY WORDS ★ Hungary ★ industrial transformation ★ urban land use

Since the 1970s developed Western cities have experienced significant changes induced by numerous factors (e.g. accelerating globalization, developing technologies, increasing tertiarization, differences in power relations) but with respect to their industrial bases, these changes can be traced back to shifts in the world economy. As a result, there has been industrial restructuring and transformation of industrial space (Camagni, 1991; Doling and Koskiaho, 1994; Rodwin and Sazanami, 1991; Takeuchi, 1985). In Eastern European cities, however, these changes began belatedly and they accelerated only after 1989, when radical economic and social reforms were introduced in the wake of

changes in the political system. Thus, in this part of Europe, the industrial transformation has been accompanied by the dismantling of the socialist system and by efforts to establish market economies.

Previous research on this process of transformation has emphasized the investigation of the socio-economic processes taking place in Eastern Europe's capital cities (Gritsai, 1997; Kiss, 1999; Korec, 1997; Potrykowska, 1995), probably because these are the most innovative areas in the countries in question, and display the most immediate responses to emerging challenges (Kluczka, 1996). As a result, the changes in other urban settlements have been relatively neglected. This explains why the industrial transformation of the largest Hungarian cities (Debrecen, Győr, Miskolc, Pécs and Szeged, but excepting the capital city) and related spatial consequences were the focus of research carried out between 2000 and 2001 (Kiss, 2001). This study demonstrates the most important results of that research relating to changes in industrial space. However, the largest city, Budapest, has also been included in this analysis in order to produce an overall picture of post-socialist industrial land use and space in the main Hungarian cities (Kiss, 1999). Compared to Budapest, with a population of 1.8m, the population of the other cities is far smaller (Debrecen 204,000, Győr 127,000, Miskolc 172,000, Pécs 157,000 and Szeged 158,000). They form a 'half ring' around the capital and are situated in different parts of the country relatively close to the national border.

Industry has long played an important but variable role in the development of the major Hungarian cities (Tables 1 and 2). Their industrialization began in the second half of the 19th century and continued after the Second World War. Initially, most of the industrial areas developed along the major transport routes and/or close to sources of raw materials. Among the major cities, Budapest possessed the largest industrial area (more than 4,500 ha) in the 1980s, while the regional centres had only a few hundred hectares each, although their

Table 1 Significance of major cities in Hungarian industry

	Share of all Hungarian employees (%)		Share of all Hungarian industrial plants (%)		Share of all Hungarian industrial investments (%)		Share of all FDI in Hungary (%)	Share of gross value of Hungarian industrial fixed assets (%)	
	1990	1998	1990	1998	1990	1995		1990	1998
	Budapest	21.7	14.1	30.5	12.0	19.0	13.4	10.3	21.0
Other five major cities	14.6	14.5	11.0	7.5	10.2	7.2	21.8 ^a	12.3	12.1

Note: ^a The data are for the counties to which each city belongs. The cities studied are the primary destinations of industrial investments with foreign interests in their county.

Sources: *Industrial Almanac* (1998); *Regional Statistical Yearbook* (1990; 1995; 1998); *Statistical Yearbook of Budapest* (1990; 1995; 1998).

Table 2 Selected industrial characteristics of the major Hungarian cities

	Share of industrial firms of all firms in the city (%)	Industrial employees as % of total labour force in city (%)		Industrial investments as % of all investments in the city (%)		% of industrial firms all in part or full foreign ownership (%)	Gross value of industrial fixed assets per 1,000 inhabitants (US\$)
		1990	1998	1990	1995		
		1998					1998
Budapest	9.8	13.8	9.4	24.3	22.2	9.9	1,098
Debrecen	3.6	15.1	8.3	44.0	31.6	10.0	1,135
Győr	6.6	23.6	17.6	59.7	48.5	11.8	4,095
Miskolc	4.8	20.4	9.5	41.1	38.4	5.7	1,301
Pécs	3.9	14.8	8.0	44.1	32.5	10.8	1,521
Szeged	3.8	15.2	9.2	41.5	32.5	9.2	1,883

Sources: *Industrial Almanac* (1998); *Regional Statistical Yearbook* (1990; 1995; 1998); *Statistical Yearbook of Budapest* (1990; 1995; 1998).

share of the administrative area occupied by industry was higher (10–20 percent) compared to the capital (9 percent) (Kiss, 2001) (Figure 1).

Since 1989, radical reforms (organizational, proprietorial, structural etc.) have been implemented in Hungarian industry, which have contributed to the modification of the spatial pattern of industry in each city. However, reforms have both interrupted and accelerated the established trajectory of the development of industrial areas. The changes in industrial landscape and land use can partly be considered as the consequences of the continuing evolution of existing industrial areas (Chapman and Walker, 1988) and partly as the results of processes (e.g. globalization, tertiarization) similar to those in Western Europe. Thus, the factors that brought

them about were not completely new (Beauregard and Haila, 2000). The basic aims of this study are to reveal the spatial impacts of the industrial transformation in the major Hungarian cities and the similarities and differences between the capital city and other major cities.

The study is primarily based upon research carried out in the five regional centres of Hungary at the turn of the millennium. More detailed information on changes in local industry and its spatial structure were obtained from 15 interviews (three in each city) with local authority officials (urban planners), managers of industrial estates and leaders of chambers of commerce and industry. In addition, secondary data were also used. Although they are for 1998, they are useful as indicators of conditions

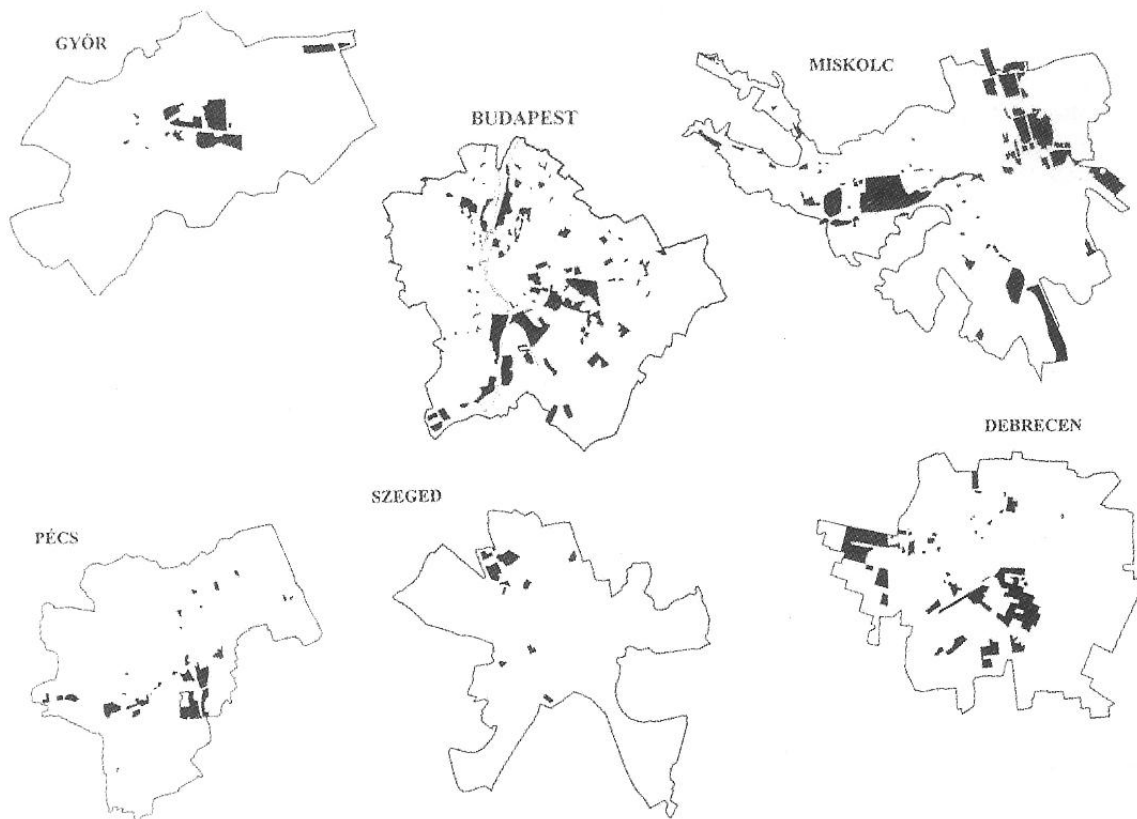


Figure 1 Industrial areas in the major Hungarian cities in the second half of the 1990s
 Source: Urban development plans.

in the early 2000s because, on one hand, subsequent changes have been less spectacular than earlier ones, and on the other hand, the Central Statistical Office has not published detailed industrial data for major cities in its more recent statistical yearbooks. The next section of the paper evaluates the major changes in industrial space while, finally, conclusions are drawn with particular regard to the reasons behind the divergent development of major cities.

Changes in industrial spaces and landscapes

As a result of industrial restructuring, industrial areas in the major Hungarian cities are also in different phases of transformation. The changes which have taken place in these areas during the last decade can be evaluated from several different perspectives. First, let us examine how their spatial

order has changed and affected the urban structure. Basically, the pre-1989 locational distribution of industrial areas has not changed substantially in individual cities. It is primarily because most new firms were established as brownfield developments, and only a few involved greenfield investments. Even in the latter cases, most new industrial areas border on existing industrial zones. This can be best observed in Győr, where the first Hungarian industrial park was established alongside the former industrial area. Moreover, the relocation of industrial firms within a city, or their suburbanization, have been atypical. The reasons for this include: relatively large industrial areas are available (although some of these require rehabilitation), and their locational distribution pattern is suitable for current needs; lack of capital; and neighbouring settlements being unprepared (for example, because of their inadequate infrastructures) to receive industrial establishments. Moreover, some industrial firms (21), in a questionnaire survey in regional centres in 2000,

also reported that their location within a given settlement had remained the same since their foundation, and they did not intend either to relocate their sites or to purchase a new site, distant from the present one (Kiss, 2001). The fact that many older industrial areas were underutilized probably also contributed to the lack of change in the spatial structure of industry. This has been emphasized by the case of Miskolc, where old industrial areas were able to accommodate new enterprises. After rehabilitation, mining areas were also able to provide potential sites for new firms in Pécs. In addition, the urban planners interviewed noted that, in the long run, only small sites close to the city centre or to residential areas, or those where polluting factories are located, were likely to disappear. This involves no more than one or two firms in each city (e.g. a grain mill in Debrecen, a textile plant in Pécs, a plastic factory in Miskolc). In all these cases, it was also anticipated that in the near future the spatial pattern of industry would not change fundamentally in the major cities, except in Budapest.

The other aspect of the analysis of changes in industrial space is how the size of the industrial areas has changed. Over the last decade, there has been little modification of the extent of urban industrial areas, except in Budapest where they have decreased by 40 percent on average in the second half of the 1990s, a process that is still underway (Kiss, 1999). The decline was especially significant in the northern and north-eastern parts of the industrial zone of the capital. The expansion of the city centre in these directions has also contributed to their rapid deindustrialization, and has resulted in the splitting-up of the large contiguous industrial zone into smaller units. Such trends are not observed in the regional centres, partly because these city centres have sufficient room for further expansion of CBD functions while their tertiarization is less advanced than in the case of Budapest. At the end of the 20th century, the share of industrial land in the administrative areas was still considerable in the regional centres. This is closely connected with the fact that greater importance is attached to industry in the local economies other than Budapest, which also has to fulfil various capital-city functions. This explains why the tertiary sector is developing faster and the manufacturing industry is of declining importance in the economy of the

capital, compared to other major Hungarian cities. In this respect, Budapest follows the trajectories of other capital cities (Korec, 1997; Misztal, 1997; Sykora et al., 2000). At the same time, functional change and the expansion of the city centre have taken place much more slowly in the southern–south-eastern region than in the northern–north-eastern part of the capital. In fact, here, the main trend has been the rehabilitation of old industrial areas (Kiss, 1999).

The third aspect of changes in industrial space has been the transformation of industrial landscapes. The pace and scale of changes in each industrial area depend on several factors: for example, the size, location and sectoral pattern of industrial areas, and the size of firms found in the same industrial district. However, the major characteristics of these changes are very similar in many respects. Considerable parts of the industrial areas retain their original industrial functions, mainly in the regional centres, where deindustrialization is less advanced (Figure 2). As a consequence, their industry will continue to be significant in the longer term, and will have to be taken into consideration by planners and others. In such areas a partial or complete renewal of industrial establishments can be observed, related to their modernization and adjustment to new challenges. Old buildings are being restored, reconstructed and/or new additions are being built if necessary. According to the survey, the renewal of old industrial establishments has proceeded much faster in those firms with foreign interest (Kiss, 2001). As these modernization processes usually take place ‘within the factory gates’, they are less spectacular and do not have a significant effect on urban pattern.

Due to the shrinkage of urban manufacturing, derelict and redundant industrial areas have also emerged as new phenomena in East European cities. The ways they are reutilized are very similar to the processes that can be observed in developed cities, and this can be observed primarily in the industrial areas of Budapest. In the regional centres, their reutilization for industrial purposes is much more common than in Budapest, where the reutilization for non-industrial (e.g. residential, recreational, parking) purposes, mostly for commercial and service functions, is general. In the place of former industrial establishments, many new buildings with different functions have been built which have been

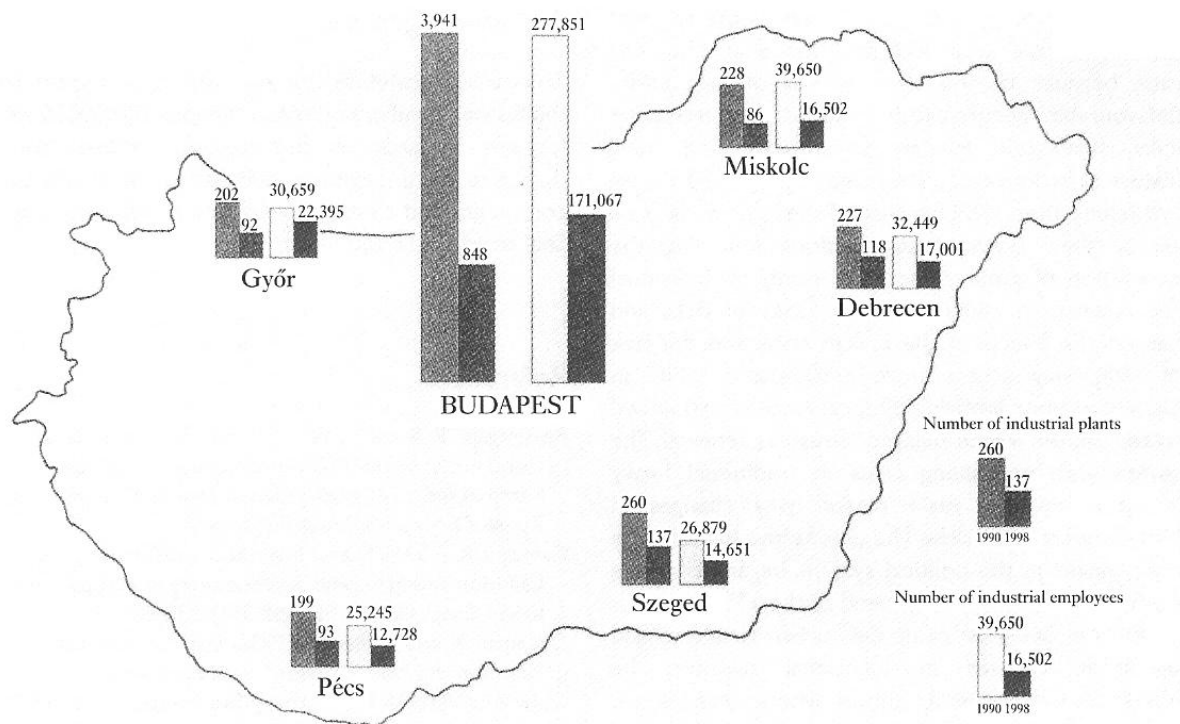


Figure 2 Number of industrial plants and employees in the major Hungarian cities (1990–98)
Sources: *Regional Statistical Yearbook* (1990; 1998); *Statistical Yearbook of Budapest* (1990; 1998).

adjusted to the challenges of a new age. They are very modern, often tall buildings with glass walls. The best example of 'adaptive reuse' (Cohen, 1998) is the former screw factory located in the northern part of Budapest. Its buildings have been renewed and nowadays numerous shops, services and supermarkets can be found on its area. Owing to the functional transformation, the traditionally homogeneous industrial areas have become more heterogeneous, particularly in the capital. It has also had a substantial impact on the urban landscape. Even more so, the image, the atmosphere and the structure of local society have begun to transform.

Conclusions

Regarding the changes in post-socialist industrial space and land use, there are significant variations, especially between Budapest and other major cities. The differences can be explained by the following facts:

- Budapest has a central location in the heart of the country. Its transport, geographical location, the quality of its built environment, its infrastructure and its skilled labour force make it much more attractive than other regional centres.
- The development of industry in Budapest began earlier and proceeded faster. By the beginning of the 20th century it had become the largest industrial centre and still is, although deindustrialization and functional transformation are far more advanced here than in the rest of the country.
- Budapest is the primary destination of foreign direct investment. In 2000, it accounted for 8 percent of all industrial investments with foreign interests in Hungary. In turn, such industrial investments accounted for 32 percent of *all* foreign direct investment in the capital city. Numerous multinational companies have established their headquarters and R&D units in the city.
- Budapest is much more intensively locked into internationalization and globalization as more international programmes, banks, institutions etc. are found there (Enyedi, 1992).

At the same time, industrial changes in the regional centres started later and progressed at a slower rate, because of the slow spread of innovation, unfavourable geographical locations and transport links, small-scale foreign investments, and their historical backgrounds. They also experienced a slow awakening after 1989 because of the loss of many, or all, of their county-seat functions following the devolution of greater local autonomy to individual settlements. In addition, in the cases of Pécs and Szeged, the effects of the Balkan crisis and the lack of motorway access were problematic, while in Debrecen poor lobbying by local leaders also added to the factors which delayed industrial renewal. The severe and long-lasting crisis in traditional heavy industry was the main reason why changes in Miskolc were very slow. The city, as 'the big loser' in the changes in the political system, began 'to awake from the shock' only at the end of the 1990s.

Only in Budapest can a new urban structure and significant changes in functional divisions be observed. Consequently, this is where changes are most advanced in the transformation of the social structure, the local atmosphere (understood as the interaction between the renovated physical environment and social/cultural relationships) and images. The capital city is following the path of developed cities but with a phased delay. However, within a few years, the gap may be closed and it will be integrated into the changing urban network of European cities. At the same time, other major cities are following specific trajectories in which industry will gain greater significance than in the capital city. Of these, Győr has responded most rapidly to the new challenges and is now one of the most dynamic industrial centres in the country. This city has attracted the largest number of firms with foreign interest (around 25 companies) because of its favourable location (proximity to the Western border), skilled labour force with experiences of Austrian (Western) working culture, innovative management and good infrastructure. At present the other regional centres are searching for new positions and functions in the transforming Hungarian urban network. In the long run, industry and cities have to cope with new challenges which can much more radically affect their industrial areas and thus their urban development.

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