

**SOCIO-SPATIAL RESIDENTIAL
SEGREGATION
IN POST-SOCIALIST CITIES:
THE CASE OF TALLINN, ESTONIA**

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The Faculty Council of Biology and Geography, University of Tartu, has on August 23, 2006 accepted this dissertation to be defended for the degree of Doctor of Philosophy (in Geography).

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This thesis will be defended at the University of Tartu, Estonia, on October 13, 2006, at 10.15 in the Scientific Council room in university main building, Ülikooli 18.

The publication of this dissertation has been funded by Institute of Geography, University of Tartu.

ISSN 1406–1295
ISBN 9949–11–443–8 (trükis)
ISBN 9949–11–442–X (PDF)

Autoriõigus Anneli Kährik, 2006

Tartu Ülikooli Kirjastus
www.tyk.ee
Tellimus nr 491

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ABSTRACT

The thesis examines the main factors that have led to changes in socio-spatial residential pattern in Tallinn, the capital city of Estonia, and its surrounding region in the post-socialist period, and analyses transformation of this pattern during the period 1991–2005. The thesis consists of an introductory chapter and four publications. The data used for analysis have been derived mainly from national residential surveys (covering the period 1995–1999) and residential surveys carried out in Tartu (1998) and in new suburban settlements of the Tallinn metropolitan region (2006).

There is a widespread agreement that substantial differences existed between socialist and capitalist social systems, resulting in different mechanisms of socio-spatial urban pattern formation and influencing the pattern of residential segregation. Socialist cities are generally characterised by a lower level of residential segregation as compared to capitalist cities. Transition from socialist to market economy in Central and Eastern European countries has brought along new distribution mechanisms, while many continuities originating from the previous system can also be seen. The path dependence embraces the conversion of different types of capital, suggesting that capital accumulated under the communist regime can serve as an advantage, securing a good starting position at the doorstep of the new system.

All the main preconditions for enhanced residential segregation, i.e. increasing social disparities, diminished public intervention – including housing privatisation – and increasing differentiation within the housing stock have paved the way for the expansion of socio-spatial disparities in the housing market of the capital city of Estonia during the post-socialist period. Transition to the market economy has altered social stratification orders in Estonia, allowing many ‘new groups’ to join the elite, whereas the institutional setting has also supported the conversion of capital for many members of the old communist elite. The increased social disparities have led to better visibility of the previously latent residential segregation pattern, as well as to changes resulting from selective residential mobility.

The results of the empirical studies reveal that by the end of the 1990s, the socio-spatial residential pattern in Tallinn was to a large extent still characterised by the continuity of the socialist structures, and no substantial residential segregation or polarisation between housing submarkets and larger spatial units could be seen. However, new market distribution rules have led to a moderate but gradual increase in socio-economic residential disparities. The findings show that the Tallinn metropolitan area is characterised by the development of pockets of wealth and poverty within an otherwise mixed socio-spatial pattern. Some low-status tenement blocks in the inner city have been subject to continuous social decline during the transition period. In the more rapidly developing parts of the city region, in particular the most central gentrifying locations and

low-rise suburbs attractive to the affluent, the structures of the old system contrast most sharply with the new market structures. Apart from these extremes, a vast majority of the population remains residing in socialist high-rise housing estates. Developments in these Soviet estates lead to a significant differentiation in the socio-economic residential status between the estates, which largely reflects the socialist housing allocation principles.

LIST OF ORIGINAL PUBLICATIONS

This thesis is based on the following published and unpublished papers:

- I **Kährrik, A.** (2000) Housing privatisation in the transformation of the housing system. The case of Tartu, Estonia, *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, 54, 2–11.
- II **Kährrik, A.** (2002) Changing social divisions in the housing market of Tallinn, Estonia, *Housing, Theory and Society*, 19 (1), 48–56.
- III Ruoppila, S. and **Kährrik, A.** (2003) Socio-economic residential differentiation in post-socialist Tallinn, *Journal of Housing and the Built Environment*, 18, 49–73.
- IV **Kährrik, A.** and Tammaru, T. (forthcoming) Suburbanisation and residential differentiation in the Tallinn metropolitan area, *Urban Studies*, submitted.

In addition, the following author's publications are related to the research topic:

- V **Kährrik, A.**, Kõre, J., Hendrikson, M. and Allsaar, I. (2003) Chapter 4: From a state controlled to a laissez faire housing system. In M. Lux (ed.), *Housing Policy: an End or a New Beginning?*, pp. 183–242. Budapest: Open Society Institute.
- VI Jauhiainen, J. S. and **Kährrik, A.** (2005) Chapter 7: Estonia. In R. van Kempen, M. Vermeulen and A. Baan (eds.) *Urban Issues and Urban Policies in the New EU Countries*, pp. 131–154. Aldershot: Ashgate Publishing Limited.
- VII **Kährrik, A.** (forthcoming) Tackling social exclusion in European neighbourhoods: experiences and lessons from the NEHOM project, *GeoJournal*, in press.

Author's contribution:

Publications I, II and VII: The author was solely responsible for preparing and writing the manuscript. In preparing the publication I author was the main responsible for organising the questionnaire survey carried out in Tartu (1998).

Publication III: The author bore the main responsibility for data analysis, and participated equally in designing the research, writing the theoretical overview and compiling the results of the empirical study. The author contributed to a lesser extent to compiling the sections 2 and 3.1.

Publication IV: The author equally participated in designing the research, carrying out data analysis, writing the results of the empirical study and compiling the manuscript. The author also participated in preparing the questionnaire for a residential survey carried out in new suburban settlements of the Tallinn metropolitan region (2006).

Publication V: The author bore the main responsibility for designing the research, data collection, data analysis and writing the manuscript.

Publication VI: The author equally participated in designing the research and writing the manuscript.

1. INTRODUCTION

The fall of the Berlin Wall and the demise of the former Soviet Union brought along major transformations in the political, economic and social structures in the formerly centrally planned societies. There is a general agreement that despite some differentiation, the cities of Central and Eastern Europe¹ (CEE) under the socialist regime carried distinctive residential features as compared to the Western capitalist cities. However, the question whether the transformation of the post-socialist cities of Central and Eastern Europe will lead to a resemblance with the cities in Western Europe, or whether they will maintain their distinctiveness, is still a matter of ongoing discussions. Therefore, more studies on socio-spatial transformations in the former communist block of countries are needed to build up the knowledge and empirically grounded theories in order to reflect upon and clarify this issue.

Residential conditions have a crucial role to play in the societal transformation process. The differential quality of residential areas and housing situations do not merely reflect the existing social values and social divisions in society, but they also carry an independent role in modifying the existing social structures. They either constrain or enhance people's quality of life and opportunities to fully participate in the society. Studies on post-socialist residential differentiation carried out to date have been rather descriptive and selective in terms of the urban neighbourhoods studied. There is a lack of precise evidence-based analysis on socio-spatial differentiation processes and their outcomes covering whole cities or entire city regions. The main research has been carried out in the post-socialist capital cities of the Central-East European countries (e.g. Warsaw, Budapest and Prague), whereas limited empirical evidence is available for other Central and Eastern European post-socialist cities. However, there were great differences in the initial socio-cultural, political and economic situation between the various post-socialist countries in 1991, as well as in the subsequent transition strategies applied. Therefore, an overarching generalisation of the research results regarding post-socialist cities is highly questionable.

In light of these considerations, the current PhD research was carried out with the following two aims. Firstly, to examine the main factors that have led to changes in the socio-spatial residential pattern in Tallinn, the capital city of Estonia, and its surrounding region in the post-socialist period, and secondly, to analyse the main changes that have taken place in the pattern of socio-spatial segregation in Tallinn and its surrounding region during the transformation period (1991–2005). The following main questions are asked: What have been

¹ The following countries are included in the region of Central and Eastern Europe: Central-East European countries (Czech Republic, Hungary, Poland, Slovakia, Slovenia), Southeast European countries (Albania, Bulgaria, Croatia, Romania) and the Baltic countries (Estonia, Latvia and Lithuania).

the main factors leading to changing socio-spatial residential structures? Has there been an increase in residential segregation in Tallinn during the post-socialist period? What kinds of socio-spatial residential changes can be recorded during the transition period in the capital region of Estonia, Tallinn?

On the one hand, Estonia was among the leading countries in the former communist block to shortly adopt radical market and housing reforms, including large-scale housing privatisation; on the other hand, the fast economic restructuring and subsequent economic growth have resulted in unequal benefits to different social groups and in greatly increased social disparities. These disrupting societal changes lead one to expect a substantial modification of intra-urban residential structures, to reconcile the households' housing situation with their changed socio-economic status. The largest cities (especially the capitals) are expectedly the most dynamic places where changes become the most apparent – these are the places of capital accumulation, and they accommodate the largest variety of socio-economic and cultural groups, providing preconditions for enhanced socio-economic and spatial differentiation.

The data used for analysis have been derived mainly from national residential surveys (covering the period 1995–1999) and residential surveys carried out in Tartu (1998) and in new suburban settlements of the Tallinn metropolitan region (2006). All of these surveys were carried out using a quantitative methodology. Analytical methods applied include, among others, time series of segregation indexes and binary logistic regression analysis.

The thesis proceeds as follows. The introductory part preceding the publications aims at giving a systematic overview of the research topic. It starts by presenting the theoretical framework for the empirical studies and providing background information on post-socialist residential changes in Tallinn. After this general overview, the social and housing situation and transformations in housing policy in Estonia are reviewed. The final part presents data and methods used in the empirical studies included herein, specific research questions explored in the studies, and the main findings.

The four main publications included in the thesis are presented in the following order:

- The first paper explains the principles and preliminary outcomes (as evidenced by 1998) of the housing privatisation reform in Estonia as the main housing sector process creating preconditions for housing market development and increasing residential differentiation. Although the analysis was limited to the city of Tartu, the second largest city in Estonia, the ownership reform and its implications on residential differentiation were similar in the capital city;
- The second paper explains the processes influencing residential differentiation in Tallinn, and presents an analysis of the transformation of the residential pattern across different (quality and tenure) housing submarkets in the capital during the period of 1995–1999;

- The third paper focuses on the residential pattern based on the spatial units in Tallinn in 1999, the only year for which national survey data on socio-economic characteristics of these units are available. The paper explains the ongoing segregation processes in Tallinn by providing empirical evidence about the segregation pattern in 1999;
- The fourth paper extends the scope of the research by encompassing regions surrounding the Tallinn core city, and provides an analysis of the suburbanisation process in newly built settlements (established by 2005) and its impact on residential differentiation in the Tallinn metropolitan area.

2. THEORETICAL BACKGROUND

2.1. Transformation of urban structures: the ‘path-dependency’ approach

The prevailing socio-economic and political structures in society such as economic organisation, political structures and social relations create conditions for influencing the actions of individuals and shape the urban socio-spatial outcomes (Harloe, 1996; Szelényi, 1978, 1996). However, these structures (or orders) should be understood as not external to human agency, but as being (un)intentionally (re)produced by human agents through the structuration process (see Giddens, 1984). Importantly also, structures are both the medium and the outcome of the practices they recursively organise (*ibid.*, p. 25). “The socio-political system in operation in a country provides the arena in which the relationships between the market and policy develop” (Balchin 1996, pp. 11–13). Besides being influenced by system-specific socio-economic orders, (post-)socialist as well as capitalist cities are influenced by the other parallel transformations, i.e. from an industrial to a post-industrial service-providing and information-concentrating society, as well as by globalisation processes such as increasing influence of international institutions and an increasingly integrated world economy, resulting among other consequences in a new pattern of international migration, a widespread reduction in state involvement, deregulation and dropping expenditure on housing (Clapham, 2002; Pichler-Milanovich, 1997; White, 1998).

There is a general agreement that radical restructuring of social structures taking place in Central and Eastern European countries will lead to a changed socio-spatial pattern. However, there is some disagreement on how the new pattern will look like, as well as on the speed at which the changes will be achieved. Some authors propose a more teleological, so called market transition, approach from socialism to market economy, arguing that post-socialist countries experience significant changes in opportunity structures which result in reduction of inequalities between former redistributors and immediate producers (e.g. Nee, 1989; 1991²). However, Nee (1991) notes that in the initial stage of transition socialist cadre power will continue to be strong and their privileges will be retained. Other scholars adopt a more conservative view, believing that the socialist past will significantly influence the present and the future of the post-socialist countries for a long period to come (e.g. Bodnár, 1996; Pickvance, 1997; Stark, 1996). They also argue that the end result of transition in these countries is to some extent still unknown and could be quite different from the Western European systems (Pickvance, 1997; Smith, 1996;

² Nee’s study was, however, carried out in rural China and is not directly comparable to the post-socialist cities in CEE countries.

Szelényi, 1996). These differences in theorising on post-socialist urban change have also created some confusion regarding the concepts of 'transition' and 'transformation'. It has been argued that the former refers primarily to teleological development where the destination is pre-determined, whereas the latter refers to less certain outcomes (Lauristin, 1997; Pickvence, 1997; Róna-Tas, 1998).

The current thesis adopts the path-dependency approach as a starting point for analysis, suggesting that the socialist structures will to a large degree influence the speed and extent of adjusting to the new market reforms, and that the pre-socialist and socialist legacy has a strong and long-lasting impact on the socio-spatial urban outcomes in post-socialist societies. As regards the transition/transformation debate, a quite flexible concept of 'transition' is applied, as proposed by Enyedi (1998, p. 9):

“'Transition' can be defined as a particularly significant stage of societal development in which more and more external and/or internal difficulties hinder the reproduction of the social and economic environment that forms the basis of society. New economic and social conditions emerge to become generally dominant in due course. Whether rapidly or slowly, violently or peacefully, these new conditions determine how the new system of society will look”.

The terms 'transition' and 'transformation' are used as synonyms in the current thesis.

'Path dependence' means that the legacies of the socialist system cannot be abolished overnight and subsequently replaced by the new, capitalist orders. Instead, a marked continuity can be seen in current post-socialist societies (Enyedi, 1998; Pickvance, 1997; Smith, 1996; Stark, 1996). “/.../ the socialist city will act as a constraint on the development of new social formations” (Smith, 1996, p. 70). In their material form, as well as in the social networks, many of the socio-spatial orders are preserved in spite of radical economic or political changes, just as the socio-spatial orders of socialist cities were to a large extent influenced by the pre-communist structures (Smith, 1996)³. Another continuity resulting from the long-term exposure to certain types of institutions, organisations and relationships in the socialist system relates to people's mind structures (beliefs, attitudes, values, motivations etc.) (Hamilton and Burnett, 1979, p. 263; Lauristin, 1997). Enyedi (1998, p. 13) also refers to the pre-Soviet values and traditions and their importance throughout the

³ For instance, the physical housing structures are likely to impact the transformation of cities for the longest period. The effects of the socialist period housing allocation are also likely to persist for several decades in CEE countries, as the political strategies chosen at the beginning of the transition process supported their continuation. Depending on the political will today and in the future, and the pace of change of people's behavioural patterns, the changes are likely to occur at a different speed throughout Central and Eastern Europe.

socialist period: “/.../ since the value of urban spaces is deeply rooted in common European cultural traditions, it did not significantly change during the communist regime. The population rejected egalitarian ideology, preferring to live in better homes located in areas of higher social prestige.”

The former communist⁴ countries of Central and Eastern Europe (CEE) share many similarities in their socio-economic and political history of the post-WWII period⁵. In spite of the existence of a marginal informal private economy (e.g. some private entrepreneurship and private housing ownership in some countries), the economic and political system in these countries could be characterised as ‘socialist’ in the following respects: first, these industrial societies abolished private ownership of the means of production as well as most of the means of collective consumption, which were instead subjected to the monopoly of state ownership; second, market relations were replaced by a redistributive, centrally planned economic system; and thirdly, a one-party (Communist Party) political system prevailed (Enyedi, 1998; Kornai, 1992; Pickvance, 1997; Szelényi, 1983, 1996; Tammaru, 2001a). In contrast, the capitalist system can be identified as a democratic system where market relations prevail in the economy with different forms and extent of state interventions, and the means of production are mostly private (Hamilton, 1979; Harloe, 1996; Pickvance, 1997; Szelényi, 1996). Unlike in the socialist system, the market serves as the main distributor of goods and services in the capitalist system. Instead of central planners and other central distributors, the key role is played by capitalists, developers, investment banks, real estate speculators, etc. (Szelényi, 1987, p. 7). The state mainly sets the legal framework for societal processes and reallocates market-generated income.

The Communist Party functioned through the centralised state apparatus, which “sought to control and order every aspect of social, economic and political life” (Harloe, 1996, p. 4; Kornai, 1992). Civil society was under-developed in the Soviet period, and “the very techniques of grassroots organisation of society had been forgotten” (Enyedi, 1998, p. 13). Central planning along with state ownership of land and other means of production had replaced the functions of the market, resulting in a much more powerful control over spatial development than under capitalism (Smith, 1994, 1996). The key actors in the

⁴ In this thesis, the terms ‘communist system’, ‘socialist system’, ‘Soviet system’, ‘state socialism’ and ‘centrally planned economy’ are used as synonyms to describe the social system of former socialist countries. Likewise, the terms ‘capitalist system’ and ‘market economy’ are used as synonyms to describe the social system in capitalist countries. These two types of systems broadly coincide with the East-West divide of Europe, which is reflected in the usage of the terms ‘Eastern countries’ and ‘Western countries’.

⁵ Harloe (1996), Lauristin (1997) and Pichler-Milanovich (1997) also point to the uniqueness of each particular post-socialist society, whose past continues to influence the development path of that society to some extent. Substantial differences in historical developments in different CEE countries provided them with very different starting positions in 1991 (Pichler-Milanovich, 1997).

system were central planners, redistributive policy-makers, and lower-level government and enterprise bureaucracies (Szelényi, 1987, p. 7). In the socialist system, the bureaucracy (i.e. the political leadership, state administration and related institutions such as state enterprises) enjoyed an almost full ideological monopoly (Kornai, 1992, p. 49). The ideological goals of the socialist system encompassed egalitarian principles and were aimed at distributing public goods and services according to need (Enyedi, 1998; French and Hamilton, 1979; Smith, 1996). The abolition of capitalist ownership of land and property from which unearned income or profit could be derived, became the underlying strategy to achieve the egalitarian goals. One of the main intrinsic differences between socialist and capitalist systems lies in the role of the state in achieving the welfare goals. In the socialist system, the state distributes the surplus generated by itself, while in the capitalist system the state only redistributes profits created largely by the private sector (Szelényi, 1978, p. 65).

2.2. Post-socialist transformation in social stratification orders

Socialist societies were characterised by socio-economic stratification of population, which consisted of a relatively large and homogeneous ‘middle mass’, a politico-military, industrial and intellectual elite, and a limited stratum of ‘underclass’ (those excluded from the mainstream of society) (Harloe, 1996, p. 4). Thus, the greater state control under socialism, coupled with a relatively homogeneous social structure, did not automatically translate into an egalitarian distribution and elimination of socio-spatial differences. Szelényi (1987, p. 7) points out that “socialist cities are inequalitarian and anarchistic in a new, qualitatively different way”. In spite of socialist egalitarian ideology (French and Hamilton, 1979; Smith, 1996), the system favoured certain socio-economic groups, i.e. the so-called nomenclature or elite (Hegedüs and Tosics, 1996; Szelényi 1989). As argued by Smith (1996, p. 80), the housing system under state socialism was ‘intrinsically regressive’ in its distribution of resources, meaning that those who were well-placed in society benefited disproportionately: higher-ranked families who lived in more spacious and better quality public housing units received the largest share of state subsidies (see also Szelényi, 1978; Pickvance, 1997).

The continuities characterising transitions from one system to another involve the transference of various forms of capital (assets). Many different forms of capital have been identified – physical, political, economic, social, human, as well as cultural (Róna-Tas, 1998, p. 115). The definitions vary: social capital is sometimes also referred to as political capital, and human capital is used instead of cultural capital. Also, the transference between these forms – e.g. between political and economic capital – is likely, because they can be

accumulated by the same institutions (*ibid.*, p. 115). The three main types of capital are (a) physical capital (lodged in objects), (b) human capital (residing in individuals), and (c) social capital (inherent in relations among individuals) (*ibid.*, p. 115). Stark (1992, p. 23, ref. in Bodnár, 1996) argues that the asset conversion is supported by the institutional settings, and therefore path dependence is more than a mere insistence on continuity, bearing reference to institutional inertia. Social structures can be reproduced because assets (economic, social, etc.) are not system-specific. However, existing assets may depreciate in value, they are sometimes not used or are replaced or modified under new structural conditions, e.g. existing social networks are replaced by new ones, or new entrepreneurial skills are needed in the new system (Pickvance, 1997, p. 103).

As argued by Enyedi (1998) and Węclawowicz (1998), the transition from communist to post-communist regime has increased social and spatial polarisation. According to Węclawowicz (1998, p. 55), the polarisation primarily involves formation of two extreme social categories – a new elite and a new poverty stratum. Studying changes in the composition of the ‘elite’ provides a good indicator for testing the path-dependency thesis, since “elite positions are always the most contested ones, and should therefore be very sensitive to shifts in rules” (Róna-Tas, 1998, p. 113), giving the best idea about changes in transformational processes and their outcomes. Those who occupy key positions are also the principal agents of institutional change (*ibid.*, p. 113).

Along with the main transformational changes, Central and Eastern European countries have experienced changes in the elite structure twice during the 20th century (Enyedi, 1998, p. 14). As the socialist regime was introduced, the pre-Soviet social elite was reshuffled and the existing economic and political elite replaced by a new elite who had a strong political commitment (*ibid.*). The new elite comprised the upper-level actors in political, administrative, managerial, military, academic and artistic spheres (Enyedi, 1998, p. 14; Smith, 1994, p. 201). The politico-administrative-managerial elite (the so-called ‘nomenclature’) were the main gatekeepers of the system, shaping the outcomes of urban processes within the limited options available (Szelényi, 1987). They are often mentioned as the main beneficiary group in the communist system to whom various rewards, including the best housing, were distributed (Hegedüs and Tosics, 1996; Pickvance, 1997; Róna-Tas, 1998; Smith, 1996).

The transition to the market economy has once again changed the elite structure (Szelényi and Szelényi, 1995). Political and social capital acquired in the pre-transition system could be used as residual assets by some individuals, while proving disadvantageous for others (Róna-Tas, 1998; Węclawowicz, 1998). Due to personal connections and access to information, the advantaged group has successfully converted their existing social and political capital into various forms of property and wealth (economic and physical capital) in the new system (Duke and Grime, 1997; Enyedi, 1998; Węclawowicz, 1998). The privatisation mechanism also enabled the elite to convert their physical capital

into economic capital⁶ (Bodnár, 1996; Duke and Grime, 1997; Harloe, 1996; Pichler-Milanovich, 2001; Pickvance, 1997). However, Szelényi and Szelényi (1995) argue that no complete elite reproduction has taken place in Central and Eastern Europe – while mostly economic managers retained or even improved their positions, and new space was created for non-communist intellectuals and professionals, many from the bureaucratic fraction of the old communist elite were also pushed out from their positions.

Human capital, in the form of education and experience, can also serve as an advantage (Pickvance, 1997; Róna-Tas, 1998). Duke and Grime (1997, p. 884) and Enyedi (1998, p. 27–28) mention technical expertise and knowledge conferred by higher education as factors providing access to the economic elite, which occurs even more efficiently than in the previous system. Enyedi (1998, pp. 27–28) points to those experts who work for the state administration but also run their own consultancies as one of the major groups of winners, since they can use their influence and access to important information to ensure the success of their private enterprises. According to Enyedi (*ibid.*, p. 27), many of the entrepreneurs forming the new economic elite, as well as affluent technocrats and freelancing intellectuals, were already members of the elite under state socialism. He claims that it is “exceptionally rare to find successful entrepreneurs who have arisen from the working class”. Also, many new members of the political elite were formerly well placed in research institutes or literary circles (Enyedi, 1998, p. 27).⁷ In addition, Harloe (1996, pp. 7–8) and Duke and Grime (1997, p. 884) describe those individuals who were successful players in the black economy in the Soviet times as expanding their enterprises and becoming a part of the new economic elite in the mid-1990s.

In addition to the old ‘nomenclature’ and other successful groups from the old system, members of a new generation in the post-socialist society are also gaining positions in the elite stratum. Many young people have become top professionals after acquiring high qualifications (Enyedi, 1998, p. 27). It is generally accepted that those working in the private sector in post-socialist countries are more likely to be winners than those employed in the state sector (Duke and Grime, 1997, p. 884).

⁶ Those who obtained permanent tenancy rights in public rented dwellings during the socialist period received more state subsidies than other households who did not possess their own dwelling or had to invest their own resources in acquiring housing. There was thus unequal redistribution of wealth caused by housing privatisation that corresponded to the original access to housing of a particular size, quality and location during the socialist period (Pichler-Milanovich, 2001). Stark (1992, ref. in Szelényi and Szelényi, 1995) describes the changes in housing ownership structure as gradual reshuffling of property rights within public ownership, i.e. the change from ‘plan’ to ‘clan’.

⁷ Nee (1989; 1991), who studied social stratification orders in rural China, argues instead that a significant restructuring of the elite is taking place, creating new opportunities for entrepreneurship and allowing new social groups to move up (including industrial and agricultural workers).

As regards the non-elite classes, Enyedi (1998, pp. 28, 31) argues that in the post-socialist Central and Eastern European cities, middle classes consisting mostly of white-collar workers (public sector employees, etc.) are under-represented. On the other hand, the share of the urban lower class in the population is significant, including mostly members of the working class who lost their former social status due to industrial restructuring (Enyedi, 1998, p. 28). The urban lower class has also absorbed some former members of the middle class such as low-paid intellectuals (e.g. primary school teachers) and elderly people whose pensions have lost their value (Duke and Grime, 1997, p. 884; Enyedi, 1998, p. 28).

2.3. Urban socio-spatial residential segregation: causal factors and impacts

Socio-spatial residential segregation designates the relative separation of residential population categories from each other⁸ (Musterd *et al.*, 1999, pp. 575–576). It characterises the extent to which social groups are unevenly distributed in urban space. Socio-spatial differentiation exists when some areas show over-representation and other areas show under-representation of a particular population category (*ibid.*). Unequal distribution of social groups in the housing market is the result of social constraints and opportunities, as well as subjective choices of individuals (Peach, 1998; van Kempen and Ozuekren, 1998). Therefore, socio-spatial residential differentiation is an indirect indicator of socio-economic and cultural divisions in society. Socio-economic disparities existing in society, spatial differentiation of the housing stock (incl. shortage of and competition for certain housing types) and the extent of state intervention in the housing market have been the most frequently mentioned structural factors leading to socio-spatial segregation (Dangschat 1987, p. 38; Smith, 1996, p. 97). The higher competition for certain housing submarkets can also be induced by differences in local service provision and general environmental quality (Smith, 1996, p. 97). The main factors leading to residential segregation are described below.

First of all, residential segregation is related to social disparities in society, especially the existing socio-economic disparities, i.e. the gap between the rich and the poor. Increased income inequalities are deemed to be the main factor increasing residential differentiation in market-economy countries (Musterd and Ostendorf, 1998; Musterd and de Winter, 1998; van Weesep and Van Kempen, 1992). In the market economies, “the primary inequality concerns the income

⁸ In this thesis the terms ‘socio-spatial residential segregation’ and ‘socio-spatial residential differentiation’ are used as synonyms.

level which conditions access to the type of housing market” (Castells, 1978, p. 21).

Due to historical development of cities and prevailing housing and urban policies, different quality housing and tenure types are usually unevenly located in cities. Socio-spatial residential differentiation can be a result of differential access to various housing submarkets, but can also result from households’ preferences towards various types and locations of housing. The ongoing urban residential transformation is to a large extent influenced by the spatial-historical urban pattern, i.e. the heterogeneity as well as differential quality and spatial location of housing types (Dangschat, 1987; Harloe, 1996; Smith, 1996), as well as by the existing pattern of socio-spatial residential differentiation (Harloe, 1996). The socialist housing and residential structures act as a constraint on the development of new socio-spatial residential formations (Harloe, 1996; Smith, 1996).

In socialist cities where planning, housing construction and allocation were strictly state-controlled, housing policy had a significant impact on the socio-spatial residential structures (see section 2.4). In Western European countries, socio-spatial residential differentiation has been influenced by the market distribution, with the (welfare) state assuming a redistributive role (Musterd and Ostendorf, 1998; Musterd and de Winter, 1998; Van Weesep and Van Kempen, 1992). Housing policy and social policy measures can significantly level off socio-spatial residential differences created by the market, and facilitate access to housing. For example, provision of spatially scattered social housing targeted at socially vulnerable groups can prevent extensive socio-spatial segregation.

However, structural conditions alone do not fully explain the uneven distribution of social groups (Peach, 1998). Within societal constraints and opportunities, households make choices based on their needs and preferences. For instance, certain minority groups “may have a strong urge to internal cohesion, so that the cultural ‘heritage’ of the group may be retained” (Boal, 1976, p. 45, ref. in Knox, 1995, p. 188). Explanations that do not consider the impact of cultural factors and household preferences on an existing residential pattern are not comprehensive (Peach, 1998).

The research on the impacts of residential segregation carried out in Western European countries and the U.S. suggests that the life opportunities of residents are influenced by their residential location in the city (e.g. Atkinson and Kintrea, 2004). Thus, residential location (neighbourhood) adds to the redistribution of ‘real income’ and exacerbation of inequalities between social classes (McDowell, 1999, p. 106; Smith, 1996, p. 97). Neighbourhood influences the way people are socialised into a wider social order, whereas the effects of neighbourhood are likely to be very different at different periods in the life-course of families (Forrest and Kearns, 2001).

The most outstanding forms of segregation – poverty concentration areas (also referred to as ‘poverty’ or ‘deprived’ neighbourhoods) and communities of the wealthy (e.g. gated communities, gentrified neighbourhoods) – have been

the most studied, as they seem to have the most profound impact on people's life chances and overall social cohesion in society (Atkinson, 2000, 2004; Atkinson and Kintrea, 2004)⁹. Living in a poverty concentration area has been considered to constitute one dimension of poverty (Andersen, 2002) and social exclusion¹⁰ (Hawtin and Kettle, 2000). Many authors (Andersen, 2002; Atkinson and Kintrea, 2000; Morrison, 2003; van Beckhoven and van Kempen, 2003; Wacquant, 1998; Wilson, 1984) have shown that socially and physically deprived neighbourhoods expose a serious threat of further exclusion of disadvantaged groups, affecting their relationships with the mainstream of society and their participation in the labour market. Andersen (2002, p. 153) claims that self-perpetuating negative social, economic and physical processes occur in deprived areas that make them increasingly different from the rest of the city, influencing people's lives. Poverty neighbourhoods may thus have a further impact on growing unemployment, create an increased need for social welfare services and benefits, and cause a lack of social integration on a city-wide level as well as high crime rates (Bolt *et al.*, 1998; Musterd *et al.*, 1999). A lack of role models for young people, who are successful as regards their education and employment, has also been mentioned as a cause for further alienation from the mainstream society (Wilson, 1987). The attitudes of residents towards education and unemployment constitute key life chance factors (Atkinson and Kintrea, 2004). Poverty neighbourhoods are often characterised by a lack of choice and quality in services and goods, as well as a lack of jobs and economic capital (Taylor, 1998; Wacquant, 1998).

Deprived neighbourhoods are more exposed to the risk of possessing underdeveloped social capital and social cohesion¹¹ (Atkinson and Kintrea, 2001; Morrison, 2003). Social capital is closely related to socio-cultural and ethnic belonging as well as to structural conditions (Meegan and Mitchell, 2001; Wacquant, 1998; Wilson, 1996): "as the basic institutions decline, the social organization of inner-city ghetto neighbourhoods deteriorates, further depleting the social resources and life chances of those who are trapped in these blighted areas" (Wilson, 1996, p. 248).

However, as referred to by Murie and Musterd (2004, p. 1457), converse processes can also develop in deprived neighbourhoods, resulting in supportive networks, well-preserved norms and values, and self-developed institutions

⁹ This topic is discussed in Kährik (forthcoming).

¹⁰ The concept of 'social exclusion' is based on the notion that societies and individuals can only achieve their potential when living and working together, an important aspect of which is the extent to which residents take an active part in shaping their own lives (Hawtin and Kettle, 2000, p. 122).

¹¹ Social capital refers to the sum of actual and potential resources that can be mobilised through membership in social networks of actors and organisations (Bourdieu, 1986; Coleman, 1988). The degree of 'social cohesion' in a neighbourhood, i.e. the way people are engaged in social networks and produce a sense of a common identity, can be measured through social capital.

established by residents, creating better opportunities for coping and a supportive and safer environment (see also Atkinson and Kintrea, 2004). This is often true in the concentration areas of a specific ethnic or cultural group, where informal contacts may lead to new prospects in the labour market or arising ethnic entrepreneurship (Bolt *et al.*, 1998). Minority clusters which persist over a longer period are usually the product of an interaction between discrimination and internal cohesion (Knox, 1995, p. 192).

The processes of ghettoisation of the poor and concentration of the affluent are linked and mediated by the local and central state in an increasingly inequitable way (Atkinson and Blandy, 2005, p. 180). Concentration of affluent people in areas such as 'gated communities' or gentrified neighbourhoods¹² leads to a pattern of increasing segregation on a metropolitan level (Le Goix, 2005), and to growing poverty in disadvantaged areas (Atkinson, 2006; Musterd and Ostendorf, 1998). There is an increasing number of gated communities (studied mostly in metropolitan areas in the U.S. and the UK), i.e. housing developments that restrict public access, usually through the use of gates, booms, walls and fences (e.g. Atkinson and Flint, 2004; Atkinson and Blandy, 2005; Blandy and Lister, 2005; Le Goix, 2005). These mark the withdrawal of households with middle and higher income into their distinctive areas (Atkinson and Flint, 2004), affecting negatively social cohesion in a wider neighbourhood and on a city-wide level (Atkinson, 2006; Putnam, 2000). These households tend to opt for specific time-space trajectories of segregation (Atkinson, 2006; Atkinson and Flint, 2004), i.e. daily patterns of movement from and to gated communities (Atkinson, 2006). As to the impacts on security, some authors (e.g. Atkinson, 2006; Low, 2003) argue that living in gated communities actually promotes fear of social contact outside these territories.

¹² Gentrification refers to the process of rehabilitation of run-down inner-city working class housing and the consequent transformation of these areas into middle- or upper-middle class neighbourhoods. Gentrification usually involves involuntary displacement of residents either by quickly inflating rents and house prices or through landlord harassment to secure vacant possession (Atkinson, 2004, p. 111). The following negative aspects have been considered to be related to gentrification (see Atkinson, 2004 for literature overview): the groups who are being replaced are likely to move to the surrounding poor areas, thus increasing housing demand in these areas; gentrified neighbourhoods are often characterised by community conflicts between the existing and new residents; due to remodelling of apartments into larger luxury units and conversion of some of the residential space to commercial space, the neighbourhoods are likely to loose population. On the positive side, gentrification usually leads to stabilisation of declining areas and rehabilitation of properties, often in architecturally desirable areas, reducing vacancy rates and increasing property values; it also results in reduced suburban sprawl and increased social mix (Atkinson, 2004).

2.4. Socialist housing system and urban residential segregation

According to Szelényi (1996, p. 300), socialist cities were characterised by ‘less diversity’ (e.g. less urban services, shops, etc.), by being ‘less economizing with space’, and by ‘less marginality’ in terms of social groups (incl. deviances such as crime, prostitution, homelessness). However, administrative housing allocation principles also created inequalities and an uneven spatial distribution of social groups (Dangschat, 1987; Musil, 1987; Szelényi, 1983, 1996).

In socialist countries, the housing system was not part of the economy but a public asset (similarly to food, education, etc.) to which every citizen had a right to have access (Hegedüs and Tosics, 1996; Kornai, 1992). It was ideologically the state’s obligation to provide the population with basic needs, including housing (Kornai, 1992, p. 54). This goal was implemented by nationalisation of the private housing stock and redistributing it on very low, subsidised, rents. The public provision of housing became one of the most important means by which the state sought to ensure satisfactory and relatively egalitarian living standards for all (Smith, 1996, p. 72). The housing policy aimed at ensuring that income and social status differences were not reflected in housing allocation (Pichler-Milanovich, 1997). The two important elements of the urban economy which affected housing development were the prominent role of the state in financing, building and allocating new urban housing, and the highly restricted nature of land markets in inner cities (Szelényi, 1996, p. 304; see also Balchin, 1996, pp. 18–19). Rents were below the replacement costs and did not reflect the real construction and maintenance costs (Clapham, 1995; Hegedüs and Tosics, 1996). To satisfy the social need for housing, new industrial housing construction programs were launched, whereas old neighbourhoods became greatly deteriorated (Szelényi, 1996). The dominance of construction of large-scale prefabricated apartment blocks¹³ was one of the most distinguishable features of socialist housing provision (Pichler-Milanovich, 2001).

Due to insufficient financial resources for provision of new public rented housing, the high cost of controlling private transactions and the existence of informal market processes, the main principles of the socialist housing system¹⁴ were never fully implemented, although they were put into practice to various degrees in different socialist countries (Clapham, 1995; Hegedüs and Tosics, 1996; Pichler-Milanovich, 2001). Some co-operative (by employees of the same organisations), private housing construction (self-constructed housing) and

¹³ While the share of large housing estates is around 3–7 per cent in the urban areas of the EU 15 countries, this figure can be as high as 30–50 per cent in the urban areas of former socialist countries (Geróházi and Szemző, 2006).

¹⁴ Often referred to as the “East-European Housing Model” (Clapham, 1995; Hegedüs and Tosics, 1996).

private property transactions (including illegal transactions with public property) took place in many of the socialist countries, but housing market as such was virtually non-existent (Hegedüs and Tosics, 1996).

Socialist cities, by restricting markets and by regulating regional processes, primarily through central planning, produced an asymmetrical allocation of social classes, occupational and ethnic groups in space (Szelényi, 1996, p. 303). The privileges given to certain groups – to the ‘nomenclature’ or other favoured groups from different labour strata whose work was highly valued in the system, e.g. industrial workers – created pre-conditions for socio-spatial segregation (Dangschat, 1987; Enyedi, 1998; Pichler-Milanovich, 1997; Smith, 1994, p. 200; Szelényi, 1987). The income differentiation itself was much less a determining factor in access to housing (Hegedüs and Tosics, 1996).

The different layout of cities (differences in architecture, building types and planning principles) generated diversity in the urban landscape, thus creating preconditions for the development of an unequal socio-spatial residential pattern in socialist cities (Dangschat, 1987; Pichler-Milanovich, 1997; Smith, 1994, 1996; Szelényi, 1987). Socialist cities were in general more compact than capitalist cities, and densities in urban areas were generally higher (Musil, 1993, ref. in Pichler-Milanovich, 1997, p. 31). The Soviet-period housing construction consisted mostly of homogeneous large-scale panel estates and thus resulted in fairly limited housing choice and reduced segregation (Ruoppila, 2002). However, remarkable housing and residential differences still existed between the pre-war housing stock¹⁵, the lower-quality Soviet housing and the better-quality Soviet apartment houses. A further basis for inequalities was created due to differential quality and availability of services across various city districts (Smith, 1996, pp. 77–78). Many homes were still built privately by households, in particular among the rural population that was practically excluded from state housing programmes, but private construction remained limited and controlled (Enyedi, 1998, p. 25). A family could only own one house or flat plus a second home in a resort area, with a fixed maximum size (*ibid.*).

The following socio-spatial pattern was shared by most of the socialist countries. The high-rise estates were mostly of a heterogeneous ‘socialist middle class’ character, although often, higher social status groups also had to adapt to these new estates (Ruoppila, 2002; Smith, 1994). Inner-city neighbourhoods with high-quality housing as well as villa districts usually kept up their higher status, while low-status neighbourhoods of the inner city declined socially and physically (Enyedi, 1998; Musil, 1987; Ruoppila, 2002; Smith, 1994, 1996). The inner city retained poorer families and the old, and began to attract lower-class immigrants. In some countries, private housing construction in cities was encouraged from the late 1960s and early 1970s (Szelényi, 1996),

¹⁵ The pre-war housing was usually divided between low-quality units (with a low level of facilities) and more highly valued better-quality stone houses in the centre. Enyedi (1998, p. 15) asserts that downtown residential areas were continuously prestigious.

while in other countries private construction was allowed to a limited extent only since the 1980s. The new single-family housing districts within cities tended to have a middle-class character, whereas single-family housing districts in the agglomeration were more village-like and had a lower status (Ladányi and Szelényi, 1998; Ruoppila, 2002; Tammaru, 2001b).

There is a general agreement that social segregation and inequalities were smaller under socialism than under the capitalist system (French and Hamilton, 1979; Pichler-Milanovich, 1994, 1997; Pickvance, 1997; Sailer-Fliege, 1999; Smith, 1994, 1996; Szelényi, 1996). Poverty was mitigated by full employment and the homeless were accommodated in workers' hostels (Enyedi, 1998, p. 14). Nevertheless, residential segregation did not completely disappear, although the mechanisms became different and more complicated (*ibid.*, p. 16). Some spatial differentiation according to occupational status, education, certain demographic characteristics and (less conspicuously) income was still to be found in cities, but it usually appeared in distinctive, rather small areas (some pre-revolution or pre-war housing areas, enclaves of either superior or inferior state housing, or co-operatives) (Pichler-Milanovich, 1997; Smith, 1996, p. 97) or was even restricted to individual building units (French and Hamilton, 1979, p. 98). There were no ghettos in Central and Eastern European cities, only some areas of concentration of lower or higher social status groups (Andrusz, 1984, p. 220, ref. in Smith, 1996, p. 84). The less 'system-favoured groups' were forced to move to the old decaying pre-socialist dwelling stock formerly occupied by the pre-socialist lower classes, to poorly equipped new flats or to the illegal self-help housing sector (Sailer-Fliege, 1998, p. 35). Dangschat (1987) and Szelényi (1987) argue that the socio-spatial pattern in socialist cities (e.g. in Warsaw), triggered by industrialisation, was to a certain extent similar to that in Western countries, although differentiation was less pronounced and the mechanisms were different.

2.5. Housing system transformation and urban residential segregation in post-socialist countries¹⁶

With the shift to the market economy, the socio-spatial pattern characteristic to socialist cities is experiencing significant changes. The return to the market economy has brought along large-scale housing and land privatisation and restitution¹⁷ programmes, as well as re-introduction of housing and land

¹⁶ The second part of this section is largely based on Ruoppila and Kährlik (2003).

¹⁷ Housing privatisation involved selling of housing units at highly discounted prices or giving away public rented housing to sitting tenants. In some countries (East Germany, the Czech Republic, Poland and Slovakia), the sale of public rented housing occurred on a selective basis (in Poland and the Czech Republic, the right-to-buy legislation was not passed), while in other countries an almost compulsory 'top-down' reform took place

markets, which replace administrative allocation as a main source of housing provision and create premises for a changing pattern of socio-spatial segregation (Bodnár, 1996; Clapham, 1995; Clapham and Kintrea, 1996; Daniell and Struyk, 1994; Kovács, 1998a; Pichler-Milanovich, 1994, 2001; Pickvance, 1994). The primary aims of housing privatisation in Central and Eastern European countries were (a) to reduce public sector borrowing and expenditure; (b) to promote an economically more efficient housing system; and (c) to provide a symbol of the legitimacy of private ownership in society (Clapham, 1995; Clapham and Kintrea, 1996; Pichler-Milanovich, 2001). Market mechanisms were perceived to be a more efficient way of organising the production and exchange of goods than the previous system of central planning – for instance, private market was believed to result in more active housing construction and satisfactory distribution of housing; the new mechanisms were also believed to create incentives for owners to keep their property in good condition (Clapham, 1995). The three principal pillars of the housing reform were: (1) decentralisation of state housing to local authorities, (2) the sale of public rented housing to sitting tenants at below market price¹⁸, and (3) restructuring of the non-privatised public rented sector (Pichler-Milanovich, 2001). Despite these main shared principles, differences in the institutional structures of housing provision and the extent of market structures present during the socialist period, as well as in population characteristics, cultural preferences, political choices during the transition period and the macro-economic position at the beginning of the reforms, have led to substantial differences in the outcomes of the housing reform in different countries (Lux, 2006; Pichler-Milanovich, 2001). Housing privatisation and restitution reforms

(Lux, 2006; Pichler-Milanovich, 2001). In most CEE countries, the housing nationalised after World War II was also restituted to the original owners or their heirs (Clapham, 1995; Pichler-Milanovich, 2001). In some of the countries where restitution took place, tenants in restituted housing were given privileges in allocating public rental housing (e.g. in Romania, Bulgaria, Estonia) or fiscal support (Estonia), whereas in other countries (e.g. the Czech Republic, Poland) sitting tenants did not enjoy any preferential conditions in the housing market (Lux, 2003b).

¹⁸ In most countries, location – one of the main factors influencing the market price of dwellings – was not considered when valuing dwellings before sale (Hegedüs *et al.*, 1996; Pichler-Milanovich, 2001). The quality of housing (especially the age and type of building, its physical condition and location) was most often considered by sitting tenants when privatisation decisions were made (Pichler-Milanovich, 2001), particularly in countries where financial resources were needed for privatisation, e.g. in Hungary (Hegedüs *et al.*, 1996; Kovacs 1998a, 1998b; Pickvance, 1997). Financial considerations (i.e. the value gap showing the difference between the privatisation price of the dwelling and its market value), security of tenure (against perceived rent increase and/or possibility of eviction) and control over maintenance (control of costs and quality and participation in the decision-making process) were mentioned as the main motivations of households in privatisation of their public rented dwelling (Daniell and Struyk, 1994; Hegedüs *et al.*, 1996; Pichler-Milanovich, 2001; Pickvance, 1997).

have substantially changed the tenure structure in all CEE countries, but due to the pace of reforms and privatisation strategy chosen, there is still a significant share of public rental stock left in some countries (especially in Poland, the Czech Republic and Latvia), whereas other countries (e.g. Southeast European countries, Estonia, Lithuania, Hungary, Slovenia) have privatised nearly the entire housing stock (Hegedüs, 2006; Lux, 2001, 2003b). This means that the assumptions made by Balchin (1996) and Clapham (1995), namely that the post-socialist countries will likely move towards a dualist rental system, with social rental housing targeted only to the most marginalised groups, have proven correct only in a subset of CEE countries.

Housing sector reforms were realised, and their objectives achieved, only partially (Lux, 2003b; Pichler-Milanovich, 2001). As expected, the outcomes of the reforms included withdrawal of public subsidies in the housing sector and the consequent substantial reduction in state expenditure on housing, but they did not lead to the formation of an effective, dynamic housing market with flexible related submarkets where public social housing would compete with non-profit housing provision or even with private investment in social housing (Lux, 2003a, 2003b). As a result, housing affordability decreased, and in countries where more extensive privatisation took place, the social housing sector became residualised, i.e. targeted only to the most marginalised groups – tenants with a low socio-economic status (Lux, 2003a, 2003b; Kovács, 1998b; Pichler-Milanovich, 2001).¹⁹ Housing reforms did not address the problem of financing new social rental housing. Responsibility for the public rental sector has shifted from the central government to local governments, which have serious budgetary constraints in developing effective housing policies (Lux, 2003a, 2003b). Supply-side subsidies as provided by the state, directed towards new affordable social rental housing construction, are low in all CEE countries²⁰. Also, the level of new housing construction has remained considerably more modest than expected. In some of the countries, state housing funds were established that channelled the budget contributions mainly to support home-ownership construction and purchase (Lux, 2003b). Several countries have introduced interest subsidies on mortgage loans, tax credits on housing

¹⁹ The residualised public rental housing also impacts socio-spatial segregation (Kovács, 1998b, 2001). For instance, remnants of the public housing sector in Budapest, Hungary, are concentrated in (a) inner-city tenement blocks built at the turn of the 20th century, and (b) high-rise housing estates built during the communist period (Kovács, 2001).

²⁰ Poland is the only CEE country applying a relatively efficient system of new non-profit rental housing construction, carried out by non-profit housing associations (Lux, 2003a, 2003b; Uchman and Adamski, 2003). In some other countries (Hungary, Slovakia, Romania), the central government has also provided grants to municipalities for establishing new social housing, but due to political instability and the absence of a clear institutional framework, this policy has remained less effective and lacks long-term security (Hegedüs, 2006; Kovács, 2001; Lux, 2003a, 2003b).

savings, or tax deductions on housing loan interest and housing purchase and construction costs (Lux, 2003a; b).

As another shortcoming of the reforms, many home-owners are unable to bear housing maintenance costs due to insufficient savings and/or access to rehabilitation loans²¹ (Pichler-Milanovich, 2001). Housing allowances, which can be part of subsistence benefits (e.g. in Estonia), have been applied in most countries, but rather than being an effective demand-side housing policy instrument, their role is limited to income maintenance for the lowest-income families²² (Lux, 2003a, 2003b).

Because of growing income disparities in Central and Eastern European countries, reduction of direct and indirect housing subsidies, and growing choice in the housing market as a result of housing privatisation and new private housing construction, the overlap between households' income and their housing situation has increased (e.g. Kovács, 1998b; Pichler-Milanovich, 2001; Sailer-Fliege, 1999; Sýkora, 1999a; Szelényi, 1996). Despite differences in implementing the housing reforms, many significant similarities can be found in the transformation of different post-socialist cities (Pichler-Milanovich, 2001). In this process of transformation of the urban residential pattern, residential mobility has been considered as a main process of adjustment (e.g. Sailer-Fliege, 1999; Sýkora 1999a, 1999b; Szelényi 1996), although mobility levels have remained very low in CEE countries throughout the post-socialist period (Geróházi and Szemző, 2006; Kok, 1999a; Mandič, 2001). Since the 1990s, dwelling prices have increased in all countries, and the disparities in dwelling prices reflecting location, accessibility, quality and the level of services have also grown (Pichler-Milanovich, 2001).

The new residential pattern as revealed in studies carried out in different post-communist countries is showing signs of increasing polarisation and segregation (e.g. Kovács, 1998b). The increase in real estate prices has been most significant in attractive city locations, e.g. in some parts of the inner city (Pichler-Milanovich, 2001). Further accelerated by the restitution process in many CEE countries (Sýkora, 2005), some of the most attractive inner-city neighbourhoods with historical value are in the process of regaining their social status – former residents with a lower social status are gradually being replaced by new residents (often foreigners) with higher incomes who are employed in

²¹ A politically very sensitive issue is the centrally controlled rent level to protect sitting tenants in many of the countries where housing restitution took place. In this case, the current rent levels do not cover the costs needed for housing maintenance, but restitutees are not able to increase rents and evict tenants in order to renovate housing.

²² There are often restrictive conditions applied in housing allowance schemes in CEE countries, i.e. implicit or explicit income ceilings (implicit ceilings are derived from the formula used for calculating housing allowance, whereas explicit ceilings are strictly set by the legislation) or explicit housing expenditure normatives. Also, the allowance schemes sometimes do not support exit from the poverty trap. Households living in the free market rental sector are usually excluded from the allowance schemes. (Lux, 2003a, 2003b.)

the advanced services sector (Kovács, 1998b; Pichler-Milanovich, 2001; Szelényi, 1996; Sýkora, 1999a; Sýkora, 1999b, 2005). Gentrification is an expression of a growing variety of possible lifestyles and housing careers. Until the end of the 1990s, gentrified areas in post-communist cities remained rather small islands amidst generally stagnated or downgraded areas (Sýkora, 2005), but the process has accelerated in the 2000s. Gentrification is followed by neighbourhood rehabilitation, and in some cases also by conversion of residential spaces into commercial or administrative spaces (Kovács, 1998b; Pichler-Milanovich, 2001; Sýkora, 2005). Old residential blocks have been transformed into luxury flats, largely due to the restitution of inner-city areas, and offices or other commercial premises and new blocks of flats have been built (Pichler-Milanovich, 2001). During reconstruction, smaller and modest flats are often joined together to form large luxurious apartments (Pichler-Milanovich, 2001; Sýkora, 2005). In some cases, new condominiums have also been built into the existing housing structures, facilitating the in-movement of affluent groups (Sýkora, 2005). The low-income households in these gentrified parts of the city who have also become home-owners can be pushed out, as they would not be able to bear the increasing costs of housing maintenance and rehabilitation (Pichler-Milanovich, 2001).

In contrast, the low-status areas of the inner cities are being burdened with a further concentration of low-income residents, and slum areas are expanding with a concomitant increase in the concentration of ethnic minorities (Kovács, 1998b; Ladányi and Szelényi, 1998; Sailer-Fliege, 1999; Sýkora, 1996) and the elderly (Enyedi, 1998). The tendency towards increasing social polarisation has been perhaps most visible in the inner cities because of the spatial selectivity of private investments (Kovács, 1998b; Sýkora, 1999b). Kovács (1998b, p. 75) remarks that many of the socio-spatial inequalities existing in Budapest have been further intensified by the post-socialist transformation, which “brought different fortunes for these neighbourhoods”, and that “ghettoization and gentrification are occurring simultaneously” in central districts.

The volumes of new housing construction remained very low in the whole CEE region until the end of the 1990s. The only significant new housing construction undertaken took the form of self-built owner-occupied one-family houses at the city periphery or low-rise multi-dwelling buildings in attractive inner-city locations (Pichler-Milanovich, 2001). New condominiums for the affluent were also built in the 1990s on unused land or former industrial and military premises (Pichler-Milanovich, 2001).

Suburbanisation started to shape landscapes of post-communist metropolitan areas in the 1990s (Kok and Kovács, 1999; Sýkora, 1999a). In some of the formerly centrally planned countries, migration from cities to rural areas in the suburban belt already started to dominate in the 1980s (Ladányi and Szelényi, 1998; Tammaru, 2001b). New residential development continued throughout the 1990s, but with a relatively low speed due to the low purchasing power of households and the ongoing housing reforms (Brown *et al.*, 2005; Pichler-

Milanovich, 2001; Sailer-Fliege, 1999; Sýkora, 1999a). Studies reveal that people migrating from cities to cheaper suburban housing were of a lower social status (Kulu and Billari, 2004, 2006; Ladanýi and Szelényi, 1998; Tammaru, 2005a). Migration to the suburbs accelerated over time, becoming one of the main migration processes in post-socialist metropolitan areas (Kok and Kovács, 1999; Ladanýi and Szelényi, 1998; Pichler-Milanovich, 2001; Sýkora, 1999a; Szelényi, 1996; Tammaru *et al.*, 2004). The growing wealth of households and improved access to mortgages at the end of the 1990s were the most important factors that speeded up the development of new residential areas in the late 1990s and 2000s (Ouředníček, 2005). Sailer-Fliege (1999) and others (Kok and Kovács, 1999; Sýkora, 1999a, 1999b; Szelényi, 1996; Sýkora and Ouředníček, 2006) argue that it is mainly the wealthiest who can afford to buy newly built housing in suburban areas, indicating that suburbanisation has led to growing socio-economic segregation in the suburbs. While suburban areas were often inhabited by groups with a lower social status during the communist period, new residential developments increasingly attract people with a higher social status (Sýkora, 1999a, 1999b; Sýkora and Ouředníček, 2006).

Scholars have not agreed on the future of social development in the socialist housing estates. Some have predicted a rapid out-migration of the wealthier population from the high-rise housing estates (e.g. Sailer, 2001; Szelényi, 1996), and refer to a serious danger of social segregation and exclusion in these large estates, further exacerbated by the local concentration of ethnic minorities (e.g. Gypsies in Hungary or Russian-speaking populations in the former Soviet Union territory) (Knorr-Siedow, 1998). Others doubt that any quick changes will occur (Berey, 1997; Maier, 1997). Yet others foresee an increasing differentiation between the estates instead of a universal social decline (Egedy, 2000; Geróházi and Szemző, 2006; Pichler-Milanovich, 2001; Sailer-Fliege, 1999; Sýkora *et al.*, 2000). More recent research (case studies from Hungary, Poland and Slovenia) has shown, however, that housing estates have very rarely become the places of extreme poverty, and are typically populated by middle-class and lower middle-class households²³ (Geróházi and Szemző, 2006). However, case studies in Hungary have also revealed some differentiation between the estates, as the estates with a higher share of condominiums and buildings owned by cooperatives in the socialist period have gained a higher status than those that included predominantly state-owned buildings, especially those built in the 1970s (Geróházi and Szemző, 2006). Two population groups were found to use the 'exit' strategy and move out from such large estates in Hungary: the very poor who experienced financial difficulties caused by relatively high maintenance costs, and those who were better off and could afford expensive properties in more attractive areas of the city (Geróházi and Szemző, 2006).

²³ These results emanate from the RESTATE (Restructuring Large-Scale Housing Estates in European Cities) project (2002–2005), financed by the EU's 5th Framework Programme (Geróházi and Szemző, 2006).

3. THE SOCIAL AND HOUSING CONTEXT IN ESTONIA

3.1. Social context

Estonia has a total population of 1.35 million (2006). Between 1991 and 2000 the whole population declined by 12.5 per cent (i.e. by almost 200,000 inhabitants), due to the out-migration of the Russian-speaking population and negative natural increase. The external migration diminished in the early 2000s, but the population has been declining because of the negative natural increase²⁴. As regards the ethnicity, there are major differences between urban and rural areas, as well as between urban centres. In total, Estonians make up two thirds (69 per cent), and Russian-speaking groups 29 per cent²⁵ of the total population.

The total urban population in Estonia accounts for two thirds of all the inhabitants (67.5 per cent). Immigration and urbanisation processes kept the larger cities growing during most of the Soviet period (Tammaru, 2001a; b). However, the 1990s were characterised by the decline of urban population (due to factors mentioned above as well as due to suburbanisation) (Tammaru *et al.*, 2004). Between 1989 and 2000 the main urban regions experienced population growth, whereas more peripheral and smaller urban regions lost population (Tammaru *et al.*, 2004). Almost one third (29 per cent) of the population in Estonia lives in the capital city of Tallinn (396,000 inhabitants in 2006), and 39 per cent live in Tallinn and Harju county, i.e. Tallinn metropolitan region (521,000 inhabitants). The urban population comprises ethnic Estonians and non-Estonians in almost equal quantities (in Tallinn there were 55 per cent of Estonians in 2000). In rural areas, ethnic Estonians make up over 90 per cent of all residents (Statistical Office of Estonia, 2006).

The deep regression of Estonian economy in the 1990s due to economic restructuring and closure of the Russian markets for Estonian production has been followed by a fast economic boom since the end of the 1990s, further influenced by joining the EU in 2004. The unemployment level increased until 2000, up to 13.6 per cent, and then started to decline, dropping to 9.7 per cent

²⁴ In Estonia the annual number of live births fell by half between the late 1980s and the early 2000s (from 25,086 in 1987 to 12,632 in 2001), and currently the birth rate is one of the lowest in Europe. For example, the current number of 63,000 persons aged 16–18 years will diminish to 27,000 by 2016 if the current trends continue. This decrease of the population has been a major challenge to education and labour in Estonia for many decades. According to demographic forecasts, a further loss of 200,000 people is expected by the year 2030 (Jauhiainen and Kährrik, 2005).

²⁵ This category includes Russians, Belarussians and Ukrainians.

by 2004. The households' incomes have experienced a steady growth²⁶. However, not all the regions and population groups have benefited equally from the economic restructuring. Regional differences in average net incomes are remarkable, i.e. incomes were 1.8 times higher in Harju county – in Tallinn and its surrounding area, compared to Jõgeva county in the eastern part of Estonia which had the lowest income level in Estonia in 2003 (Statistical Office of Estonia, 2005). The income disparities between population groups have grown rapidly. There was a 13-fold difference between the average net incomes per household member of the top tenth and the lowest income decile in 2000; it declined to a ten-fold difference in 2004 (Ministry of Social Affairs, 2005). The top income decile and the lowest one are the ones which tend to polarise the most and separate from the other groups. In 2004, EEK 1,662 (EUR 107) was considered to be the poverty threshold in Estonia, with 14 per cent of households below the threshold level (in 1998 even 32 per cent, the share has diminished since then). The risk-of-poverty rate was 19 per cent in Estonia in 2004. Income disparities in Estonia are the widest among the new EU member states, and among the widest in the EU (2004). Social welfare benefits are only paid to the most marginal population groups providing a minimal safety net (only 6 per cent of households received subsistence benefit in 2004) (Ministry of Social Affairs, 2005).

Transformational changes have affected Estonians and non-Estonians differently. The non-ethnic Estonian population is characterised by disproportionate numbers of low-skilled workers – during the 1990s, the professional status of non-Estonians has on the whole become lower: their share among legislators, senior officials, managers and professionals has diminished remarkably compared to Estonians, whereas their share in elementary occupations has increased (UNDP, 1999). In many industrial sectors, e.g., mining, energy, gas and water supply, non-Estonians and non-citizens form the overwhelming majority (UNDP, 1999). Also, the unemployment levels are higher for the non-Estonians – the unemployment gap between Estonians and non-Estonians was 9.2 percentage points in 2004²⁷ and the employment rate gap was 4.7 percentage points (Ministry of Social Affairs, 2006). Employment situation is the most difficult for those non-Estonians having no Estonian citizenship²⁸, as entrance to

²⁶ The average gross salary was EEK 2,375 (EUR 152) per month in 1995, EEK 4,907 (EUR 315) per month in 2000 and 7,287 (EUR 467) in 2004, and the average net income per household member was EEK 1,911 (EUR 123) in 1998 and EEK 3,029 (EUR 194) in 2004 (Ministry of Social Affairs, 2005).

²⁷ The most marginalised group is non-Estonians with the lowest educational qualification (with primary or lower education) within which the unemployment levels fluctuate between 20 and 30 per cent (Ministry of Social Affairs, 2006).

²⁸ Approximately 80 per cent of the population in Estonia were Estonian citizens, 6.3 per cent Russian citizens and 12.4 per cent had no citizenship; only 1.3 per cent were citizens of other countries or whose citizenship was not known in 2000 (census data, ref. in Ministry of Social Affairs, 2006).

and mobility within the labour market has some formal or informal restrictions for those groups, and who lack Estonian language abilities. One of the reasons for lower employment levels and labour market positions is also the concentration of non-Estonians in the high unemployment region of North-East of Estonia, where non-Estonians form approximately 80 per cent of population. High levels of drug abuse, HIV, and prostitution among the non-Estonian population mark other dimensions of social exclusion among this group. Ethnicity is a sensitive issue and almost no political attention was paid to it until the late 1990s (Jauhiainen and Kährik, 2005).

3.2. Housing conditions and housing market divisions

According to the census data, there were 617,400 dwellings in Estonia in 2000, of which 89 per cent was inhabited, the rest were either un-inhabited or reserved for temporary use²⁹ (Statistical Office of Estonia). The average floor area per capita was 24,7 square metres in Estonia in 2004 (21.3 square metres in Tallinn) in 2004 (Household Budget Survey 2004 data, Statistical Office of Estonia). Compared to other European countries, Estonia is well endowed with dwellings. Due to the decreasing population, the relative supply of dwellings has improved during the 1990s and 2000s. 66 per cent of housing stock is located in urban areas.

Most of the existing housing stock in Estonia was constructed during the socialist era, i.e. 73 per cent in Estonia and 82 per cent in Tallinn, 22 per cent was constructed before 1946 (15 per cent in Tallinn) and only 5 per cent has been completed after the socialist period, i.e. after 1991 (4 per cent in Tallinn). The housing construction reached its peak from the 1960s to the early 1980s when over 10 dwellings were constructed per 1,000 inhabitants annually (see Fig. 15a, b in Appendix) (Kõre *et al.*, 1996; Raudsaar *et al.*, 2006). A decline in building volumes started in the second half of the 1980s and continued throughout the 1990s. During 1995–2000, the construction rate remained at the level of 0.5–0.6 dwellings per 1,000 inhabitants, due to the ongoing reforms in the housing sector and difficulties in housing construction financing. The new construction intensified in the 2000s as a result of low mortgage rate, and an overall improvement in the economic environment (Raudsaar *et al.*, 2006).

The main building types from the pre-socialist period were stone or wooden apartment houses in cities, some family units, and farm houses in rural areas. During the socialist era, the industrial building style comprised mostly standardised large-scale apartment blocks, i.e. multi-family buildings (see Fig. 15a, b in Appendix). To a smaller extent, detached housing was built privately by

²⁹ In Tallinn, there were 172,800 dwellings, and 96 per cent of them were inhabited.

households. In the 1990s, the new housing construction consisted almost entirely of detached housing built in the suburbs of larger cities (outside administrative borders); in the 2000s, also new apartment-houses were constructed. In total, 70 per cent of households live in apartments, and the others live in (semi-)detached houses or row-houses (21 per cent), or in farm-houses (9 per cent). In urban areas, the share of households in apartments is even 83 per cent, and in Tallinn 92 per cent (Household Budget Survey 2004, Statistical Office of Estonia).

Although the number of housing units exceeds the number of households, there are many problems related to the housing supply. Firstly, there is a geographical discrepancy between the housing market and labour market, with many vacant dwellings in geographically peripheral areas, and overcrowded population centres³⁰. Secondly, large families often experience lack of living space whereas many small households occupy relatively much of the space³¹. The housing sector's biggest problems are associated with the relatively old and dilapidated dwellings, and the low level of amenities in dwellings built in the pre-socialist era^{32 33}. Many older dwellings have no indoor toilet or washing facilities, and a part of them lacks sewerage and running water. These problems

³⁰ While the overall number of dwellings exceeded that of households by 6 per cent in 2000, the number of households in Tallinn was equal with the number of dwellings. Considering that 4 per cent of dwellings were reserved for temporal use or un-inhabited, there is a lack of living space in Tallinn.

³¹ Too little living space and/or lack of rooms in dwelling is a big concern for about one tenth of households. Families with children, especially families with three or more children, face the most severe problems related to lack of living space (Household Budget Survey 2004, Statistical Office of Estonia).

³² In 2004, about 90 per cent of households had 'running' water in the house (in Tallinn, 99 per cent), the rest had to fetch it from a nearby well or spring; just about 77 per cent of households had central sewage system in their dwelling, while 10 per cent did not have any sewerage system (in Tallinn, 96 per cent had central sewerage system and the rest had a local sewerage system); running warm water is not available to approximately 22 per cent of the households (9 per cent of households in Tallinn). Toilet availability is quite poor – 19 per cent of households did not have a flush toilet in their dwelling. However a majority of those households did have a dry toilet, the toilets of 7 per cent of households were outside the dwelling (in Tallinn, 98 per cent of households had a flush toilet in their dwelling). About 24 per cent did not have either a bath or a shower at home, although a part of them had a sauna (in Tallinn 8 per cent did not have either a bath or a shower) (Household Budget Survey 2004, Statistical Office of Estonia).

³³ Despite the relatively dilapidated housing stock, only less than one tenth (8 per cent) of the households regard the condition of their dwellings as very poor. About 9 per cent of households are not satisfied with their level of housing facilities (availability of washing amenities, sewerage, etc.); the level of satisfaction is related to the age of housing (Household Budget Survey 2004, Statistical Office of Estonia; Kährik *et al.*, 2003b). Large families with 3 or more children and households with an unemployed head are especially dissatisfied with the quality of their housing facilities.

are, however, more widespread in rural areas. Soviet large-scale apartment blocks are often in lack of repair. Poor management skills, as well as differences in the financial capacities and attitudes of residents affect the maintenance of these blocks. A share of the older pre-war housing has been renovated, as certain locations of downtown areas have become gentrified, but many are still in a miserable situation.

About 93 per cent of households lived in dwellings occupied by one household, whereas 7 per cent shared their dwelling with another household (Household Budget Survey 2004 data, Statistical Office of Estonia). The reasons for two or more households living in one dwelling are partly economical, but partly related to social circumstances, e.g. the need to take care of elderly family members. The absence of separate housing was a very big concern for 4 per cent of households (in Tallinn for even 9 per cent) (Household Budget Survey 2004, Statistical Office of Estonia).

The tenure structure has changed significantly after the implementation of the housing ownership reform. The share of public housing stock declined from 60.5 per cent in 1992 to 4 per cent in 2005 when 1.2 per cent belonged to the state and 2.8 per cent to local governments. About 4 per cent of the housing stock belonged to cooperatives in 2000 (5 per cent in 1992). 84 per cent of all households were home-owners in 2004, incl. those living in co-operatives, and the share of tenants was 16 per cent, incl. private tenants of about 12 per cent (Household Budget Survey 2004, Statistical Office of Estonia). Due to these tenure transformations the rental sector has become dual – the public housing supply consists of the low-rent residual of privatisation, as well as some newly constructed buildings (mainly in Tallinn³⁴) with higher rents, both targeted on rather marginal population groups; the private rental market is then the only option for those who have to or prefer to opt for an alternative to home-ownership, but only for those who can afford it.

³⁴ In 2002, the municipality of Tallinn approved a housing programme which aimed to construct 2,000 new municipal dwellings, and to renovate a part of the existing municipal housing stock during 2002–2007. The largest target group for these new and renovated apartments is tenants who live in restituted housing. Until mid-2006 approximately 50 per cent of the planned new constructions have been completed, whereas the number of tenants in restituted housing who are in the waiting list for municipal housing has diminished from 3,349 in January 2001 to 1,904 in June 2006 (Tallinn City Government, personal communication in 2006).

3.3. Housing policy context³⁵

The financing, construction and allocation of housing in the socialist Estonia was subordinated to central planning. Soviet enterprises and ministries also played an important role in housing allocation (Tammaru, 2001a). The large majority of housing stock was state-owned, and the private housing construction was modest (Kõre *et al.*, 1996; Pihlak, 1994). The advantaged groups in the central housing allocation system were those belonging to the ‘nomenclature’, i.e. those in higher level or favoured occupations (Kährrik, 2000; Org, 1989). In addition to social capital, human capital also mattered as people with a university degree enjoyed the best housing conditions (Gentile and Tammaru, 2006; Kulu, 2003). The pre-Soviet housing stock suffered from lack of maintenance and was inhabited mostly by people with lower social status, except the well-equipped higher quality units. Housing market segregation existed by all major population characteristics, including age, education and ethnic origin (Gentile and Tammaru, 2006; Kulu, 2003; Org, 1989; Raitviir, 1990).

Housing restitution and privatisation programmes launched in the early 1990s had the most significant impact on housing sector developments in Estonia, and on creating a basis for the housing market development. The principles of housing restitution and privatisation were stipulated in the Principles of Ownership Reform Act (adopted in 1991) and the Privatisation Act (adopted in 1993). The purpose of the ownership reform was to restructure ownership relations in order to ensure the inviolability of property, to undo the injustices caused by the violation of the right of ownership, and to create the preconditions for the transfer to a market economy. In the course of the ownership reform, property in state ownership was transferred without charge into municipal ownership (the municipalisation of property) and after that transferred into private ownership (the privatisation of property) (Kährrik *et al.*, 2003a).

The goal of housing restitution was to return or to compensate for the illegally expropriated property to their former pre-WW II owners or their legal successors³⁶. Rental contracts in force at the time of the return of a residential building were deemed to be valid for a certain period (which was extended after the set deadlines expired), and even in 2006 the owners have no right to evict tenants if they have paid rent and respected other contractual agreements³⁷.

³⁵ This section is largely based on Kährrik *et al.* (2003a).

³⁶ Dwellings returned to legal owners or their successors accounted for about 2.6 per cent of the total dwelling stock in Estonia. Approximately 22,500 households lived in those dwellings, and about half of them lived in the capital city of Tallinn (Eesti Konjunkturiinstituut, 1998).

³⁷ Tenants in restituted housing were protected against the increase of rents by the central government for a limited time period (for 5+3+3 years), when the fixed rent level was applied to these tenancies. After this period the rent level is set free. In case of most tenancies the transition to the market rent takes place during 2007–2008.

Tenants living in restituted residential buildings are entitled either to receive a new rental dwelling or to apply for a loan or grant from the state or local government for resettlement or for the purchase of a dwelling. For those who need it, local governments must provide a dwelling that is located in the same municipality and is comparable to the tenant's previous, i.e. restituted, dwelling in quality and size³⁸.

Housing privatisation, launched in 1994³⁹, was carried out on extremely favourable terms for tenants. All municipal tenants who did not occupy restituted housing had the right to buy their rental dwellings. By law, local authorities could also restrict the privatisation, i.e. by selecting dwellings not designated for privatisation. Yet, in reality the pressure for privatisation was so strong and the governments' resources so limited that they seldom used that right. For the most part, the purchase of apartments occurred through public capital vouchers, i.e. the privatisation checks (EVPs⁴⁰). Privatisation was restricted for households that did not have enough EVPs, but they formed only a marginal group of tenants. In the case of property that was not restituted nor privatised to the sitting tenants, the sale occurred in the form of a public auction.

The housing market that started to develop after 1995 was a new phenomenon in Estonia, with substantially different allocation principles from the former system. The housing prices, rent level and maintenance costs, which used to be greatly subsidised, were gradually liberalised, and started to reflect market prices. As most of the households live in the owner-occupied sector,

³⁸ The Housing Act states that if it is impossible for a local government to provide such a dwelling, the state must provide means for the purchase or construction of such dwellings for local governments. In reality, due to the lack of initiative from both central and local governments, the supply of such dwellings still does not meet the demand, and the housing problem of many tenants in restituted housing remains still unsolved.

³⁹ Housing privatisation to sitting tenants lasted until June 2001.

⁴⁰ All individuals permanently living and working in Estonia were entitled to EVPs that were distributed on the basis of the length of time worked in the Soviet Estonia; one year was made equal to EVP 300. The privatisation price for dwellings was calculated by the price difference between a particular dwelling and the so called 'standard dwelling' – an apartment in a nine-story prefabricated panel building – for which the fixed privatisation price was applied. In the 'standard dwelling,' one square meter was equal to one working year or EVP 300. The amortisation state of a dwelling, the state of maintenance and location were to some extent also taken into account in calculating the final privatisation price of a dwelling. For instance, as an average working period for a pensioner in the Soviet Estonia was 40 years, a pensioner could usually privatise a two-room apartment for his/her EVPs. EVPs could be freely purchased and sold in the market. Dwellings could be also sold for money or traded for the vouchers issued for the compensation of illegally expropriated property and the employment shares issued to collective farm workers. The direct financial costs, i.e. in terms of money, of privatisation for tenants were low and consisted mainly of legal fees for the transaction (which did not exceed one per cent of the total value of the transaction) (Kährik *et al.*, 2003).

they only have to cope with the increasing maintenance costs⁴¹. Those households with a lower level of resources who have to start their independent housing career are in the most difficult situation, as the real estate prices have rapidly increased, and rent level in the market is not affordable for many.

As regards the basic social rights, the Estonian Constitution is based on the minimum concept of rights. The constitution of Estonia does not directly stipulate everyone's right to housing. The right to housing (right to state assistance in case of need) is realised through mechanisms set in place under the Social Welfare Act (1995) (Kährik *et al.*, 2003). These include (Kährik *et al.*, 2003a):

- The right to apply for social housing from the local government in case the person or family is not able to ensure it for themselves; and
- The right to receive inevitable social assistance, which also includes the opportunity to use temporary shelter.

As a result of the ownership reform, municipalities have only a minimal supply of affordable social rental dwellings, assigned to the most 'needy' vulnerable groups. Normally, public housing is not meant just for low-income families, but for disabled groups, those who have accidentally lost their home, and other strictly targeted groups. There is no central control over the rent level, and in the private rental market rent levels are set freely on the market basis. Local governments apply subsidised upper rent levels for the municipal housing⁴². In the municipal rental housing sector, the rent level does not often cover the costs of housing maintenance, which means that municipalities subsidise a rent or defer necessary expenditures on housing (due to the insolvency of municipal housing clients). The lack of investments in municipal housing has led to the deterioration of public housing stock. In the new municipal buildings, and in the renovated buildings higher rent levels are normally applied, but this means that these properties remain unaffordable for a share of needy families⁴³. The need for affordable social housing of low-income groups exceeds the existing supply, especially in the main cities. There is a state subsidy to the extent of 50 per cent

⁴¹ For the management and maintenance of multi-apartment buildings, apartment-owners' associations have been established as non-profit organisations. Among other housing management duties they are responsible for the maintenance of the common spaces of buildings, and the land that belongs to the building(s); they represent the interests of apartment owners. All apartment owners within one building/ several buildings are the members of the apartment-owners' association.

⁴² I. e., in case of new municipal housing in Tallinn the upper rent limit of 20 EEK (1.3 EUR) per square meter, and 10–15 EEK (approx. 0.6–1 EUR) per square meter in case of older housing is applied by the local government.

⁴³ In Tallinn, there is also the so called transitory social housing for those who cannot afford to pay the relatively high rents in new municipal flats. This accommodation is a low-rent dormitory type of housing, where rooms are shared commonly by several social clients.

of the total housing construction costs for municipalities to provide new or renovated housing for tenants in restituted housing.

The right to housing, i.e. right to state assistance in the case of need, is also realised through direct support to users of housing in case they lack resources: home-owners as well as tenants⁴⁴ can apply for subsistence benefit covering the housing rent to some extent, utilities' expenses, and smaller maintenance services to the extent of the socially justified standard in case a person's own resources do not enable him to cover the costs needed. The housing expenditure ceilings that are covered by the benefit are set by local governments. The benefit is payable to those households whose net monthly income, after subtracting housing expenses, remains below the subsistence level established by the central government^{45 46}. In total 11 per cent of households received this benefit in Estonia in 2000, but only 6 per cent in 2004 (administrative data, Ministry of Social Affairs).

Tenants living in restituted housing are entitled to several support schemes, which still remain insufficient to solve the housing problems of this group. For instance, in some municipalities so called sitting tenants can apply for financial support for resettlement or for the purchase of the dwelling they occupy if agreed with the landowner. The other incentives are mostly not targeted on the poorest in the society, but to the average income or wealthier population – those who buy a dwelling with a loan. Access to home-ownership is facilitated by the tax policy⁴⁷, and special groups (e.g. young families) receive some advantages in receiving housing loans from commercial banks⁴⁸.

⁴⁴ In reality, due to the existence of the black rental market, and owners' unwillingness to verify the actual housing costs a share of private sector tenants has no access to this allowance. Also, certain housing expenses, like the required regular payments into the building's renovation fund, are today not included in the list of housing expenses covered by the benefit (this can lead to growth in payment debts for low-income households and finally to their eviction).

⁴⁵ In 2006, the subsistence level was EEK 750 (EUR 48) per the first member of the family, and EEK 600 (EUR 39) per each following household member.

⁴⁶ During 1994–1996, a specific housing allowance was applied by the state to compensate the housing expenses for low-income families. The state compensated for those housing costs that fell within the standard allotted living space and exceeded about one-third of a family's income. This allowance was accompanied by the subsistence benefit, paid to persons whose monthly income was below the subsistence level. Both allowances were granted and paid on a monthly basis by local governments from the funds of the state budget allocated for this purpose. Tallinn municipality exceptionally continued to pay this housing allowance until 1997.

⁴⁷ The income from housing sale is not taxed (in case the housing was used for living by the same person, or it was restituted to him), the interest on housing loans is permitted to be subtracted from the taxable income.

⁴⁸ State guarantees are provided to commercial loans for special target groups – tenants in restituted houses, young families with at least one child, and specialists under 35 years with a higher or a vocational education.

4. MAIN RESULTS FROM THE STUDIES

4.1. Data and research methods

The data used for analysis in the empirical studies were derived from the databases of national surveys as well as two other surveys. The national surveys carried out by the Statistical Office of Estonia were the Estonian Labour Force Survey (ELFS) 1995, 1997, 1998 and 1999, and the Household Panel Survey 2004. The two special surveys were “Tartu and its inhabitants 1998”, carried out jointly by the University of Tartu and Tartu City Government, and the New Residential Areas Survey (2006), carried out jointly by the University of Tartu and Emor Ltd. The fourth study presented in the thesis is based on a pooled database derived from the Household Panel Survey 2004 and the New Residential Areas Survey (2006). All the surveys were carried out using quantitative methodology, and the results are representative of either the whole Estonian population or specific subpopulations, i.e. the residents of Tartu or the residents of the new suburbs in the Tallinn metropolitan region.

The housing segments used as units for analysis were defined on the basis of (a) the type of housing and the availability of basic housing facilities, and (b) the form of tenure. A dwelling without all facilities was defined as a house or flat lacking one of the following: hot water, washing facilities, sewerage or electricity. The variable of city district was included in the ELFS 1999 database – this was used as a unit of analysis in one study. Altogether there are eight administrative city districts in Tallinn (Figs. 1 and 2 in Appendix). The largest was Lasnamäe with 114,000 inhabitants, and the smallest Pirita with 10,000 inhabitants. Other districts had a population within the range of 31,000 – 68,000. Only in some districts did a small sample of only 40–50 respondents limit the depth of our analysis. When using such a large scale of the districts there is a risk of overlooking the internal differentiation and some ‘natural borders’ within the districts. In order to gain an insight into the residential pattern existing within the more heterogeneous city districts, we also carried out analyses of residential differentiation between housing types. Socio-economic differentiation was analysed using variables on income, occupational status, and educational groups. Ethnic differentiation was analysed using two residential groups – Estonians and non-Estonians.

The level of socio-economic and ethnic segregation was analysed by performing an index calculation. As one method for analysis I have used time series for the index of segmentation/ segregation. This measures the extent to which a specific sub-group has a similar distribution to the spatial (or housing market segment) distribution of the total population. The index of segmentation or

segregation (IS) is related to the index of dissimilarity (ID)⁴⁹, and has been regarded as the most satisfactory overall measure of unevenness of residential distribution (Duncan and Duncan, 1955, ref. in Peach, 1996; Lindberg and Lindén, 1986). The scale of the index values extends from 0 to 100, where zero means that there is no segregation and 100 means that there is a complete segregation. In calculating the average index for all the social groups, the index of each social group is weighted by the relative size of these groups. The ID and IS are calculated as the following:

$$ID_{XY} = \frac{\sum (|X_i - Y_i|)}{2}$$

Where ID_{XY} = the index of dissimilarity; X_i = the percentage of the X population in the i th area; and Y_i = the percentage of the Y population in the i th area.

$$IS_{XY} = \frac{ID_{XY}}{1 - \frac{\sum Y_i}{\sum X_i}}$$

Where ID_{XY} = the index of dissimilarity between the total population X and the subgroup Y; $\sum Y_i$ = the total number of the subgroup Y in the city; and $\sum X_i$ = the total population of the city.

The IS should be treated with caution in situations where the minority numbers for whom the index is calculated are very small or where numbers begin to approach the number of area units over which the index is calculated (Peach, 1996, p. 218). Interpreting these results, two important issues should be considered. First, the study was based on very broad housing categories. Higher segmentation indexes would probably have appeared if the study had been based on narrower housing categories. Secondly, the observed time-span of only half a decade makes it somewhat difficult to discern longer-term trends. However, at the moment the ELFS database has been the only available source for observing changes in residential divisions over the transformation period in the 1990s⁵⁰.

⁴⁹ The ID provides a measure of the similarity in the spatial distribution of two subgroups of the population. The values of ID can be interpreted as the percentage of one group which would have to shift its area of residence in order to achieve an identical distribution with the group with which it is being compared[0].

⁵⁰ Moreover, the ELFS database from 1999 (except the Census 2000 database which does not include income-data) is the only national source available that includes data on city district level for Tallinn. This variable has disappeared in the later databases for public use, due to the strengthening of privacy protection measures.

The equation for calculating the over- and under-representation rates (called the spatial differentiation index) is presented in Ruoppila and Kährrik (2003). The location quotient is the spatial differentiation index/100. The spatial differentiation index measures the relative differentiation of representation of social groups in an area as compared to the average representation of the group in the whole city. Firstly, we calculated the relative representation percentages (d_{sk}) compared to the average in the city. Secondly, the indicator of socio-economic status of population (later called the socio-economic index) (D_k) based on income, occupation and education was calculated to show the balance between the 'upper' and 'lower' social groups in a city district and a housing type compared to the city average.

The binary logistic regression analysis is used in the fourth study to assess the differences between the three research populations — people living in Tallinn, in old (pre-1991) and in new (post-1991) suburban settlements. Logistic regression identifies variables which predict whether a person is likely to belong to a particular research population (e.g. whether he/she is likely to move to a new suburban residential area or stay in Tallinn). For this analysis we recoded certain selected population characteristics into a limited number of categories, in order to be able to compare the three research populations. In the binary logistic regression analysis residential characteristics are being compared in pairs, whereas one residential category needs to be selected as a reference category. On the one hand, it measures the differentiation between two research populations, and on the other hand, it determines the odds of particular population categories of being represented in the study group. The logistic regression model can be formalised as follows:

$$\log \frac{p(Y_i = 1)}{p(Y_i = 0)} = \alpha + \sum_{k=1}^K \beta_k X_{i,k}$$

where $p(Y_i = 1)$ is the probability that an individual $i = 1, \dots, I$ belongs to a specific research population (e.g. lives in a new suburban settlement); $p(Y_i = 0)$ is the probability that an individual $i = 1, \dots, I$ belongs to a reference group (e.g. lives in Tallinn); α is a constant; $X_{i,k}$ is the value of variable k for individual i ; and β_k is a parameter describing the impact of variable k , with K variables.

4.2. Aims of the studies and research questions

The general aims and research questions for the current PhD research have been mentioned in the introduction. The more specific aims and research questions asked in different papers are as follows. The first paper examined the social consequences of housing privatisation, with a particular focus on the impact on social inequalities. The main research question was: are there signs of deprived opportunities for some social groups, as well as inequalities in the housing sector due to housing privatisation?

The second paper aimed analysed changes that had taken place in the division of socio-economic and ethnic groups between housing market segments in Tallinn, the capital of Estonia, during 1995–1999. Besides exploring the main changes in residential pattern, the article discussed the causes of these changes. The main research questions were: What have been the main factors leading to changes in the division of residential groups between housing market segments in Tallinn during the transformation period (1995–1999)? What kinds of changes have taken place in the division of residential groups between housing market segments in Tallinn during this period?

The third paper analysed the pattern of residential differentiation in Tallinn, the capital of Estonia, in 1999. In addition, it explored the relation between residential mobility and residential differentiation. The main research questions were: What kind of pattern of socio-economic residential differentiation there was in Tallinn in 1999? What has been the role of residential mobility during the 1990s in contributing to this residential pattern?

The aim of the fourth paper was to examine the characteristics of residents in new suburban settlements in the Tallinn metropolitan area, Estonia, by analysing both the selectivity of suburbanisation with regard to the origin population (residents of Tallinn) and the effect of suburbanisers on the destination (suburban) population. We were particularly interested in how the evolution of these new settlements influences residential differentiation in a metropolitan area of a country that has gone through a profound political, economic and social transformation.

4.3. Main factors leading to the transformation of the socio-spatial residential segregation pattern in the Tallinn region

All the main pre-conditions for residential segregation to increase (Dangschat, 1987; Lee and Murie, 1999; Smith, 1996; van Kempen *et al.*, 2000), i.e. increasing social disparities, the diminished public intervention by housing and social policy means, including housing privatisation, the increasing differentiation within the housing stock and competition for certain types of housing, and an

increasing role of subjective housing market choices have characterised urban development in Tallinn region in the post-socialist era. The transition to market economy, accompanied by the process of economic restructuring, has transformed social stratification orders, increased the gap between the rich and the poor⁵¹, and expanded economically disadvantaged groups in Tallinn as well as in the rest of Estonia (Ministry of Social Affairs, 2005; Statistical Office of Estonia, 2001; UNDP, 1999). The growing social disparities and changed social stratification orders have increased the visibility of the previous existing latent social segregation pattern in cities (by education, age and ethnic origin) (Gentile and Tammaru, 2006; Kulu, 2003; Org, 1989; Raitviir, 1990), as well as changed the residential pattern due to selective residential mobility.

As regards housing stock differentiation, the main broad divisions to mark the differing quality of the housing types in Tallinn and its surrounding region can be drawn between (predominantly pre-socialist) apartments with a low level of facilities, apartments containing all the facilities (i.e. mostly apartments in Soviet-era apartment-blocks), and detached housing units – single- and two-family houses, row houses and farm houses, equipped with either partial or full facilities⁵². A correlation exists between these housing types and their spatial location (Fig. 2 in Appendix). Some residential districts in Tallinn have a relatively homogeneous housing pattern whereas others exhibit rather a mixture of different types (Ruoppila and Kährik, 2003). The new housing construction since the 1990s has had a minor impact on housing divisions in Tallinn city, as it has shaped mostly the landscape in suburbs in Tallinn metropolitan region. The new houses built in the 1990s were mostly single-family units, spacious and well equipped with all the facilities. The new apartment-housing construction intensified in the 2000s, when new apartments were built in Tallinn, as well as its suburbs (Kährik and Tammaru, forthcoming).

⁵¹ In average (see section 3.1) the top and the lowest income deciles are particularly separated from the other income groups; an especially marked difference characterises the top two income deciles from the rest of the population in Tallinn. In Tallinn, the inter-decile ratio of net monthly income per household member (the ratio between the income of the lowest and the highest decile) was 13, and half of the population's net income went to the top two deciles in 1999 (Estonian Labour Force Survey 1999, Statistical Office of Estonia).

⁵² A dwelling without facilities is a house or a flat lacking one or more of the following facilities – hot water, washing facilities, sewerage or electricity. The level of basic facilities is related to the period of construction and the originally intended user group of the building. In general, all flats constructed since the 1960s, and older houses made out of stone and located in the central city have all the basic facilities. Flats that are lacking facilities are abundant in wooden tenement houses, mostly in the old pre-WWII housing areas, but also in the 1950s' housing units built predominantly for blue-collar workers. In the case of self-built detached housing, the presence of all facilities was regarded as self-evident for dwellings constructed since around the 1970s.

In the socialist era, the new apartments in Soviet blocks were in high demand due to a very limited housing choice and high state-subsidies on public housing. The single-family housing self-built by households could be regarded more as an ‘exit’ option from the state controlled housing system for some households, i.e. for those who did not receive state allocated housing (Hegedüs and Tosics, 1996). The emerging housing market in the 1990s opened up more housing opportunities.

As explained in section 3.3, Estonian housing policy can be labelled as a very liberal one in the post-socialist era. Housing privatisation and the restitution reform paved way for the market distribution of housing^{53 54} (Kährrik, 2000; Kährrik *et al.*, 2003a). Sitting tenants in public housing became mostly homeowners, and the private rental market was created on the basis of restituted dwellings. In addition, some of the privatised housing units have also been rented out later on. Only a negligible share of dwellings remained in public ownership. The share of privately owned dwellings rose from 25 to 94 per cent during 1993–2000 in Tallinn (Living Conditions, 2000; Tallinna Linnavalitsus, 1992).

A distinctive feature of the Estonian privatisation strategy was that households’ financial resources did not affect their ability to privatise. Those who occupied the best housing segments had the most to gain – they were the principal winners of the housing reform (see also Kovács, 1998a for similarities with Hungary). As housing of good quality was in many cases occupied by the so-called ‘nomenclature’ (those in higher level or favoured occupations, see section 2.4) during the Soviet period, this group continued to benefit from the privatisation (Kährrik, 2000; see also Bodnár, 1996; Daniell and Struyk, 1994; Marcuse, 1996 for similarities with other CEE countries). The greatest inequality relates to the benefits to those sitting tenants with the opportunity to privatise or those who got their property back, and those public tenants who were deprived of the right to privatise because of the restitution of the dwelling. In many cases, these tenants suffer emotionally when being compelled to move

⁵³ The main objectives of the ownership reform were achieved by the year 2000 – ownership relations became restructured as well as the responsibilities regarding housing renovation and maintenance; the injustices caused by the Soviet regime concerning the violation of the right of ownership have been mitigated to some extent; and a private housing market, designed to operate on a free market basis, has been created (Kährrik, 2000).

⁵⁴ The households’ high motives to privatise were due to a) extremely favorable privatisation conditions, and b) a wish to acquire more control over housing maintenance, management, and bequeathing by households. Additionally, residents perceived more uncertainties and insecurity related to the public rental sector in the future (Kährrik, 2000).

out from their homes⁵⁵. Young generations, by contrast, had nothing to privatise and they have to pay the market price for entering the housing market.

Direct and indirect housing subsidies during the Soviet era were replaced by housing allowances in 1994 and subsistence benefit from 1997, which apply both to poor tenants and poor owner-occupants (see section 3.3). However, only 6 per cent of the households received these allowances in Tallinn in 1999 (Estonian Labour Force Survey 1999, Statistical Office of Estonia). The state practically withdrew from the maintenance of the housing stock after the housing ownership reform. This has created an immense burden to those low-income families who became owners in dwellings located in old deteriorated houses, as well as to those living in large housing estates.

Greater disparities in the housing market can arise from growing socio-economic disparities within the existing residential pattern, but also from selective residential mobility. In the literature on residential differentiation in post-socialist cities (e.g. Kovács, 1998b; Sailer-Fliege, 1999; Szelényi, 1996), residential mobility is usually presented as a major process behind the modification of the spatial distribution of social groups. It is reasonable to assume that affluent households have been the first to take advantage of the new opportunities in the housing market. At the same time, pressure has increased on the poor to adapt the size and location of their dwelling to what they can afford. Suburbanisation has been considered as one of the main residential mobility processes in post-socialist cities (Kok and Kovács, 1999; Ouředníček, 2005; Sýkora, 1999a; 1999b; Szelényi, 1996). Two residential processes have characterised the moves to suburbs in the post-socialist period: firstly, the migration to the existing suburban dwellings, and secondly, to the new suburban housing. With different impact on residential segregation pattern, the grounds for these moves seem to differ. Whereas the existing housing units in Tallinn suburban areas are often with lower level of facilities which means a lower level of housing expenses, these moves can be generated by the economic difficulties of households rather than their improved economic situation. New housing units built since 1991 are, on the contrary, of good quality and with all the facilities, and affordable only to the most affluent.

⁵⁵ Occasionally, a purchase is made possible by an agreement with the owner on free market bases. A part of owners of restituted dwellings plans to end existing contracts, so they can renovate a house and rent it out in the market. Therefore, many tenants in restituted houses can neither continue as tenants with a new landlord nor purchase the same dwelling.

4.4. Transformation of the pattern of socio-spatial residential segregation in the Tallinn metropolitan area

Over the years of the transformation period, changes in socio-economic composition across housing quality sub-markets in Tallinn have shown a very slow but steady trend towards a more segmented housing market. The residential pattern of the socialist city where housing distribution was commonly not related to households' income is now being replaced by a more market-based distribution, where housing market positions reflect the socio-economic status of households. The well-off occupy more frequently higher-standard and more desirable housing units, whereas low-income households are increasingly trapped into cheaper low-quality apartments. The overall change in segmentation index (IS) based on households' income situation has increased from 1.9 to 6.4 during 1995–1999 (Kährik, 2002).

The clearest differentiation pattern appears in the segment of 'flats with a low level of facilities' where the relatively equal distribution of groups in 1995 had been replaced by significant differentiation in 1999 – in 1999 18.4 per cent of the lowest quartile groups and 7.1 per cent of the highest income quartile groups resided in this segment. The over-representation of low-income families was 139 per cent, i.e. the location quotient being 1.4, in the low-quality flats. As another remarkable difference, we see that high-income groups are over-represented in the 'detached housing with all facilities' housing segment (location quotient 1.7). When comparing residential districts of the city of Tallinn, the results are confirmed – we find the highest representation of low-income groups and workers in the district of Northern Tallinn, where lower-quality housing units are clearly over-represented. We can also notice some over-representation of high-income and well-educated groups, as well as of executives and professionals in the detached housing areas Nõmme and Pirita. Interestingly, Pirita, established mostly during the socialist period, appears to have a rather polarised pattern – both high-income groups and low-income groups reside in this district, which is a clear indication of the continuities of the Soviet structures, when the construction of single-family houses was not as a rule related to families' socio-economic status. Such a polarised residential pattern is also characteristic of Central Tallinn as regards educational status⁵⁶ (Ruoppila and Kährik, 2003). (See Table 1 and Fig. 3–14 in Appendix for some social indicators and illustrative photos in Tallinn eight city districts.)

An interesting picture emerges when analysing the residential pattern in Soviet high-rise estates. In earlier literature about high-rise estates, different

⁵⁶ The explanation here rather relates to the differentiated housing structures in Central Tallinn. This administrative district comprises a relatively large area where low-quality deteriorating housing, as well as highly valued apartments with all the amenities can be found. On this reason, but also because of rapid urban developments in the centre, the residential structures have a more polarised character.

scenarios have been proposed as to what can happen with these estates in the future. Some argue that they would probably keep their mixed social structure (Egedy, 2000; Sailer-Fliege, 1999), whereas others have predicted a rapid social and physical decline for these estates (e.g. Szelényi, 1996). In fact, significant differences appeared between the large housing estates in Tallinn in 1999. Haabersti, which was the most prestigious housing estate in the socialist period, showed an over-representation of high-income and high-education groups. Lasnamäe, the largest estate, showed a higher representation of workers and middle-income groups, whereas Mustamäe, the third large estate in Tallinn, was placed somewhere in between those two other estates as regards its residential structures (Ruoppila and Kährik, 2003).

As regards residential mobility, our results indeed verify higher mobility rates for two extremes – the most and the least affluent income groups – compared to the middle-income groups. Not surprisingly, as a result of the moves, we found an increasing share of high-income households in good-quality detached housing and of low-income households in less well equipped flats. But what has happened to the middle strata, or even the majority of the population, is not clear. For the middle strata, the opportunities, the pressures, and perhaps also the need to distinguish themselves socially with respect to the location of one's residence are less pronounced. Dramatic changes in their spatial distribution are not likely in the near future, which will also support the continuity of the heterogeneous socio-spatial pattern (Ruoppila and Kährik, 2003).

When comparing ethnic groups – Estonians with non-Estonians – with regard to their place of residence, we can conclude that Estonian households were significantly over-represented in detached housing units in 1995, and this tendency has persisted throughout the years of transition. The vast majority of non-Estonians live in high-rise estates, i.e. according to our classification in 'flats with all the facilities', but during the transition an increasing share of them has moved to lower-quality flats. This can be an indication of worsening living conditions for non-Estonian families, but further studies need to make it clear whether the changing pattern is a steady trend, and what are the exact reasons behind it. At least now it seems that the segmentation indexes over the 1995–1999 period have not deepened for ethnic groups, and that due to more non-Estonian families represented in lower-quality flats some levelling off of differences takes place instead (Kährik, 2002).

Relating to large-scale privatisation and restitution changes in social divisions across housing tenures are also interesting to look at. But the 1995–1999 period has rather shown a decreasing segmentation index as regards the socio-economic differentiation between rental and ownership sectors. We see quite an equal distribution of income-groups between these two tenures in 1999, whereas in 1995 the higher-income group was over-represented in the home-owners' sector. This is probably an indication of a more polarising rental market, comprising relatively high rents in private rental segment, and moderate rents in

public rental stock, and the entering of a new generation in the rental market, among whom there are also higher-income groups. Due to the housing privatisation reform, the owner-occupied sector consists of a great mix of socio-economic groups. As a remarkable difference, non-Estonian households were in more favourable positions in this ownership transformation process, as they could mostly privatise their apartments in housing estates. Estonians, on the other hand, more often lived in pre-war old housing units that were restituted. Therefore, a larger share of Estonians are now tenants in private housing – 21 per cent of Estonian families and 7 per cent of non-Estonian families were tenants in 1999 (Kährrik, 2002).

In spite of the above-described changes in the residential pattern, it must be concluded that the overall differentiation between socio-economic groups in the housing market situations is still mixed, and there is no clear correlation of the type of housing or residential district and the socio-economic status of households. Rather, the results suggest the development of pockets of wealth and poverty within an otherwise mixed socio-spatial pattern in Tallinn.

From these analysis we can conclude that residential distribution in today's housing market is still to a large extent influenced by the socialist housing provision and housing allocation principles, including the 'exit' option chosen by those who could not get new housing from the state system. The majority of population, comprising all socio-economic categories, occupy large housing estates. As immigrants from Russia and other parts of the former USSR were usually privileged in new state housing allocation, the non-Estonian population is still concentrated in this housing segment. Estonians have remained the dominant group in pre-socialist apartments, often lacking elementary housing facilities, and in detached housing units in low-rise housing districts.

The next paragraph will summarise the results of the research on residents' mobility to the newly built settlements in the suburban areas of Tallinn⁵⁷, and its impact on residential segregation in the Tallinn metropolitan area. The previous studies on suburbanisers from Tallinn to the hinterland in the 1990s confirmed their relatively lower socio-economic status as compared to residents in Tallinn (Kulu and Billari, 2004; 2006; Tammaru, 2005a). This suburbanisation comprised moves to the existing apartments or single-family units, which were often of relatively lower standard, i.e. consisted less facilities, as compared to dwellings in Tallinn. Our study also revealed that lower-educated groups were over-represented in the pre-1991 housing of Tallinn suburban region (Kährrik and Tammaru, forthcoming). This tendency, however, does not relate to a lower income of resident groups in pre-1991 suburbs. Also, Estonian households were clearly over-represented in this housing segment.

But the picture changes completely when studying socio-spatial residential structures in the new suburban areas, and comparing their residents'

⁵⁷ The suburban areas are defined here as the 50 km belt surrounding Tallinn city, which comprises most of the hinterland of the capital city.

characteristics with pre-1991 housing settlements in suburbs and with the resident characteristics' in Tallinn core city. People living in new suburban settlements built since 1991 enjoy better living conditions than the inhabitants of Tallinn and those living in older suburban settlements. As regards socio-economic characteristics, our analysis strongly confirms the earlier findings in other CEE countries that people who belong to the highest income deciles and are well educated take advantage of the new housing development, which is in contrast to the pre-transition period (see also Ladányi and Szelényi, 1998 for comparison with Hungary). The most affluent people are considerably more likely to move to the new suburban settlements compared to the other income groups (i.e. households with high income have 9 times higher odds to move to this housing segment compared to the low-income groups), while people with primary education are the least likely to make such a move. Due to improved mortgage conditions and more extensive new housing construction, we expected that housing opportunities in new suburban areas have broadened for more diverse population categories by income in the 2000s compared to the 1990s, but our findings did not confirm this – the in-migrants in the 2000s tend to earn even higher incomes as compared to the earlier movers (Kährik and Tammaru, forthcoming).

As regards demographic characteristics, a significant and unexpected result relates to the very young age of the people living in the new suburban settlements or the most expensive part of the housing stock — the odds of living in those dwellings are the highest for people younger than 35 who are about to start their housing career. The results come as a surprise as young people were not able to take advantage of the housing privatisation process that favored sitting tenants. Our findings indicate that this serves as an advantage rather than disadvantage in contemporary Estonia. Young people take the risk and move directly to the most desirable housing stock. While having a child does not elevate the odds to leave from Tallinn to the new suburban settlements, having a child is a significant factor in the suburbanisation in the 2000s compared to the 1990s. In addition to age, significant differences exist in suburbanisation also by ethnic origin. Compared to Estonians, ethnic minorities are significantly less likely to move from Tallinn to the new suburban residential areas.

4.5. Conclusions from the studies

The literature is in broad agreement that residential differentiation has increased in post-socialist cities and that the former, relatively heterogeneous spatial distribution of social groups (Smith, 1996) has started to change. Like in other Central and Eastern European countries, expanded income disparities, the diminished role of the state in welfare redistribution, including the housing sector, the large-scale housing privatisation and restitution programmes, and

new housing construction, have led to an increased correlation of households' housing position with their financial resources in the capital city of Estonia, Tallinn.

However, despite the rapidly expanded income disparities and the liberalisation of the housing market, the city of Tallinn was still characterised by low socio-economic differentiation between the broad-scale eight city districts and different housing type sub-markets in 1999. Rather, small pockets of wealth and poverty existed within the otherwise socio-economically mixed housing areas. This refers to the continuity of socialist legacies, and to relatively slow introduction of market distribution structures in the housing market. In addition, it is the residents' mind structures, i.e. their attitudes, preferences and values, that are shaped by pre-socialist and socialist systems, and prevent households from making new choices and apply behaviours that would fit better with the rules of the new system. The transformation so far (or at least until 1999) has been too short period of time for a socio-spatial pattern to change dramatically.

The reproduction of the past legacy was mainly facilitated by the new legislation, framing the housing and land ownership reform – the former residential structures have continued to persist as there has been no pressure for change of place of residence for those who privatised their housing and became home-owners. Similarly to the other CEE countries where give-away housing privatisation strategy was applied (Bodnár, 1996; Daniell and Struyk, 1994; Kovács, 1998a), the housing ownership reform in Estonia amplified the inequalities of the socialist housing allocation system, and created new inequalities additionally. The principal winners of the housing reform were those who occupied the best housing segments – often the so-called 'nomenclature' in the previous system. But we also see the partial return to the pre-socialist structures in case of those housing units that were restituted to former owners, although legal regulations protect sitting tenants from being evicted in most cases at least until 2007. Sitting tenants in restituted housing were mostly losers in the housing sector restructuring, as they were deprived of the right to privatise the housing they occupied.

However, the situation is not stable, and in spite of the mentioned continuities, which were realised through the transfer of social, human and physical capital into the new system, new market structures are slowly being introduced. Also, the observed trends of residential mobility provide an indication of the gradual adoption of new market structures – they are more likely households who belong to the lowest or highest income groups who have changed the place of residence during the 1990s in Tallinn, i.e. those for whom pressures and opportunities are likely the most pressing. In particular, there was a growing differentiation between the extremes in the 1990s – between the poorest and the best quality housing segments, and between the most disadvantaged and the most advantaged groups. The middle-ranges, which comprise most of the population, are mixed, occupying predominantly the Soviet large housing estates.

As regards ethnic divisions the overall segregation level is relatively high due to persistence of socialist structures. However, it can be concluded that while the Soviet system tended to privilege the non-Estonians by allocating them in state housing in new high-rise estates, and it was mostly Estonians who resided in less equipped flats, then the changes in the 1990s seem to have started to level off this difference. But the topic still needs a more thorough research. Estonians are, however, still over-represented in apartments with low level of facilities, as well as in the single-family housing areas.

The most contrasting and perhaps conflicting housing areas seem to be those located in the very centre of the city, and in suburbs both inside the city borders and outside. There, new and better quality housing segments are located next to deteriorating and lower quality units, as also the higher- social status groups are sharing territories with the lower social strata. The new residential suburbs in Tallinn region perform a sharp contrast as regards income, education and age of residents when comparing with pre-1991 settlements in the region – their significantly higher levels of incomes and education, as well as younger age structure has led to a completely transformed residential pattern in Tallinn suburban region when compared with the socialist period.

5. SUMMARY AND DISCUSSION

The transformation from the socialist to the capitalist system marks a significant shift in the Estonian near history. On the surface, the socialist system seems to be the past, and capitalism, i.e. market economy, the present prevailing system. Nevertheless, beneath the surface the structures shaping our everyday decisions and actions remain to be influenced by the socialist system to a large extent (Bodnár, 1996; Pickvance, 1997; Stark, 1996). There are ongoing discussions yet on which scenario the Central and East European countries and their housing system are heading (Pichler-Milanovich, 2001).

The current PhD research analysed (1) the main factors that had led to changes in socio-spatial residential differentiation in Tallinn, the capital city of Estonia, and its surrounding area in the post-socialist period, and (2) the changes of this pattern during the period 1991–2005. The thesis has adapted an approach which suggests a significant influence of an existing social system on human actions and on socio-spatial outcomes. There is a widespread agreement that substantial differences existed between socialist and capitalist social systems, leading to different mechanisms of producing socio-spatial residential segregation (Dangschat, 1987; Szelényi, 1987; 1996). Socialist cities were, however, generally characterised by a lower level of residential segregation as compared to capitalist cities (French and Hamilton, 1979; Smith, 1994, 1996; Szelényi, 1996).

Transition from socialist to market economy in Central and Eastern European countries has resulted in new and increasing inequalities in access to housing market which is a combined effect of the legacy of state socialism and the logic of the market (Bodnár, 1996, p. 620). The institutional-legal setting, e.g. housing privatisation framework, has enabled the 'old elite' to shift their previous political and social capital to the economic capital in the new system (see Bodnár, 1996, Pichler-Milanovich, 2001; Pickvance, 1997 in this issue). Those who were not favoured in the previous system are divided between the 'lucky' ones who had chosen the 'exit' option and built cooperatives or their own houses during the socialist era, whereas those who stayed in pre-war old housing are the ones who have the most to lose. Many of them have lost their home, as it was restituted to the old owner. Transition to the market economy has also altered social stratification orders in Estonia, allowing many 'new groups', especially the younger generation, to join the elite.

All the main preconditions for enhanced residential segregation, i.e. increasing social disparities, diminished public intervention, including housing privatisation, and increased differentiation within the housing stock (e.g. Dangschat 1987; Musterd and Ostendorf, 1998; Smith, 1996) have paved the way for the expansion of socio-spatial disparities in the housing market of the capital city of Estonia during the post-socialist period. The increased social disparities have

led to better visibility of the previously latent residential segregation pattern, as well as to changes resulting from selective residential mobility.

The results of the empirical studies reveal that by the end of the 1990s, the socio-spatial residential pattern in Tallinn was to a large extent still characterised by the continuity of the socialist structures, and no substantial socio-economic residential segregation or polarisation between housing submarkets and larger spatial units could be seen. Drastically increased income disparities, opening up of better housing opportunities for the wealthier and radical housing sector reforms had not translated into housing market differences and shifted residential structures to any remarkable degree by 1999. The level of ethnic segregation is considerable, which causal factors relate to the socialist housing allocation principles.

But the situation is not stable. Gradually, new market distribution rules have been introduced that have led to a moderate increase in residential socio-economic disparities. In the most rapidly developing parts of the city region, particularly in the central down-town districts and the residential low-rise suburbs, one can see structures of the old communist system confronting the invading new, market structures, influenced by the overall economic restructuring and internationalisation processes – a tendency observed also in other CEE countries (e.g. Kovács, 1998b; Pichler-Milanovich, 2001; Sýkora, 1999b; 2005; Sýkora and Ouředníček, 2006). Among these conflicting structures we see new residential developments in the centre next to dilapidated wooden housing establishments, or new gated communities of the affluent within the Soviet detached housing residential districts with average or even lower social strata population. New generations are adjusting most rapidly to the market rules, as they have barely any other choice. Many of them have rapidly become part of the new elite and successfully found their way straight to the best parts of the housing market, but many are left out with very limited or no choice. Young people are also those who are introducing new value and preferences structures more influenced by Western traditions, realised in their housing type and location choices (e.g. suburban housing or gentrified housing in old neighbourhoods).

Therefore, what we can confirm is that the city of Tallinn and its region was in 1999 still characterised by an overall mixed residential pattern. Instead of polarisation between large rich or poor districts, the results suggest the development of pockets of wealth and poverty within an otherwise mixed socio-spatial structures. The most dynamic spaces in the city centre and attractive low-rise suburbs are undergoing more rapid change. By contrast, some low-status tenement blocks in the inner city have been subject to a continuous social decline during the transition period (see also Kovács, 1998b; Ladányi and Szelényi, 1998; Sailer-Fliege, 1999; Sýkora, 1996 for similarities with other CEE countries). Apart from these extremes, the vast majority of the population, from all income categories, remain residing in socialist housing estates, which are being slowly upgraded as the economic situation of the households

improves. Importantly also, the level of socio-economic status varies between these Soviet estates (the tendency observed also in some other CEE countries, e.g. Geröházi and Szemző, 2006; Pichler-Milanovich, 2001), reflecting largely the socialist housing allocation principles. These differences will most likely be exacerbated within the years to come.

The socialist system as such is history, but its structures are continuously shaping the residential development in Tallinn and its region for a long period to come. The possibility that these will be replaced completely by the new, market ones, is unlikely, as many of the structures are quite persistent for changes. The transition will of course lead towards more similarities with the Western Europe, and the liberal countries there in particular, but the housing development in Estonia would keep its distinctive features due to the history that is still there. While the greater residential mix may serve as an advantage for urban development, many arising conflicts are unavoidably ahead due to the rapid social, economic and political dynamics in the capital city.

The contemporary liberal economic policies and the weak social and housing policy in Estonia are conducive to a further increase in the socio-economic residential differentiation in the capital city and its surrounding area. It also depends on the socio-economic situation of households whether all of them residing in home-ownership sector will be able to keep their current housing position. The maintenance of the housing stock requires much investment, and those unable to bear those costs might be forced to move (Pichler-Milanovich, 2001). If not the middle-aged and older generations, i.e. those who were active in the privatisation process, then the new generations at least, whose options are clearly restricted with regards to their ability to pay, are going to introduce the new residential structures.

The research undertaken has also led to the possible new topics that need to be further researched. Our datasets were highly restrictive as regards the scale of research – if the research had covered smaller spatial units, respecting the more ‘natural’ boundaries of neighbourhoods, the segregation pattern would probably have shown remarkably higher degrees of segregation. This could be a further research area, drawing from census data or survey data on smaller spatial units. It cannot be fully answered whether the modest socio-economic changes in the residential pattern are due to ‘in-place’ social mobility or residential mobility. The mobility rates in CEE countries suggest that a characteristic feature of post-socialist cities is a low mobility rate. Therefore, it is likely that much of the growing disparity that we saw own to ‘in-place’ social mobility, i.e. the better visibility of the latent residential segregation. Further research should clarify this issue, and pay more attention to households’ social and housing careers combinedly. The extent of ‘in-place’ housing renovation, i.e. in the current location of households, needs to be researched as well (Mandič, 2001). Longitudinal analysis would be needed to study social and housing careers of households belonging to different socio-economic or ethnic groups, and cohorts. And this could be complemented by studying households’

motivations and preferences as regards housing choices. Ethnic composition, and its changing character, would need a research frame of its own, as this would then allow to say more precisely whether residential mobility leads to levelling off ethnic residential differences and to better spatial integration between ethnic groups, or the opposite.

SUMMARY IN ESTONIAN

Sotsiaal-ruumiline elukohapõhine segregatsioon postsotsialistlikes linnades Tallinna näitel

Käesoleva uurimistöö eesmärgiks oli (1) välja tuua ja analüüsida põhilisi faktoreid, mis on viinud muutusteni üleminekuperioodi sotsiaal-ruumilises elukohapõhises segregatsioonimustris Tallinnas ja seda ümbritsevas regioonis, ning (2) analüüsida põhilisi elukohapõhise segregatsiooni muutuseid aastatel 1991–2005. Doktoritöö koosneb pikemast ülevaatlisest osast ja neljast põhipublikatsioonist. Analüüsi aluseks olevad andmed pärinevad põhiliselt riiklikest elanikkonna küsitlustest, mis on läbi viidud perioodil 1995–1999, ning Tartus aastal 1998 ja Tallinna linna ümbritsevates uuselamurajoonides aastal 2006 läbi viidud elanikkonna küsitlustest. Analüüsimeetodina kasutan põhiliselt elanikkonna erinevat (ruumilist) jaotust eluasemete segmentide lõikes mõõtvaid indekseid, nende põhjal koostatud aegridu, ning binaarset logistilist regressioonianalüüsi.

Uurimistöös kasutatava teoreetilise lähenemise keskmeks on sotsiaalsete süsteemide ja sotsiaal-ruumiliste elukohamustrite vahelise seose väljatoomine. Lähtutakse kirjanduses levinud arusaamast, et elukohamustrid ja nende kujunemismehhanismid, s.t. sotsiaalsete süsteemide poolt loodud võimalused ja piirangud, olid sotsialistlikus ja kapitalistlikus süsteemis põhimõtteliselt erinevad. Kapitalistlike ühiskondadega võrreldes oli elanikkonna segregatsioon sotsialismimaades üldjoontes vähem levinud. Turumajandusele üleminek on Kesk- ja Ida-Euroopa postsotsialistlikes maades tinginud olukorra, kus eluasemete jaotuses on hakanud küll toimima uued põhimõtteid, kuid samas võib täheldada mitmete sotsialistlikust süsteemist pärinevate järjepidevuste säilimist (nn rajasõltuvus [*path-dependency*]). Üheks oluliseks järjepidevuste säilimise viisiks on kapitali ülekandumine ühest süsteemist teise – kommunistliku režiimi vältel akumulunud sotsiaalne, füüsiline jm. kapital on osutunud oluliseks eeliseks tugeva stardipositsiooni kindlustamisel uude süsteemi sisenemiseks.

Sotsiaal-ruumiline elukohapõhine segregatsioon tähendab erinevate elanikegruppide elukohtade ruumilist üksteist eraldatust, ning see on mõjutatud nii struktuurasetest võimalustest ja piirangutest kui ka individuaalsetest elukohaelistustest. Elukohapõhise segregatsiooni süvenemiseks on loodud struktuurased tingimused, kui suureneb sotsiaalne kihistumine, väheneb avaliku sektori roll eluaseme- ja sotsiaalpoliitika kujundamisel (sealhulgas eluasemete erastamise tulemusena) ning laieneb erinevat tüüpi eluasemete valik eluasemeturul. Eestis võib üleminekuperioodi vältel täheldada kõigi nimetatud protsesside toimimist, mistõttu võib ka eeldada sotsiaal-ruumiliste elukohaerisuste kasvu Tallinnas ning selle lähiümbruses. Turumajanduslike põhimõtete kehtima hakkamine on lisaks erinevuste suurenemisele mõjutanud ka muutusi sotsiaalses kihistumises, aidates seeläbi kaasa eliidi koosseisu ümberkujundamisele. Samal

ajal on institutsionaalne raamistik toetanud erinevate kapitalide ülekandumist vanast süsteemist uude, võimaldades seeläbi paljudel endisesse kommunistlikku eliiti kuulunud saavutada tugev positsioon ka uues ühiskonnas. Sotsiaalse kihistumise muutumine ja erisuste suurenemine on toonud kaasa sotsialismi-perioodil varjatult eksisteerinud elukohapõhise segregatsiooni parema esiletuleku, samuti selektiivsest elukohavahetusest tulenevad muutused linnaruumis.

Uurimistulemused näitavad, et Tallinna elanikkonna jaotust linnaruumis iseloomustas 1990-ndate aastate lõpul suures osas sotsialistlike struktuuride ülekandumine. Seega ei saa täheldada olulist elukohapõhist segregatsiooni või polariseerumist elamuturu segmentide ja suuremate ruumiliste üksuste vahel. Rahvuste-põhise (eestlased võrreldes mitte-eestlastega) segregatsiooni tase on võrreldes sotsiaal-majandusliku segregatsiooni ulatusega suhteliselt kõrge, kuid ka see on põhiliselt seletatav nõukogude perioodile omase eluasemete jaotuspoliitikaga. Uute turumajanduslike jaotuspõhimõtete kehtimahakkamine on siiski soodustanud järk-järgult süvenevate sotsiaalmajanduslike erinevuste suurenemist elukohamustrites – täheldada võib vaesemate elanikkonnagruppide ülesindatust vähem kvaliteetsematel ning kõrgemate sissetulekugruppide ülesindatust kõigi mugavustega elamispiinadel. Ka 1990-ndatel aastatel teostatud elukohavahetused on sellele suundumusele kaasa aidanud.

Tallinna linnale oli 1990-ndate aastate lõpul iseloomulik olukord, kus väikese ulatusega nn “rikkuse ja vaesuse taskud” paiknesid sotsiaalmajanduslikult küllaltki segunenud elamupiirkondades. Sama tendentsi võib täheldada ka linna ümbritsevatel aladel. Teatud lokaalsed piirkonnad tõrkavad ümbritsevate regioonidega võrreldes silma kiiremate muutustega. Näiteks on mõnedele linna sisepiirkondades paiknevatele nõukogude-eelsest perioodist säilinud madala staatusega endistele üürikvartalitele saanud postsotsialistlikul perioodil osaks jätkuv sotsiaalne allakäik. Kõige teravamast endise ja uue süsteemi struktuuride vastandumist võib täheldada kiireima arengu läbi teinud linnaregiooni piirkondades – teatud soodsa keske asukohaga linna sisepiirkondades ja atraktiivsetes väikese asustustihedusega äärelinna- ja linnalähipiirkondades, mis on muutunud jõukamatele gruppidele eelistatud elupaigaks. Näiteks on linnalähipiirkonnas asuvatesse uusasundusse elama asunud keskmisest oluliselt jõukamad, enamasti noored pered, põhjustades märkimisväärseid muutusi ja kontraste Tallinna lähipiirkonna elukohamustrites. Suurem osa elanikkonnast elab aga jätkuvalt sotsialismiperioodil püstitatud paneelelamupiirkondades, mida üldiselt iseloomustab küll sotsiaalne heterogeensus, kuid lähemal vaatlusel ilmnevad nendeski piirkondades olulised sotsiaalmajandusliku staatuse erinevused, mis on suures osas tingitud nõukogudeaegsest eluasemete jaotuspoliitikast.

ACKNOWLEDGEMENTS

The current PhD research could only be carried out with the help of many people. First, I would like to express my deepest gratitude to my supervisors Prof. Jussi S. Jauhiainen and Tiit Tammaru whose guidelines and comments it is hard to overestimate. I own many thanks to my co-author and friend Sampo Ruoppila for excellent cooperation and mutual learning. My special respect goes to my MPhil research supervisor Prof. Terje Wessel from the University of Oslo whose guidelines were highly useful in designing and implementing this research.

Jüri Kõre, Margus Hendrikson, Ille Allsaar, Martin Lux, Luděk Sýkora and Prof. Ronald van Kempen have all been excellent partners in various research projects, the results of which play a crucial role in this dissertation. Likewise, the experiences gained from the EU 5th Framework Programme project NEHOM were indispensable, thanks to a number of good colleagues. The NEHOM team leader, Prof. Arild Holt-Jensen from the University of Bergen, is a very special person to me, whose support of every kind has meant a lot to me.

The PhD research could not be implemented without institutional support, understanding and contributions from colleagues. The Institute of Geography at the University of Tartu has been the most important institution facilitating and supporting this research. My gratitude goes to Prof. Ülo Mander, Prof. Ott Kurs and Prof. Rein Ahas for their continuous encouragement and faith in me. I would like to thank my current employer – the Ministry of Social Affairs, and my kind colleagues there for their understanding and generosity. The University of Oslo, the University of Bergen, the University of Oxford and PRAXIS Center for Policy Studies cannot be left out from the thank-you list either. Regrettably it is not possible to mention all the names whose contribution has been crucial for my learning and building up the research.

Finally, my gratitude belongs to my good friends who provided me a good company during the PhD studies, and especially to Veiko for a number of valuable comments on my work. Most importantly, my deepest thanks go to my parents and sister Kaja for providing moral support during my PhD research and for facilitating my studies in all possible ways, and to Harri – for your understanding, encouragement, patience and support while I was writing my dissertation.

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APPENDIX

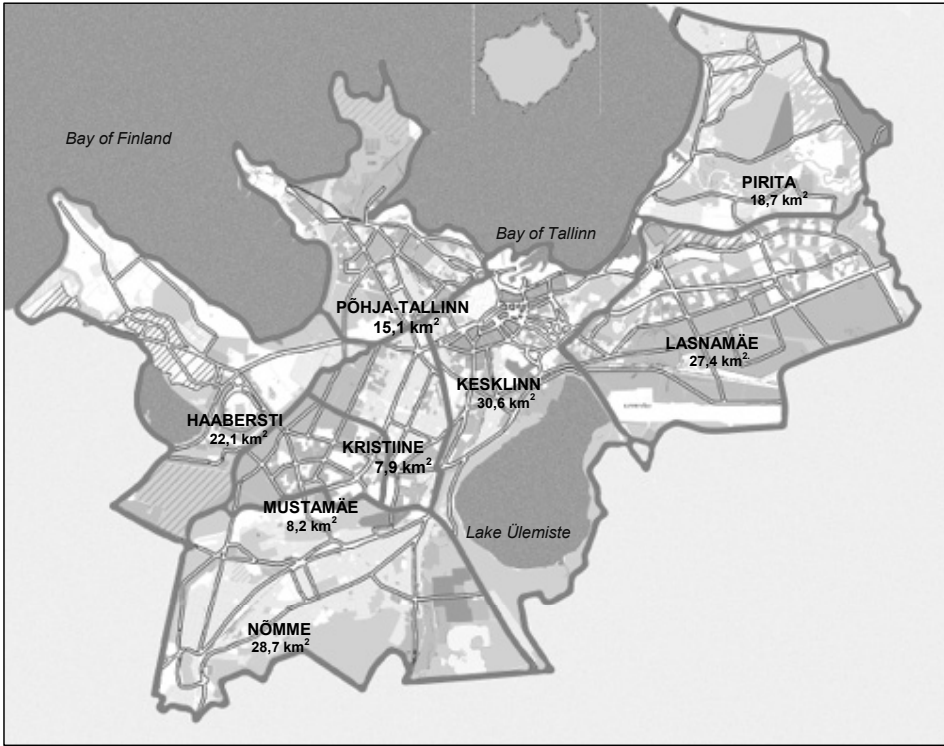


Figure 1. Map of Tallinn administrative city districts.

Source: Reprinted from Tallinn City Government (2005) Some statistics about Tallinn 2004, p. 12.

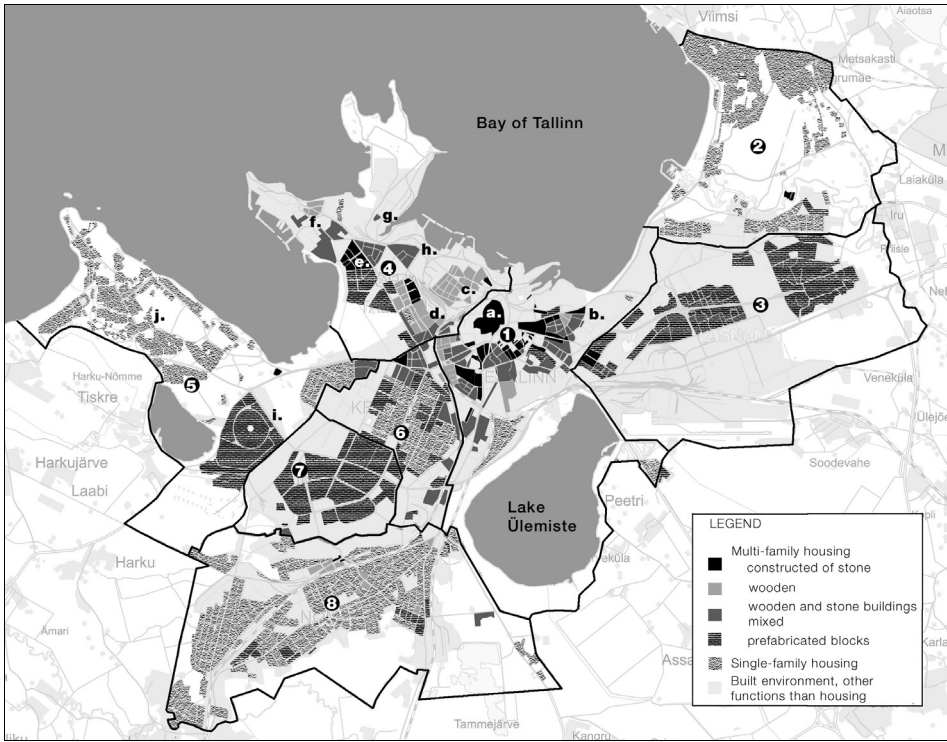


Figure 2. Principle housing types in Tallinn’s residential areas. The eight administrative city districts are (1) Central Tallinn, (2) Pirita, (3) Lasnamäe, (4) Northern Tallinn, (5) Haabersti, (6) Kristiine, (7) Mustamäe and (8) Nõmme.

Source: Reprinted from Ruoppila, S. (2005) *Housing policy and residential differentiation in post-socialist Tallinn*, *European Journal of Housing Policy*, 5, pp. 279–300.



Figure 3. Kalamaja neighbourhood., Tallinn (a pre-war housing area in Northern Tallinn).

Source: Author's photo (2006).



Figure 4. Kopli neighbourhood, Tallinn (a disadvantaged housing area in Northern Tallinn).

Source: Author's photo (2006).



Figure 5. Kadriorg neighbourhood, Tallinn (a gentrified area in Central Tallinn).
Source: Author's photo (2006).



Figure 6. Vilmsi st., Tallinn (a gentrified area in Central Tallinn).
Source: Author's photo (2006).



Figure 7. Narva st., Kesklinn, Tallinn (a new residential development in Tallinn city centre).

Source: Author's photo (2006).



Figure 8. Maakri st., Kesklinn, Tallinn (a new residential development in Tallinn city centre).

Source: Author's photo (2006).



Figure 9. Lasnamäe, Tallinn (a Soviet high-rise estate in the suburbs).

Source: Author's photo (2006).



Figure 10. Lasnamäe, Tallinn (a Soviet high-rise estate in the suburbs).

Source: Author's photo (2006).



Figure 11. Mustamäe, Tallinn (a Soviet high-rise estate in the suburbs, municipal social housing block).

Source: Author's photo (2006).



Figure 12. Nõmme, Tallinn (suburban low-rise housing area).

Source: Author's photo (2006).



Figure 13. Iru, Harju county (a new residential suburb in the Tallinn metropolitan area).
Source: Author's photo (2006).



Figure 14. Altmetsa neighbourhood, Harju county (a new residential suburb in the Tallinn metropolitan area).
Source: Author's photo (2006).

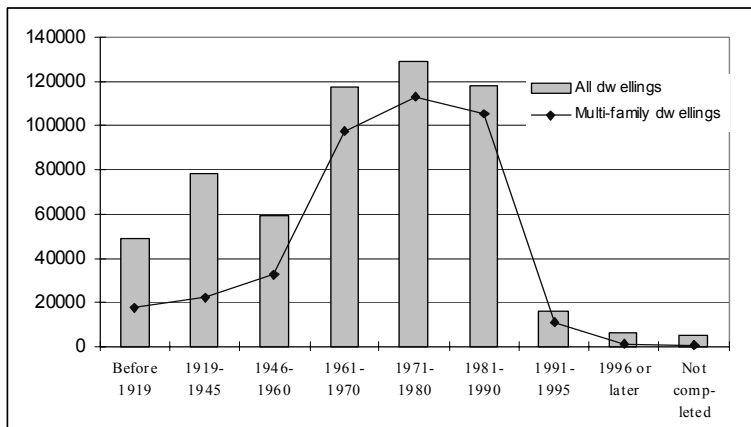


Figure 15a. Dwellings' construction period and share of multi-family housing*, Estonia (number of dwellings), 2000**. *Source: Statistical Office of Estonia, 2006. Author's figure.*

* – The vast majority of the rest of the housing stock consists of (semi-)detached or row houses.

** – For 38,383 dwellings (19,469 in multi-family houses) the period of construction is unknown.

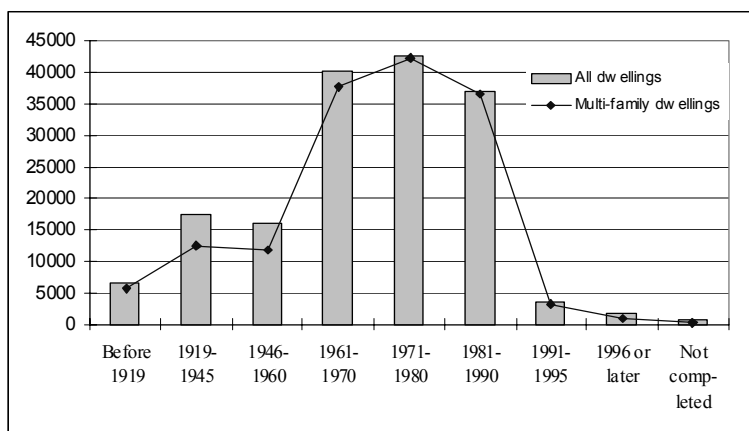


Figure 15b. Dwellings' construction period and share of multi-family housing*, Tallinn (number of dwellings), 2000**. *Source: Statistical Office of Estonia, 2006. Author's figure.*

* – The vast majority of the rest of the housing stock consists of (semi-)detached or row houses.

** – For 6,145 dwellings (5,297 in multi-family houses) the period of construction is unknown.

Table 1. Population and social welfare statistics about Tallinn city districts, 2004.

District	Population	%	Number of applicants for a municipal rental dwelling	%	... without tenants in restituted housing	%	Number of households receiving subsistence benefit and other social benefits*	%	Number of criminal offences in total	%
Haabersti	38,267	9.5	16	0.4	15	0.9	622	8,3	1,419	5.8
Kesklinn/ Centre	45,652	11.4	1,161	30.2	218	13.0	781	10,4	7,650	31.4
Kristiine	29,908	7.4	248	6.4	130	7.8	436	5,8	1,945	8
Lasnamäe	114,440	28.5	175	4.5	175	10.4	2,641	35,2	5,439	22.3
Mustamäe	65,837	16.4	393	10.2	393	23.4	1,174	15,7	2,313	9.5
Nõmme	39,102	9.7	549	14.3	229	13.7	244	3,3	1,745	7.2
Pirita	11,299	2.8	40	1.0	21	1.3	80	1,1	691	2.8
Põhja-Tallinn/ Northern Tallinn	56,977	14.2	1,267	32.9	496	29.6	1,522	20,3	3,186	13.1
Total	401,502	100	3,849	100	1,677	100	7,500	100	24,388	100

*Social benefits that are financed from the state budget (do not include child and parental benefits).

Source: Tallinn City Government (2005) *Some statistics about Tallinn 2004*; administrative data, Ministry of Social Affairs

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Kährik, A. (2000) Housing privatisation in the transformation of the housing system. The case of Tartu, Estonia, *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, 54, 2–11.

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LIST OF PUBLICATIONS

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- Jauhiainen, J. S. and Kährik, A. (2005) Chapter 7: Estonia. In R. van Kempen, M. Vermeulen and A. Baan (eds.), *Urban Issues and Urban Policies in the New EU Countries*, pp. 131–154. Aldershot: Ashgate Publishing.
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