

CHAPTER 4. URBAN SPRAWL ON THE DANUBE: THE IMPACTS OF SUBURBANIZATION IN BUDAPEST

Zoltán Kovács and Iván Tosics

h1 Introduction

Since the end of the nineteenth century, Budapest, the capital city of Hungary and its principal political, cultural, and business center, has been continuously influenced by cycles of urban concentration and deconcentration. During the last two decades, however, urban sprawl has become one of the most significant urban phenomena characterizing the development of the Hungarian capital and its region. Undoubtedly, this process is closely linked with the post-socialist transition of the country, including the liberalization of the housing market, the sharp increase in residential mobility, and the rising influence of global capital on urban development (Sailer, 2001). Not surprisingly, the processes of accelerated suburbanization taking place around Budapest in recent years have attracted the attention of a number of urban scholars (Berényi, 1986; Dövényi and Kovács, 2006; Izsák and Probáld, 2003; Kok and Kovács, 1999; Kovács and Dövényi, 1998; Timár and Váradi, 2001; Tosics, 2005b), who have posed a range of critical questions about the contemporary patterns of urban growth. The inquiries into the nature of the suburbanization phenomenon have become even more relevant after the turn of millennium, as suburbanization has spread to other Hungarian cities (Bajmócy and Hegedűs, 2008; Csapó and Németh, 2008; Molnár et al, 2007).

The aim of this chapter is to provide a comprehensive overview of recent processes of urban decentralization in the Budapest region along with an examination of the socio-economic and political conditions that have enabled this phenomenon. We first offer an exploration of the historical background of suburbanization in Budapest, followed by an analysis of the contemporary dynamics of urban decentralization in the region. Then we discuss the conditions of suburbanization, its driving forces, and its most important impacts, concluding the chapter with an assessment of current policies and practices of managing suburban growth in the region.

h1 Suburbanization in Budapest before 1990

Urban sprawl around Budapest has a long and complicated history which can be divided in several distinct phases.

The first signs of suburbanization in Budapest can be traced back to the end of the nineteenth and the beginning of the twentieth centuries. The extension of the streetcar network and the construction of new suburban railway lines during that period enabled the development of residential areas beyond the city boundary (Enyedi and Szirmai, 1992). By 1912, the suburban light railway network (HÉV) had six lines in operation, in addition to the eight streetcar lines connecting Budapest with its surrounding

municipalities. Numerous commuter villages sprung up around the Hungarian capital at that time, which were inhabited mainly by lower-income working-class residents.

The second stage in the development of Budapest's suburbs occurred during the inter-war period when a rapid growth of industrial production and skyrocketing rents in the capital spurred the expansion of suburban communes, some of which became medium sized towns boasting a population of 50 to 60 thousand inhabitants (e.g. Újpest, Kispest, Csepel). The rapid expansion of Budapest's population and its built-up area was reflected in the changes of the region's administrative division. The original ten districts, established with the formation of Budapest in 1872 on the basis of three independent towns, were increased to fourteen in 1930. At that time the authority of the Council of Public Works was extended to 22 surrounding municipalities. Planning regulations set out by this powerful body, which was established in 1870, envisioned the creation of Great Budapest through the annexation of existing suburban settlements to the capital. This goal was ultimately accomplished in 1950 when 23 suburban settlements were incorporated in the territory of Budapest as part of an administrative reform carried out by the communist regime.

The creation of Great Budapest in 1950 marks the beginning of the third period of suburbanization in Budapest. In the following two decades, heavy government investments in industrial development, the consequent rise in the demand for labor, and the collectivization of agricultural land attracted many migrants from rural areas to the capital. A new peripheral agglomeration of satellite settlements began to emerge around Budapest. This growth at the metropolitan edges was aided by the imposition of administrative restrictions on acquiring residency status, a measure introduced during the 1950s with the goal of controlling the influx of people to the capital.¹ As a result, the municipalities surrounding the capital city experienced rapid population increase from the late 1950s onwards. This growth was characterized by the lack of adequate physical and social infrastructure in the emerging peripheral areas. As a consequence, an extensive residential band of development, strictly dependent on the city for jobs and services, arose around Budapest. By 1970, the proportion of commuters among active earners in several of these surrounding settlements surpassed 80 percent.² The expansion of the suburban belt accelerated during the 1970s with the population growth of the agglomeration exceeding that of the city. This was a special, "East-European type of suburbanization" (Ekler et al., 1980), fueled not by the outward flight of residents from the urban center, but by the influx of migrants from the countryside who could not settle down in the city due to a combination of factors. These included the relatively high housing costs in the capital (compared to the rest of the country) and the imposition of administrative restrictions on establishing residence within the city boundaries.

A different and relatively new phenomenon, gaining momentum the early 1970s, was the construction of thousands of weekend houses clustered mostly in the northern and western peripheries of Budapest – areas characterized by attractive hilly landscapes with an abundance of open green spaces. In most cases, these second homes were erected as simple wooden cabins on a small piece of land with very basic facilities (normally without running water or sewage systems). The owners were typically from modest social

backgrounds. Very often these were residents of the high-rise socialist housing estates or the inner-city tenement blocks (Földi, 2006). Gradually, starting from the late 1970s, some of these weekend houses began to get converted into permanent homes, accommodating the first wave of residential out-migration from Budapest (Berényi, 1986). This trend was solidified in the second half of the 1980s, partly as an outcome of a new housing policy, adopted in 1983, that provided greater financial support for the private construction sector, and partly as a result of a rapidly growing income stratification characterizing the last decade of the communist regime.

Nevertheless, in comparison to the scope of suburbanization processes in Western Europe and particularly in the United States, the growth of the suburban belt around Budapest remained limited in a pattern characteristic for other cities in East Central Europe. In 1990, the agglomeration zone numbered 413,000 residents comprising only 17 percent of the population in the functional urban region. A more intensive decentralization of population and businesses towards the periphery of Budapest's metropolitan area was prevented by numerous factors, including the state control over housing and local land markets, the low level of private car ownership, the absence of market-based location choices for businesses, and the weak power of local governments which undermined their ability to attract investments to the periphery. Since the socialist state made minimal investments in communal infrastructure or services in the suburbs, those areas had little attraction for the affluent segments of the population. The suburban housing stock was comprised predominantly of small single family dwellings, mainly self-built by blue-collar commuters to the city (Kok and Kovács, 1999).

h1 Dynamics of suburbanization in the post-socialist period

With 2.5 million inhabitants, Budapest is the largest metropolitan region in East Central Europe. Located in one of Hungary's seven NUTS-2 regions, the metropolitan territory can be divided into discrete urban zones with distinct housing, morphological, and social characteristics (Figure 4.1).

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The oldest and most densely built part of the city, known as Little Budapest, includes an area of 207 sq km encompassing the core of the urban region. This zone is comprised of the historical city centre and the adjoining residential areas characterized by 3 to 4 storey residential buildings constructed primarily during the late nineteenth century. At the fringe of this core, land development is less intensive, featuring areas of low-rise working class housing mixed with industrial estates, warehouses, and transport areas (e.g. railway stations and depots). This inner-urban core is surrounded by an outer ring, which was considered the suburban zone of Budapest prior to 1950. After the annexation of this territory in 1950, the total area of Budapest grew to 525 sq km. This zone became the target of socialist housing construction, mainly in the form of large, high-rise housing estates. Despite its intensive development during this period, this zone still retains its

original rural character dotted with open space and clusters of single family houses. Finally, the zone of agglomeration encompasses the suburban settlements around Budapest which lie in its daily commuting zone and maintain strong ties with the capital. According to the first legal document that specified the official boundaries of Budapest's agglomeration zone (the National Settlement Development Concept approved in 1971), it included 44 independent settlements. In 1997, in recognition of the intensification and expansion of the functional connections between Budapest and its suburban settlements, which took place during the 1980s and 1990s, the Hungarian government extended the boundary of the agglomeration. Today, it encloses 80 settlements, some of which are incorporated towns with robust central functions while others are simply dormitory villages.

In the metropolitan structure outlined above, a clear distinction exists between the inner periphery (the outskirts annexed in 1950) and outer periphery (the zone of agglomeration). For the inner periphery, the post-socialist transformation triggered a number of controversial processes of urban change. These include, on one hand, the physical, social, and economic decline of the socialist housing estates built during the 1970s and 1980s in those areas (Egedy, 2000). Many of the middle and upper-income residents who left these estates moved to the suburbs, thus giving a boost to the process of residential suburbanization and socio-spatial stratification. On the other hand, the inner periphery became a breeding ground for the development of exclusive residential parks, a new segment of the housing market developed mainly by foreign companies as the higher-density equivalent of the American gated communities. The inner periphery was also severely impacted by the breakdown of the socialist industry, which had left behind a wasteland of derelict industrial areas forming a complete rustbelt around the capital. The first successful redevelopment projects in these areas were initiated after the mid-1990s, when the revitalization of numerous brownfield sites began expanding outward along the main transportation axes. In our view, the revitalization of the inner-periphery is part of the general deconcentration tendency of people and economic activities and, thus, it should be treated as internal or "hidden" suburbanization.

h2 Residential suburbanization patterns

Since the beginning of the transition period, the population of the Hungarian capital decreased by over 300 thousand residents – from a little over 2 million in 1990 to nearly 1.7 million in 2007. This sharp population loss is a result of a combination of natural decrease (accounting for two-thirds of the population decline) and an accelerated migration of urban residents to the suburban periphery. While this urban population loss was initially masked by a positive influx of migrants from other parts of the country to the capital, by the mid-1990s it became more pronounced, reaching a net loss of 18 thousand residents per year. This trend is still strong, but the number of immigrants to Budapest has once again increased in recent years, thus reducing the net population decline in the capital. In the agglomeration zone, on the other hand, a slight natural decrease in population has been offset by the massive inflow of people moving away from the urban core. As a consequence, since 1990, the size of the population in the

agglomeration zone grew by 33 percent, reaching three quarters of a million in 2007 (Table 4.1).

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The main targets of suburban migration in the last couple of decades have been predominantly rural communities in the hilly areas north and west of Budapest (Figure 4.2), which offer high quality residential environments in attractive natural settings. The majority of these new developments have been concentrated inside existing suburban settlements (in the form of infill on available plots) or at their fringes (typically on greenfield sites). Here, the construction of detached houses, terrace houses, and occasionally residential parks has flourished, attracting mostly young, middle-class families with children who are relocating from the capital city. The outflow of residents with specific socio-economic characteristics beyond the boundaries of the capital has resulted in significant changes in the social and demographic makeup of Budapest's suburban communities. Census data indicates that between 1990 and 2001 the proportion of people with a college degree living in the agglomeration zone has increased from 3.2 to 12.7 percent.

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The invasion of younger, better educated, and more affluent families into the suburbs triggered a shift in the housing market. While in Budapest the number of inhabited dwellings decreased by almost 50 thousand units between 1990 and 2001, the housing stock of the agglomeration zone expanded by 21 percent. Of the 168 thousand new dwellings built between 1990 and 2008 in Budapest's metropolitan region, 55 percent were located outside the boundaries of the capital city (Figure 4.3). The ratio between the volume of construction built in the two zones changed in favor of suburban development (from 1:1 in the second half of the 1990s to 2:1 in 2005). After 2005, however, housing construction in the suburban zone has rapidly declined, while the volume of construction in the city of Budapest is steady growing. The explanation is twofold. First, a very favorable housing loan system was introduced in Hungary in 2000. The interest subsidy for housing loans was significantly increased, contributing to a boom in residential construction. From 2005 on, the criteria for receiving mortgage financing were tightened and in the subsequent years housing construction in the agglomeration zone dramatically declined. Another factor with significant impact on the dynamics of the metropolitan housing market has been the success of urban rehabilitation programs introduced around the turn of the millennium, which have resulted in a steady growth of newly constructed dwellings inside the city boundaries since 2000. By 2006, more dwellings were constructed in Budapest than in the agglomeration zone. Data for 2007 has confirmed this trend, indicating that Budapest might have passed already the peak of the suburbanization stage, slowly entering the stage of re-urbanization.

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h2 Non-residential suburbanization patterns

The suburbanization of industry and services started somewhat later than residential suburbanization around Budapest. The beginning of the process of non-residential deconcentration could be traced back to the early 1990s, but its speed remained below the rate of residential suburbanization. The main wave of decentralization of service functions and industry to the metropolitan periphery started in the late 1990s. It was fueled primarily by the establishment of new industries and businesses, usually with foreign investment, showing a clear preference for suburban locations. The newly erected shopping centers, business parks, logistic and office complexes were typically developments on green field sites, fueling the rapid expansion of suburban enterprise zones and new economic growth poles beyond the urban edge.

A recent study exploring the genesis of economic growth poles has identified three such formations around Budapest, all of which have emerged in the last fifteen years (Dövényi and Kovács, 2006). These include: 1) Gödöllő town and its surroundings along the M3 motorway; 2) Szigetszentmiklós-Dunaharaszti-Soroksár along the M0 motorway; and 3) Budaörs-Törökbálint at the M1-M7-M0 intersection. These three poles differ not only by geographical location but in their dynamics, genesis, and structure as well (Figure 4.4).

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The economic pole around Gödöllő emerged as a result of the restructuring of an existing commercial area. With a population of 30,000 residents, Gödöllő was a rather modest urban center before 1990. Its agricultural university (now Szent-István-University) was the town's only large urban facility of any regional significance during the socialist period. Industrial activities in Gödöllő at that time included some small and medium-size enterprises which had little regional importance as well. After 1990, however, the former sleepy socialist satellite town became a hotspot for industrial development accommodating many small high-tech companies, along with some large-scale enterprises such as Sony, Caterpillar, and the Lear Corporation. A biotechnological research centre was created in cooperation with the Szent-István-University with the long-term objective of forming a "Technopolis" intended to tap the synergies created between knowledge-oriented industries and private and academic research concentrated in the area. In addition, the significance of tourism around Gödöllő is also increasing, especially in connection with the Formula-1 racetrack Hungaroring in Mogyoród, the royal palace in Gödöllő, and the thermal spa in nearby Veresegyház (Michalkó, 2001). The large shopping centers built in the adjoining settlement Fót have contributed also to the economic success of this suburban growth node.

During the last decade, the Szigetszentmiklós-Dunaharaszti-Soroksár pole, which emerged along the M0 beltway in the south of the metropolitan area, has evolved into a major development axis. Massive investments in recent years and several major development projects have turned this part of the southern agglomeration into the biggest concentration of logistics in Eastern Central Europe. In addition to smaller logistic clusters, the Budapest Intermodal Logistic Centre occupying 100 hectares on the southeastern edge of Budapest started operations in November 2003. Today, this zone is an important commercial transport hub between Western Asia, the Balkans, and Western Europe, highlighting the ever increasing importance of logistics in the process of suburbanization (Dövényi and Kovács 2006).

During the 1990s, the suburbs of Budaörs and Törökbálint changed very quickly their image, transforming the area from a cluster of dormitory communities into the most dynamic economic growth pole of the Budapest metropolitan region. Prior to 1990, this area suffered from severe jobs-housing imbalances, with Törökbálint being an exclusively residential community. Today, Budaörs is one of the biggest commuter targets in the metropolis and both communities are among the most important centers of employment in the Budapest region. The highly dynamic trajectory of Budaörs-Törökbálint's development as an economic growth pole shows clear similarities to the evolution of edge cities in North America (Burdack et al., 2004). The transition to a market economy has allowed the Budaörs-Törökbálint region to take advantage of its location as Budapest's "gateway to the West." The completion of the M0 motorway in the early 1990s, connecting the westwards motorways leading to Vienna (M1) and Lake Balaton (M7), was a crucial factor securing this reputation. The newly created M0/M1/M7 interchange solidified the area's top ranking as the most accessible regional location, thus enticing the interests of numerous investors. As a result, the area underwent fundamental changes in terms of its land use composition. Modern industrial, office, and household-oriented services targeting the metropolitan market played an important part in this process. In recent years, a number of logistics centers have also emerged in the area. The dynamic development increased the number of jobs in the Budaörs-Törökbálint area by 6,000, reaching a total of 20,000 employees by 2001. Due to its impressive economic growth, Budaörs has been ranked lately among the most prosperous Hungarian cities at the beginning of the twenty-first century (Izsák and Probáld, 2003).

A notable development during the last couple of years is the emergence of a fourth economic pole in the southeastern edge of Budapest, next to the Ferihegy Airport. This cluster is emerging as a result of the agglomeration of wholesale, logistics, and other airport-oriented business activities. The rapidly growing passenger turnover of the Budapest's airport reaching 8,4 million passengers in 2008, the forthcoming enlargement of its capacity, and the planned improvements in its regional connections through the extension of the M0 beltway point with certainty to a continuing growth for this area in the foreseeable future.

As a consequence of the accelerated residential suburbanization, the population of the municipalities surrounding the city of Budapest to the north and west increased quite dramatically after 1990. In contrast, the number of inhabitants in the eastern and southern parts of the metropolitan agglomeration, characterized by less scenic natural conditions, has remained stagnant. During the 1960s and 1970s, these areas attracted the majority of the low-skilled labor force migrating from rural areas to the capital. As a consequence of these migration patterns from the 1960s, 1970s, and subsequently from the late 1980s and 1990s, a distinct pattern of social polarization has taken shape in the outer periphery of Budapest. The northern and northwestern regions have attracted predominantly upper-middle class residents, whereas the southern and eastern parts of the metropolitan area are populated primarily by lower-income residents.

Residential suburbanization and the decentralization of business activities have led to a rearrangement of the commuting flows within the region. The majority of the commuters' flows are still concentrated on Budapest with its highly attractive labor-market. In 2001, Budapest still had a positive balance in the number of commuters traveling to work across the city boundaries, with the number of employees living in the suburbs and working in Budapest exceeding the number of outbound commuters by over 110 thousand. Unfortunately, there is no available data to allow comparison with earlier periods. Generally speaking, there is overwhelming evidence that, since 1990, the economic interaction between the city and its surrounding areas has become much more intensified, leading to an increasing complexity of the spatial linkages between the metropolitan core and its suburban periphery. In this process, the trend points to a continuously increasing role of the periphery as a main domain of new activities and a declining role of the urban core.

h1 Conditions, driving forces, and impacts of suburbanization

h2 Conditions for suburbanization

The analysis of post-socialist suburbanization needs to be grounded in an understanding of the basic political and economic factors that shaped urban systems in the socialist era. Contrary to the view of some geographers, according to which socialist city development presents only a deferred replication of the general model of urbanization in the developed countries, Iván Szelényi has argued that “societies with different socio-economic orders will produce qualitatively different urban conditions” (Szelényi, 1996: 290). In line with this argument, the analysis of the specifics of the socialist housing system (Hegedüs and Tosics, 1992; 1996) has served as a basis for the development of a “socialist model of urban development” (Tosics, 2005a: 48).

One of the most striking and visible differences between the western and the eastern models of urban development is revealed in the characteristics of Eastern-European suburbanization – a clear consequence of the strong control exercised by the socialist state over all aspects of supply and demand in urban development matters. During the socialist era, public housing within cities was not only limited in quantity but also in its

allocation rules. This posed serious administrative restrictions on the acquisition of such dwellings, practically excluding this option for would-be urban residents. Since most aspects of private housing development were also tightly controlled by the state, especially land supply and building materials, privately built housing in cities carried a high premium price, making this stock inaccessible for families coming from the rural provinces. Thus, no other viable solution remained for the migrants to urban areas but to settle down in the vicinity of cities where the administrative control was less harsh and where possibilities existed to overcome the income/price problems with self-help housing.

The collapse of the socialist political and economic regime inevitably led to the collapse of the socialist housing and urban development systems. Although Hungary initiated economic reforms a few years earlier than most other socialist countries, the critical changes came as a consequence of the political collapse. By the end of 1990, all legal and administrative aspects of state control over demand and supply of housing, land, and infrastructure have changed, leading to radically new conditions for urban development. These conditions included:

- The rising affluence of certain segments of the population led to a substantial increase in the demand for new housing and built space. As in most post-socialist states, income inequalities in Hungary increased sharply during the first half of the 1990s. Since then, they have remained relatively stable, slightly below the OECD average.³
- The decentralization of public administration, with the practical elimination of the previously very strong state and county control over local decision-making, gave the opportunity to all settlements, regardless of their size, to make their own decisions about land policy within their administrative areas.
- The weakened control of Budapest municipality over the local district governments, which acquired the right to elect directly their mayors and local assemblies, eroded the ability of the municipal government to coordinate urban development on a citywide scale.
- The transfer of state-owned real estate assets, including housing and land, into the ownership of local governments gave them additional power to control new development.

The radical changes in the basic legal regulations and institutional systems were paralleled by the introduction of new central government policies, with the main intent to speed up the process of transition from a socialist state-controlled to a capitalist free-market society. These policies were carried out through the following acts:

- The 1993 Housing Law made privatization of public housing compulsory with the introduction of the Right to Buy. As a consequence, the share of public housing in Budapest decreased from 50 percent to a mere 6 percent of the housing stock, with the sale of close to 350 thousand flats to sitting tenants.
- In order to find “real owners,” state properties such as factories, state-owned companies, and urban land were sold in the form of cash-privatization to those who

offered the largest financial return. The revenues were split between the central and the local governments.

- Through the process of privatization, the agricultural land around Budapest, as well as elsewhere in the country, was sold to private owners compensated for the forceful establishment of agricultural cooperatives in the 1950s and 1960s. This process was a key factor for the massive conversion of land from agricultural to residential uses (Schuchmann, 2001: 21).
- The former socialist territorial development policies of the national government were reversed during the 1990s, giving priority to the allocation of financial assistance for infrastructure development in previously neglected regions and to smaller settlements in general.
- Revisions in national taxation policies in the beginning of the 1990s promoted fiscal decentralization through the introduction of local taxation, leaving substantial portions of tax revenues at the local level.

Although most of the above mentioned political, institutional, and administrative changes happened at the beginning of the 1990s, it would be a mistake to assume that urban development processes changed with similar speed. Detailed analyzes of the last two decades reveal that the transition from socialism to capitalism can be split into three distinct periods (Tosics, 2006: 133), which are also substantially different with regard to the conditions for (sub)urbanization. These three phases of transition can be summarized as:

- *A period of vacuum* spanning the first half of the 1990s, which was marked by controversial regulations and unsettled political and socio-economic processes.
- *A period of adaptation* covering the second half of the 1990s, which was marked by the advancement of market-dominated ideas about local development accompanied by a re-active public policy approach.
- *A period of adjustment* starting at the beginning of the 2000s and characterized by strengthening and increased coordination between policy areas and the promotion of pro-active public policy approaches.

This periodization of the transition towards a capitalist market-based democracy can be considered a general framework for sectoral analysis. There are, of course, some differences in timing across the various policy sectors. In some of them, urban development being a notable example, the period of adjustment arrived later, especially in the case of the Budapest metropolitan area.

h2 The driving forces of suburbanization

h3 Residential suburbanization

While the individual decisions about residential location are always a matter of specific circumstances, the general changes in the patterns of urban-suburban mobility are structurally determined. Since the middle of the 1980s, there were three pivotal points in

residential mobility patterns in the Budapest region and these shifts can be linked to major structural changes taking place in the Hungarian society at the time (Table 4.2).

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Low intensity suburbanization (mid-1980s to mid-1990s). In Hungary the reforms towards a market-based economy preceded the political reforms towards a pluralist democratic society (in most other Eastern European countries these two processes were closely linked). The first steps of the economic reform, undertaken during the second half of the 1980s, allowed the establishment of private companies, initiated the first small wave of privatization of housing, and gave local governments more freedom in decision making pertaining to development matters. These initiatives paved the way for the process of suburbanization for a growing (although still limited) number of households who rented or sold their city dwellings,⁴ thus accumulating the financial means to move out to the city periphery where cheaper plots of land were available at the time. These “pioneers” of suburbanization could strike lucrative deals, but they had to rely entirely on their own initiative and resources through all steps of the process – from selling their flat, to finding and buying the plot, to building the new house – as no public or private institutions existed to support their endeavors.

Strong suburbanization (mid-1990s to mid-2000). The dramatic socio-economic and political changes instituted during the first half of the 1990s coupled with the loose regulatory environment of the early transition years provided excellent conditions for the growth of both the demand and supply side of suburbanization. Rising personal incomes, along with the additional revenues derived from housing privatization (including the capitalization of the market value of public housing) allowed a growing share of middle-class families to act on their wishes and invest into new owner-occupied single-family housing. The increased demand for suburban housing was matched by an increased supply of suburban building opportunities. In addition, a number of important public policies, enacted during the early 1990s, provided a hefty push propelling the process of suburbanization forward. These included the decentralization of decision making increasing the autonomy of local governments, the state infrastructure investment policies favoring previously neglected smaller settlements, the new taxation policies allotting 100 percent (soon reduced to 50 percent and subsequently to even lower share) of the collected personal income tax revenues to local governments. This regulatory environment created incentives for suburban municipalities to adopt policies aimed at attracting middle and higher income households. Throughout the 1990s, intensive infrastructure development allowed many settlements around Budapest to establish an adequate level of communal services. In addition, in order to entice new affluent residents, many of these settlements rezoned vast quantities of agricultural land for residential uses, a right granted to local governments in 1990.⁵ Since residential development within Budapest during the 1990s was limited to small-scale renovation and reconstruction activities, housing supply within the city was quite limited and expensive. The best opportunities, in terms of housing quality and costs, were offered in the suburban settlements surrounding the city, nudging many well-to-do households to

relocate to those areas. A less numerous but substantial segment of households moving out of the city during this period was comprised of those lower-income families who became unable to bear the costs of housing and services in the city, opting to relocate to cheaper suburban communities where the costs of living were more affordable.

Intensive population exchange (second half of the 2000s). Around the end of the 1990s, the strategy of some suburban municipalities to entice new residential development changed as a consequence of the increasing demand placed on these governments to provide public services to a rapidly growing population. This increased burden was made even heavier by the reduction of revenue flowing into local government coffers as a result of the restructuring of national taxation policies.⁶ At the same time, new opportunities to acquire business turnover tax revenues became available. Within a short period of time, the interest of suburban local governments shifted from supporting housing growth to attracting non-residential development investments. Thus, by the second part of the 2000s, Budapest took over the lead in new residential construction, with the majority of the units built within the city boundaries, partly as garden city developments, partly as infill housing (the latter with relatively small flats, accessible with loans also for first time buyers).

The changes in the dynamics of suburbanization are in strong relation with the waves in financing of residential development. In the 1990s residential developments were based mainly on the savings of the population and on revenues acquired from the sale of privatized housing. In the first half of the 2000s bank lending became dominant which has further expanded in the 2005-2008 years with FX (foreign currency denominated) loans, offered in almost unlimited amounts by banks. In these years suburban settlements and developers started even totally unrealistic schemes in forms of large suburban estates in far away settlements.

The years of almost unlimited financial opportunities in the 2000s lead to the increase of territorial inequalities within the country which continued for a while even in the years of sudden collapse of the real estate market in 2008. In the 1990s the Budapest metropolitan region, i.e. the capital and the suburban area concentrated 30% of all new housing construction in Hungary (slightly higher than its 25% share in population). In the 2000s the concentration of new real estate development on the Budapest metropolitan region grew and reached by 2009-2010 48-50% (the source of information is a presentation of Mónika Váradi in April 2012, referring to an unpublished research of the Centre of Regional Research, Hungarian Academy of Sciences).

The financial crisis brought a sudden stop to the blindly optimistic development ideas, leaving behind a huge number of unfinished real estate projects and the very serious problem of families unable to repay the suddenly increased repayment of their FX loans (as a consequence of dramatic change in the exchange rate between Swiss Franc and Hungarian Forint). The share of the problematic loans is the smallest in Budapest while one of the highest in Pest county – thus the financial crisis has hit the suburban areas much more than the city itself. Also some of the suburban settlements got into the situation of accumulated debts with no hope to be able to repay.

Sporadic information on the change of real estate market tendencies show continuing demand for the upper-class suburban houses while dramatic decline for the average priced ones. Social suburbanization to the furthest away settlements might increase – thus inequalities grow.

h3 Non-residential suburbanization

The period of intensive socialist industrialization spanning the 1960s and 1970s concentrated the majority of economic investments within Budapest's administrative boundaries. Special restrictions were imposed prohibiting the location of any industrial plants and large companies within a distance of 50-km from the capital. The economic crisis from the 1980s and early 1990s shrunk employment in the region, particularly in the industrial sector, which lost two thirds of its labor force within a decade (Barta, 1998). While the economic crisis in the Budapest metropolitan area was as severe as in the rest of the country, its economic recovery was significantly quicker due to the accelerated restructuring of the economy in the region in the early 1990s. The relatively quick privatization of state properties, the restructuring and consolidation of the banking sector, coupled with the excellent geographic location of Budapest and the political stability of the country made the region the most preferred place for foreign direct investments in East Central Europe in this period.

Economic recovery was quick not only in Budapest but also in the surrounding functional urban region covering roughly the area of the agglomeration belt. However, in the first years of the transition period, there was a clear distinction between the types of new investments in the two zones. While in Budapest the majority of foreign investments were directed into the service sector, in Pest County, where the share of foreign investments was also significantly smaller, manufacturing remained the primary target.

This picture changed substantially during the following period of adaptation and especially during the adjustment period. After the process of privatization of state properties was completed, the interest of foreign investors turned towards new investment opportunities. In this regard, the settlements in the agglomeration belt could offer greenfield sites which were much easier to develop than the gray and brownfield options available in Budapest. Not surprisingly, the rustbelt area in the transitional zone of the city did not attract much investor interest for many years, while new industrial parks began to pop up around Budapest one after the other. Many of the suburban settlements adjusted the focus of their development strategies away from residential development, concentrating their efforts on assembling large-scale greenfield sites earmarked for non-residential investments. The lack of effective policies coordinating regional development patterns resulted in channeling the majority of investments to the agglomeration belt, while Budapest emerged as the clear loser in this competition, hindered by the weight of the problems of its numerous brownfield sites (Barta, 2004). Foreign investors learned quickly how to “play the game” of pursuing easy development opportunities and in this, once again, Budapest proved to be the weaker competitor. Its two-tier administrative system of municipal and district governments translated into a more difficult investment

environment compared to the case of doing business with suburban governments, where development permits were a lot easier to obtain. This situation undermined seriously the efforts of Budapest's municipal government to impose stricter environmental standards for new construction since these initiatives were seen as threatening to push prospective investors further away.

Recent development initiatives in the agglomeration zone have been spearheaded by the construction of the M0 beltway in the southern, eastern, and northern parts of the metropolitan area. Here, specialized large international investors have developed a string of logistics and industrial parks with direct connection to the M0, which allows fast access to the airport and all other motorways connecting the region to the neighboring cities and countries. Overall, the general patterns of non-residential development in the last couple of decades point to a trend of increasing functional specialization between the different areas of the Budapest's metropolitan agglomeration. Innovative, large value-added sectors depending on highly qualified workforce are still concentrated in Budapest, the large-scale logistics centers are clustered along the M0 and the other motorways, while less innovative and lower profitability ventures have located in the outer edges of the agglomeration where land prices are the lowest. While some authors have pointed out the success of brownfield redevelopment in Budapest in recent years (e.g. Kiss, 2007), in our estimate, the regeneration of such sites is occurring randomly and lagging behind the necessary level as a direct result of the existing highly decentralized planning system.

Notwithstanding the intensive suburbanization of residential and industrial uses during the post-socialist years, the most striking examples of changes in urban patterns and form during the transition period can be found in the retail sector. The infamous socialist shortage economy did not create many retail establishments and even the existing ones were far below international standards. The *vacuum period* brought an end to the shortage of goods without being able to solve the problem of inadequate shopping space. The real breakthrough in the retail real estate market came in the mid-1990s when the first shopping centers and hypermarkets made their appearance on the scene, reorganizing profoundly the operation of this sector. The boom in retail development continued throughout the second half of the 1990s (the period of adaptation) and subsided after 2000 during the following period of adjustment (Table 4.3).

Table 4.3 here

One of the most interesting facts, evident from the data presented in Table 4.3, is that the share of new retail investments in the agglomeration zone remained stable at about one quarter of all investments of this type in the metropolitan area as a whole. This finding challenges the popular assumption based on the experience of East German cities and Prague that the construction of out-of-town shopping centers has been a driving force in post-socialist suburbanization. Another surprising trend is the steadily increasing share of retail investments in the central areas of the city, capturing about two thirds of all retail investments in the 2001-2005 period. This fact is undoubtedly linked with the increasing share of retail investments targeting brownfield areas in Budapest's old industrial belt.

In spite of this positive trend of directing retail investment towards the regeneration of dilapidated urban areas with good access to public transportation, the proliferation of large shopping centers and hypermarkets in the suburban periphery during the last two decades has contributed to the collapse of the traditional forms of commerce and the abandonment of many shopping streets in the inner parts of the city.

Similarly to the residential real-estate, the easier access to credits speeded up also office and commercial developments around Budapest in the 2000s. The 2008 sudden collapse of financing has left behind huge unfinished developments in many of the suburban settlements.

h2 Environmental, spatial, and social impacts of urban decentralization

Until the establishment of the automobile as a dominant form of transportation in the 1990s, the axes of Budapest's expansion were determined by the main transportation arteries, the public transport system, and especially the fixed track lines. The sharp increase in car use during the last decade, if continued at present rates, is expected to change the share of travel modes within the city of Budapest from 50:50 (public vs. private) in 1990 to 28:72 by year 2020 (Főmterv, 2008; MRI, 2008). The road system of Budapest and the agglomeration is currently operating on maximum capacity and any further increases in car traffic would have dramatic environmental consequences, as well as lead to significant economic losses due to increases in congestion.

The anticipated deterioration of the environmental conditions due to increases in car traffic is well illustrated in the Environment Program of Budapest (Budapest, 2007). Compared to the EU's air-quality standards setting the upper limit of days with high levels of dust-concentration at 35, the number of such days in Budapest consistently exceeds 150 per year. This situation can be mitigated only by a drastic reduction in car traffic within the city. According to the calculations of the Clean Air Group (Lukács and Beliczay, 2001: 35), car use, which accounted for one third of all trips in Budapest at the turn of the millennium, is responsible for 84 percent of the total internal travel costs, 90 percent of the air pollution, 97 percent of traffic accidents, and 98 percent of public space occupation.

The increasing demand for building plots in suburban areas has led to a significant decrease in green open space and agricultural lands in the metropolitan region. Suburban expansion has resulted in a growing pressure on municipal governments for securing public investments in extensive infrastructure development projects including both physical (roads, water and sewage lines, etc.) and social (schools, daycare centers, police, etc.) infrastructure. In this respect, the contradiction between the newly created demand in the metropolitan periphery and the increasingly under-used capacities of social service within the city is particularly striking.

The popular belief that suburbanization leads to greater socio-spatial segregation seems to be confirmed by the articulation of a distinct pattern of rich and poor areas within

Budapest's metropolitan fabric. Up till now, however, and with the exception of some small-scale case studies, there is no reliable and thorough empirical analysis conducted on the subject.

h1 Management of suburban growth

The problems created by the current administrative fragmentation have undermined significantly any growth management efforts in the region of Budapest. The two-tiered system of government in the capital city (with weak municipal powers and fairly autonomous city districts) does not allow for efficient citywide coordination of development and investment decisions. As a result of the decentralization of political and administrative power from central to local governments in the beginning of the transition period, the City of Budapest has even less planning authority beyond its administrative boundaries. The powers of the Pest County government to exert efficient development control over the settlements within its territory are even more limited compared to the options available to the capital's municipal government for coordinating development within its city districts.

Taking advantage of the large degree of independence granted to local governments by the Local Government Act of 1990, all suburban jurisdictions in the capital region have developed public policies centered exclusively on their specific (fiscal) needs. The strategies pursued by the 82 settlements within the agglomeration fall in one of two categories – those aimed at attracting either high-income population or profitable economic investments. These strategies change from time-to-time to the extent that they need to adjust to changes in the taxation regulations.

While suburban governments actively enticed new businesses and residents, the City of Budapest, on the other hand, did not have a clear strategy about how to stop the loss of population and economic assets for a long time.⁷ The urban development policies adopted by the municipality of Budapest still do not consider any regulatory measures influencing the locational decisions made by households and investors. Even the sectoral policies of the city remain, by and large, limited to its borders, with the exception of some public transport and infrastructure cooperation initiatives.

A number of new ideas have been promoted by experts pointing to successful examples of growth management in the international arena, highlighting the applicability of certain mechanisms and tools in the context of Budapest. It has been suggested that the city and its district governments should agree on accepting the Budapest Strategic Development Concept, adopted in 2003, as a starting point in negotiating the allocation of development rights and environmental obligations among the city's constituent districts (Tosics, 2001: 73). Similarly, such agreements among the settlements within the agglomeration should be reached based on the concepts laid out in the Spatial Plan of the Budapest Agglomeration. The adoption of these ideas advanced by experts, however, is far from reality as it would require solid political and legal agreements, an accomplishment that might not be possible without the (re)establishment of a middle-tier government

positioned above the level of the independent local municipalities. So far, the achievement of such growth management agreements seem an unrealistic goal even for the territory of Budapest, where the municipality exercises little control over the decisions made by its district governments.

Regulating the present competition among suburban municipalities pursuing any opportunity to increase their tax revenues is a critical step needed to strengthen the effectiveness of development controls and environmental regulations. The lack of political agreement among local governments within the region, however, makes the prospects of equitable redistribution of financial means throughout the metropolitan area of Budapest an impossible task. Regional tax sharing, which has been used as a basis for creating agglomeration associations in France and other countries in Europe, is not ranked high on the political agenda in Hungary. For the time being, the provisions of some sectoral plans offer the only opportunities for territorial cooperation.⁸

On the regional level, only broad strategic planning documents are prepared as this tier of government is granted very weak institutional powers. Neither the Development Council of the Central Hungarian Region nor that of the Budapest Agglomeration can exert strong influence over investment and development decisions made by local governments. In this regard, the adoption of the Budapest Agglomeration Spatial Plan (BASP) in 2005 is a first step in the right direction. Unfortunately, as pointed out earlier, the BASP has no real impact on suburban development as suburbs had already rezoned large tracts of land before the adoption of the plan, thus preempting the ability of the plan to contain future development. To some degree, cooperation among the settlements is fostered by the process of allocating EU Structural Funds, in which the Development Council of the Central Hungarian Region has an advisory role. While the effect of EU funds has not been evaluated yet in terms of the impact on spatial development patterns, it is clear that the construction of the M0 motorway around Budapest (one of the main projects funded with EU assistance) has given large impetus to the forces of suburbanization, particularly with regard to the decentralization of businesses.

In the context of globalization and the evolution of today's Europe, a close cooperation between the various levels of government is a critical prerequisite for addressing urban problems and for capitalizing on the existing potential of metropolitan regions (Homan et al., 2007). Yet, several key factors shaping the regulatory environment leave us with little hope that an integrated vision for the development of the Budapest metropolitan region could be achieved in the foreseeable future. These include the following considerations:

- The EU Structural Funds regulations and the methodology of defining NUTS2 regions threaten the territorial coherence of the Central Hungarian Region which contains currently both Budapest and its agglomeration belt. The procedure for allocating EU funding linked to GDP per capita in a given territory has nudged Pest County to pursue the prospects of becoming a separate region, due to the differences in average household income between Budapest and its agglomeration zone.

- The planned administrative reform aimed at the beginning of the 2000s to turn regional governments into directly elected entities with stronger powers did not get the required 2/3 of votes in the Parliament.
- The Budapest Agglomeration Development Council, which could form the core of a reformed institutional system on the level of the functional urban region, could not gain any real power over the strong and independent local governments.

The regulatory environment for cooperation among public actors on the urban development scene, which was created in Hungary after the fall of the Communist regime, could be characterized as rather weak. This situation has only slowly begun to change during the third stage of the post-socialist transformation (the period of adjustment) with the development of the first proactive public policies such as the introduction of public support to urban renewal, the provision of social housing subsidies, and the launch of several planning control initiatives in the Budapest agglomeration area. A major initiative to curb suburban sprawl was introduced in 2005 when the Hungarian Parliament passed the Act on Spatial Planning in the Agglomeration of Budapest. With the adoption of this spatial regulatory plan, the settlements around Budapest have lost their exclusive planning rights with regard to their territory including the right to rezone land. This decision is aimed to mark a clear break in the development of the agglomeration belt around Budapest, as the approval of further land use decisions requires broad consultations, which should ensure that the interest of the whole region are represented. Unfortunately, the seven years of heated negotiations preceding the passing of this law allowed enough time for the settlements within the agglomeration to rezone most of their green and agricultural land to urban uses. It has been estimated that the amount of these territories can accommodate 40 years of intensive growth (experts quoted in Szemző and Tosics, 2005). The presence of this land available for development seriously undermines the success of future plans aimed at promoting compact development in the Budapest agglomeration.

According to new data acquired from Péter Schuchmann (presentation in a conference in April 2012) almost 7 thousand hectare has been rezoned in the agglomerational belt into residential land (10% of the total residential area) on which no development has been started at all. The land reserve for economic development is even larger: 7,5 thousand hectares (one third of the total area which can be used for economic development!) with no hope for any development in the near future.

After the 2010 national elections the winning party acquired very strong political power, reaching 2/3 of the seats in the Parliament. This opened the possibility to change all pieces of the legal and institutional establishment. First the 2005 law has been modified, as it did not prove to be successful. The modified law (having taken force in 2011) further reduces the freedom of settlements to rezone their area to development functions. One of the novelties of the new regulation is the possibility of “exchange of territories”: territories which were rezoned into development areas but lack any real development chances, can now be “back-zoned” to agricultural land, while the settlement get the right to re-zone other parts of its territory to development land.

Since 2010 important changes happened also in the institutional structure. The new government has dissolved the regional development councils, as well as the Budapest Agglomeration Development Council. This means a radical change compared to the previous ideas which aimed at the strengthening of the regional level and creating efficient administrative structure on the level of the functional urban area,. Besides the modification of the institutional structures for development, also the reshuffling of the territorial administrative structure is under discussion in the Parliament, with the creation of new micro-regions, which will get functions in running some institutions, but not in planning.

Under these circumstances, what remains the only force promising realistic advances towards a coordinated approach to regional growth management is defined by the emerging bottom-up endeavor to consolidate the efforts of the various individual stakeholders participating in the planning and development processes. In the second half of the 2000s the preparation of an area-wide strategic plan and the development of integrated public transport program were the first promising steps in this direction. However, as there are no regulations, institutions or incentives introduced for territorial cooperation by the new political power, there is no hope that the dissolved regional and agglomerational institutions (which were not efficient) will be replaced in the short run by bottom up cooperation structures. The new law allows for the voluntary cooperation between the municipalities of Budapest and Pest County but there was no concrete step done into this direction (except for the organization of a conference) so far.

h1 Conclusions

Our analysis reveals that suburban growth has been one of the key factors shaping the development of Budapest's urban region during the last two decades, but the origins of urban decentralization processes could be traced back in history for at least a century. The intensity of suburbanization significantly increased after 1990 due to the liberalization of the property market, the decentralization of the planning system, the infusion of global capital investments, and the change in preferences of residents and companies favoring suburban locations. The advance of urban sprawl over the last two decades has been marked by specific features both in space and time. The decade of the 1990s could be considered the peak of residential suburbanization as the city lost a significant portion of its population and the prospects of its long-term sustainability was placed under serious threat. The main thrust of residential suburbanisation affected mainly settlements located in the more environmentally attractive areas to the north and west of Budapest. Since the beginning of the twenty-first century, the intensity of residential suburbanization has decreased gradually, giving way to an accelerated de-concentration of retail and industrial activities. These functions have been attracted mostly to the major transport corridors and hubs in the metropolitan periphery.

As an outcome of the continuous and intensifying suburbanization of the Hungarian capital metropolis, the spatial pattern of population and economic activities within the Budapest urban region has significantly changed during the last two decades. The

emergence of new economic poles and sprawling dormitory settlements, the disappearance of farmland and natural areas, the increasing demand for personal mobility and the subsequent increase in traffic congestion are the logical products of these processes. By the middle of the 2000s, when the negative effects of urban sprawl became evident to larger segments of the public, the state legislative body felt political pressure to adopt a new Act on Spatial Planning in the Agglomeration of Budapest. The real impact of this law on long-term development is marginal as the settlements had enough time to create their territorial reserves for development for decades in advance. Even so, it is notable that Hungary was the first among the former socialist countries to respond to the challenges caused by urban sprawl, hopefully setting a precedent to be followed by other countries in Eastern Europe.

At the end of the 2000s the financial and economic crisis has significantly slowed down the process of suburbanization. Under the new circumstances the large territorial reserves for future development, created by the suburban municipalities before the agglomerational legislation was enforced, are even more irrational than before. The need for joint territorial planning, taking the economic realities into account, is larger than ever.

After 2010 the new political power made significant changes in all aspects of territorial administration and the regulation of planning. However, the weakness of regional and national planning and governance structures remained (even some of the earlier institutions have been dissolved) vis-à-vis the power of municipalities over local development regulation. The institutional and administrative structure in the region of Budapest became even more fragmented. This gives little hope that stronger growth-management strategies could be introduced any time soon. In the light of the recent global economic crisis, it is more likely that economic factors, such as the rising cost of energy, will have a stronger potential to turn development towards a more sustainable model than attempts to improve governance and territorial cooperation.

h1 References

Bajmócy, P., and Hegedűs, G., 2008, Transformation of the settlement system in post-socialist Hungary, in: Kertész, Á., and Kovács, Z., (eds.) *Dimensions and trends in Hungarian geography, Studies in Geography in Hungary*, 33, Budapest, Geographical Research Institute, Hungarian Academy of Sciences, pp. 135-148.

Barta, G., 1998, Industrial restructuring or deindustrialization? in G. Enyedi, ed., *Social Change and Urban Restructuring in Central Europe*, Budapest, Akadémiai, pp.189-208

Barta, G., 2004, *A budapesti barnaövezet megújulási esélyei*, Budapest, MTA Társadalomkutató Központ.

Berényi, I., 1986, Conflicts in land-use in suburbia: the example of Budapest. *Erkundliches Wissen* 76, Stuttgart, Steiner Verlag. pp. 126-133.

Budapest, 2007: Budapest Főváros Környezeti Programja (Environmental Program of Budapest) Officially passed by the 29 November 2007 resolution of the Assembly of Budapest Municipality

Burdack, J., Dövényi, Z., and Kovács, Z., 2004, Am Rand von Budapest – Die Metropolitane Peripherie zwischen nachholender Entwicklung und eigenem Weg. *Petermanns Geographische Mitteilungen* 148(3): 30-39.

Central Statistical Office of Hungary, Statistical Yearbook of Budapest, 1990-2007

Csapó, T. and Németh, S., 2008, The impact of the establishment of market economy on the morphology of the Hungarian cities and towns. In: *Geographical studies on the University of West Hungary*. University of West Hungary, Faculty of Sciences, Szombathely. pp. 131-141.

Dövényi, Z. and Kovács, Z., 2006, Budapest: Post-socialist metropolitan periphery between 'catching up' and individual development path, *European Spatial Research and policy* 13(2): 23-41.

Egedy, T., 2000, The situation of high-rise housing estates in Hungary, in: Kovács, Z. (ed), *Hungary towards the 21st Century: The Human Geography of Transition*, Budapest, Studies in Geography in Hungary 31, Geographical Research Institute, Hungarian Academy of Sciences, Budapest. pp. 169-185.

Ekler, D., Hegedüs, J., and Tosics, I., 1980, A városépítés alkalmazott társadalmi gazdasági modelljének elméleti és módszertani kérdései, Budapesti Városépítési Tervező Vállalat, (manuscript).

Enyedi, G. and Szirmai, V., 1992, *Budapest: A Central European Capital*, London, Belhaven Press.

Földi, Z., 2006, Neighbourhood dynamics in Inner-Budapest – A realist approach. *Netherlands Geographical Studies* (350). Utrecht.

Főmterv, 2008: Budapest Közlekedési Rendszerének Fejlesztési Terve. Manuscript, Budapest, December 2008.

Hegedüs, J. and Tosics, I., 1992, Conclusion: Past tendencies and recent problems of the East European housing model, in: Turner, B., Hegedüs, J., and Tosics I. (eds), *The Reform of Housing in Eastern Europe and the Soviet Union*, London, Routledge, pp.318-334.

Hegedüs, J. and Tosics, I. 1996, Disintegration of the East-European Housing Model, in: Clapham, D., Hegedüs, J., Kintrea, K., and Tosics, I. (eds, with Helen Kay), *Housing Privatization in Eastern Europe*, Greenwood Press, pp.15-39.

Homan, J., Howl, D., and Tosics, I., 2007, Urbact-1 METROGOV, Final Report on Metropolitan Governance. Manuscript, Birmingham City Council.

Izsák, E. and Probáld, F., 2003, Le développement de l'agglomération de Budapest: l'exemple de Budaörs, *Revue géographique de l'Est* 12(1-2): 61-68.

Kiss, E., 2007, The evolution of industrial areas in Budapest after 1989, in: Stanilov, K. (ed), *The post-socialist city: urban form and space transformations in Central and Eastern Europe after socialism*. The GeoJournal library, 92, Dordrecht, Springer, pp. 147-170.

Kok, H. and Kovács, Z., 1999, The process of suburbanization in the agglomeration of Budapest, *Netherlands Journal of Housing and the Built Environment* 14(2): 119-141.

Kovács, Z., 1994, A city at the crossroads: social and economic transformation in Budapest, *Urban Studies* 31(7): 1081-1096.

Kovács, Z. and Dövényi, Z., 1998, Urbanization and urban development in Hungary, in: Bassa, L. and Kertész, Á. (eds.), *Windows on Hungarian Geography: Studies in Geography in Hungary* 28, Budapest, Geographical Research Institute, Hungarian Academy of Sciences, pp. 157-173.

Lukács, A. and Beliczay, E., 2001, A városi terjeszkedés hajtóerői Magyarországon, in: Éri, V. (ed) *Terjeszkedés vagy ésszerű városfejlődés?* Budapest, Környezettudományi Központ, pp.33-38

Michalkó, G., 2001, Social and geographical aspects of tourism in Budapest, *European Spatial Research and Policy* 8(1): 105-118.

Molnár, B., Szépvölgyi, Á. and Szirmai, V. 2007. The social structure of Hungarian urban areas: key factors and characteristic features, in: Szirmai, V. (ed) *Social Inequalities in Urban Areas and Globalization. The Case of Central Europe*. Discussion Papers Special, Pécs, Centre for Regional Studies, Hungarian Academy of Sciences, pp. 18-51.

MRI, 2008: Hatékony közlekedés-menedzsment Budapesten. A fővárosi behajtási díj vizsgálata. Metropolitan Research Institute, Budapest. March 2008.

OECD (2008), Growing Unequal? Income Distribution and Poverty in OECD Countries. www.oecd.org/els/social/inequality

Sailer, U., 2001, Residential mobility during transformation: Hungarian cities in the 1990s, in: Meusburger, P. and Jöns, H. (eds), *Transformations in Hungary: Essays in Economy and Society*, Heidelberg, Physica Verlag. pp. 329-354.

Schuchmann, P., 2001, Városi terjeszkedés a budapesti agglomerációban, in: Éri, V. (ed) *Terjeszkedés vagy ésszerű városfejlődés?* Budapest, Környezettudományi Központ pp 18-27.

Szelényi, I., 1996, Cities under socialism and after, in: Andrusz, G., Harloe, M., and Szelényi, I. (eds), *Cities after Socialism: Urban and Regional Change and Conflict in Post-socialist Societies*, Oxford, Blackwell Publishers, pp. 286–317.

Szemző, H. and Tosics, I., 2005, The development of the spatial plan for the Agglomeration of Budapest, a case study written for the ESPON 2.3.2 program on the development of territorial governance, Budapest, Metropolitan Research Institute.

Timár, J. and Váradi, M. M., 2001, The uneven development of suburbanization during transition in Hungary, *European Urban and Regional Studies* 8(4): 349-360.

Tosics, I., 2001, A városi terjeszkedés visszaszorításának közgazdasági, jogi, intézményi eszközei és ezek hazai alkalmazásának problémái, in: Éri, V. (ed.), *Terjeszkedés vagy ésszerű városfejlődés?* Budapest, Környezettudományi Központ pp 62-74.

Tosics, I., 2005a, City development in Central and Eastern Europe since 1990: the impact of internal forces, in: Hamilton, F.E.I., Dimitrowska-Andrews, K., and Pichler-Milanovic, N. (eds), *Transformation of Cities in Central and Eastern Europe: Towards Globalization*, Tokyo, United Nations University Press, pp. 44-78.

Tosics, I., 2005b, The post-socialist Budapest: the invasion of market forces and the attempts of public leadership, in: Hamilton, F.E.I., Dimitrowska-Andrews, K., and Pichler-Milanovic, N. (eds), *Transformation of Cities in Central and Eastern Europe: Towards Globalization*, Tokyo, United Nations University Press, pp. 248-280.

Tosics, I., 2006, Spatial restructuring in post-socialist Budapest, in: Tsenkova, S. and Nedovic-Budic, Z. (eds), *The Urban Mosaic of Post-Socialist Europe: Space, Institutions and Policy*, Springer, Physica-Verlag pp 131-150.

Tables

Table 4.1 Natural increase and migration in Budapest Metropolitan Region (BMR), 1990-2007

Source: Central Statistical Office (CSO), Budapest

| | Population 1990 | Population 2007 | Population change 1990-2007 | Natural increase | Balance of migration |
|----------|--------------------|--------------------|-----------------------------------|---------------------|-------------------------|
| Budapest | 2 016 681 | 1 696 128 | -320 553 | -174 225 | -112 107 |

| | | | | | |
|-----------------|-----------|-----------|----------|----------|---------|
| Agglomeration | 566 961 | 755 290 | 188 329 | -6 139 | 164 466 |
| BMR | 2 583 642 | 2 451 418 | -132 224 | -180 364 | 52 359 |
| Central-Hungary | 2 966 523 | 2 872 678 | -93 845 | -204 604 | 110 332 |

Table 4.2 Dynamics of mobility patterns in Budapest, 1990-2006

Source: Central Statistical Office (CSO), Budapest

| Period | Population of Budapest | Annual domestic migration balance of Budapest | Annual domestic migration balance of Budapest against Pest County |
|------------------------|------------------------|---|---|
| Uncertainty (1990-94) | 2 015 955 (1992) | - 3 775 | - 6 800 |
| Adaptation (1995-2001) | 1 821 000 (1998) | - 12 731 | -14 150 |
| Adjustment (2002-2006) | 1 697 000 (2004) | - 7 092 | - 13 765 |

Table 4.3 Investments in new retail projects in Budapest and its agglomeration, 1990-2005

Source: Statistical Yearbooks, own calculations

| Commercial development, new investments | Vacuum period 1990-1995 | Adaptation period 1996-2000 | Adjustment period 2001-2005 | Total 1990-2005 (percentage) | Total 1990-2005 ('000 sq m) |
|---|-------------------------|-----------------------------|-----------------------------|------------------------------|-----------------------------|
| Small Budapest | 31.1 % | 45.1 % | 64.7 % | 51.0 % | 531 |
| Inner periphery | 45.6 % | 31.9 % | 12.2 % | 26.0 % | 271 |
| Agglomeration zone | 23.3 % | 22.9 % | 23.1 % | 23.0 % | 240 |
| Total in '000 sq m | 103 | 554 | 385 | | 1,042 |

Figure captions

Figure 4.1 Structure of Budapest urban region

Source: Dövényi and Kovács, 2006

Figure 4.2 Balance of migration in the municipalities of Budapest urban region, 1990-2007

(immigrants/1000 inhabitants)

Source: Statistical Yearbook 1990-2007

Figure 4.3 Volume of newly built dwelling units in Budapest and its agglomeration, 1990-2007

Source: Statistical Yearbook Budapest 1990-2007

Figure 4.4 Development poles in the Budapest urban region

Source: Adapted from Dövényi and Kovács, 2006

¹ Only people who had worked or studied in Budapest for five years could acquire permanent residence status (Kovács, 1994).

² For example, the share commuters in Verseg was 84.7 percent, in Gyál 81.1 percent, in Üröm 80.4 percent, in Göd 80.3 percent, and in Isaszeg 80.2 percent (Burdack et al, 2004).

³ The ratio between the income of the highest and the lowest percentile of the population is the lowest in Denmark and Sweden (around 1:5), the highest in Turkey and Mexico (around 1:25), while in Hungary it is slightly below the OECD average of 1:8 (OECD, 2008).

⁴ These transactions could be carried out even with public housing units as tenure swapping was allowed in Hungary.

⁵ In most developed democracies this type of rezoning is controlled by a higher-level administrative body ensuring that the sum of the land supply provided in the region corresponds to the planned demand. The opportunity for such control was intentionally terminated with the Law on Local Governments adopted in 1990. The law granted almost complete freedom of decision-making to local governments, stripping the county governments of their regulatory functions.

⁶ In 1990, the entire amount of the Personal Income Tax revenues were allocated to the taxpayers' local governments. This share was reduced to 50 percent in 1991-92 and to 30 percent in 1993-94. In 1995, the distribution of PIT revenues was changed again – local governments received directly 29 percent, while 6 percent were redistributed according to normative criteria. The formula was continuously amended, lowering the share of direct appropriation, which by 2003 fell to 10 percent (Kecskés, et al, 2005).

⁷ An urban planning conference on development issues in post-socialist Budapest held in 1994, for instance, did not even mention the emergence of shopping centers, although the first plots had been already acquired and their construction permits approved.

⁸ One of these is the Budapest Transport Development Plan addressing transportation problems and solutions concerning the entire metropolitan area.