

“Shrinking city” in Eastern Germany

The term in the context of urban development in Poland

Dissertation
zur Erlangung des akademischen Grades
doctor ingenieur
(Dr. -Ing.)

an der Fakultät Architektur
der
Bauhaus-Universität Weimar

Vorgelegt von
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Geboren am 07.02.1979 in Krakow

Weimar, 2012

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Acknowledgements

I would like to thank my first supervisor Prof. Max Welch Guerra for encouraging me to start dealing with the issue of “shrinking city” and supporting me strongly during my research.

I am also greatly indebted to my second supervisor Prof. Frank Eckardt. His constructive comments and advice have highly influenced my thesis.

I would like to thank Prof. Dieter D. Genske, who enabled me cooperation with Fachhochschule Nordhausen.

The studies in the International PhD Program at the Institute for European Urban Studies at the Bauhaus University in Weimar gave me the opportunity to exchange ideas and discuss the issue with other fellow students. I am very grateful to my study colleague Enrica Longo and Dr. Larissa Coles for many critical remarks as well as for language corrections.

I am also very grateful to Karolina Kleta, who read first version of the thesis’ text and Maximilian Mendel, who gave important remarks in the final stage of the research.

I would like to thank my husband Dr. Jan Cieśla for suggestions as well as corrections and for emotional support, without which I would not have been able to complete this work.

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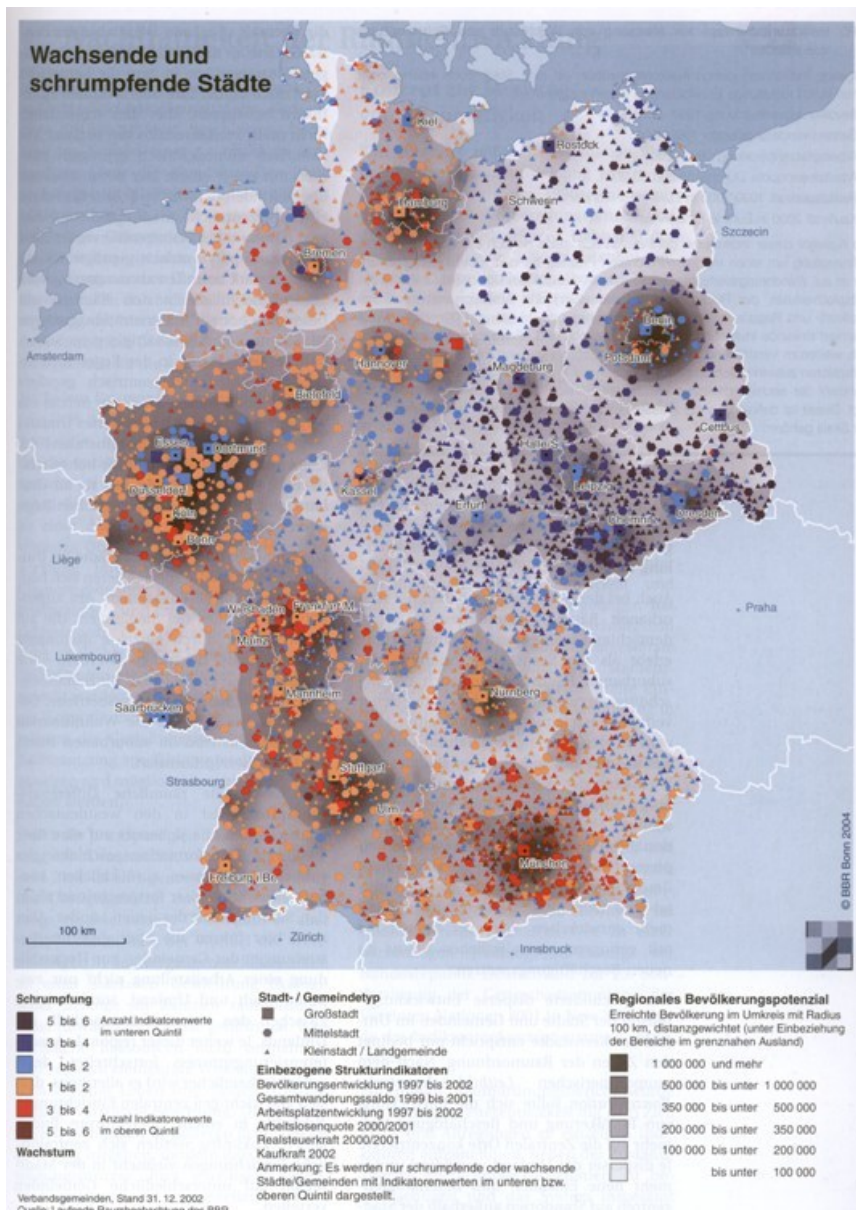
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1. Introduction

For over ten years the “shrinking city” issue has been widely discussed in Germany. This debate was triggered by great problems of Eastern German cities and towns, which grew to such a level that, after the year 2000, they began to be broadly discussed not only by the researchers, but also by the politicians and the public. These problems include among others: high population decrease, great oversupply of the housing stock, deserted core cities, high unemployment rate, low investment attractiveness and very advanced ageing process of their populations.

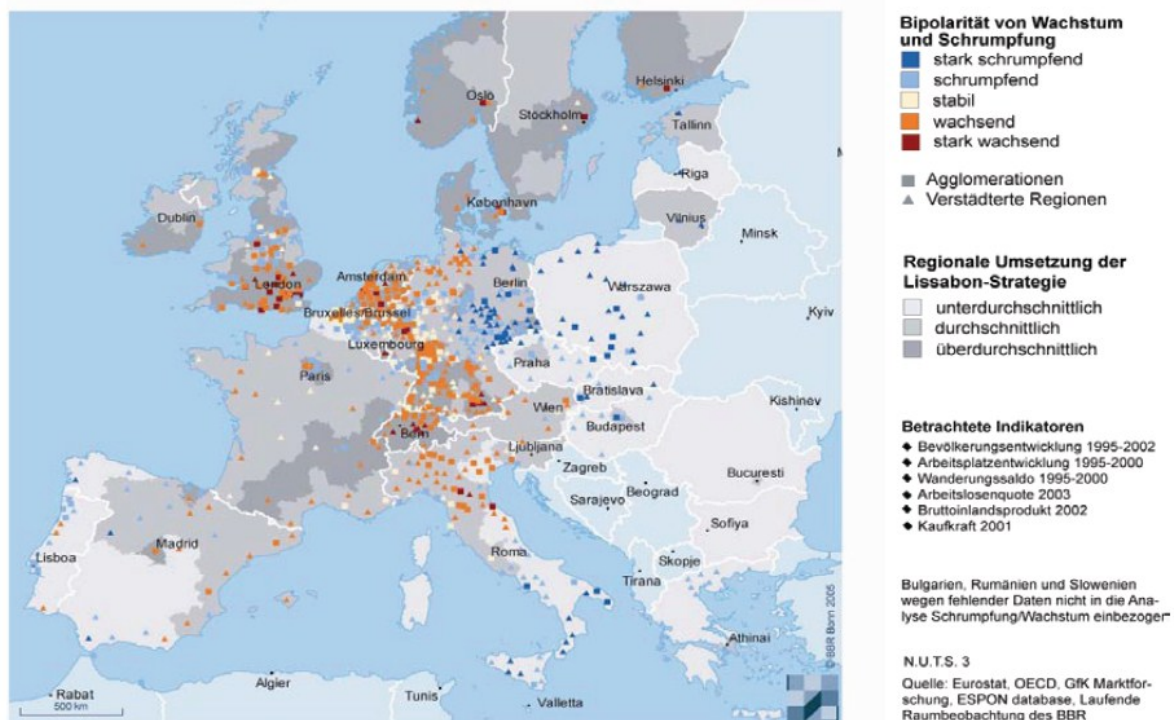


Picture 1. „Growing and shrinking cities” in Germany, source: (BBR 2005, 89)

The urban development in Germany polarized. In the western part of the country cities are growing and they have positive economic indicators. On the contrary, in the eastern part, cities have far more negative demographic development and experience substantial economic difficulties. This discrepancy in the urban development started to be interpreted as the outcome of the forty-five years country's division and of the belonging of Eastern Germany to the socialist block.

The socialism and the post-socialist transformation are regarded as the reasons for the currently observed crisis of cities in Eastern Germany. This frame started to be applied to other cities in the post-socialist countries (Gatzweiler, Kuhlmann, et al. 2006, 6), (Barnick 2008), (Rieniets 2005), (Haller 2004). In fact, after the collapse of the socialism many cities in Central and Eastern Europe began to depopulate. Their depopulation was interpreted as a sign of a crisis and justified a conviction that “shrinking cities” are the outcome of socialism and post-socialism. In this way the European urban development started to be divided into the western one with growing cities and the eastern with “shrinking” ones as it is shown on Picture 2.

Wachsende und schrumpfende städtische Regionen in Europa



Picture 2. Growing (orange/red) and “shrinking” (blue) urban regions in Europe, source: (Gatzweiler, Kuhlmann, et al. 2006, 6)

Contemporaneously, the phenomenon of “shrinking cities” started to be presented as not restricted to the Eastern German area nor even to the Central and Eastern European one but it began to be treated as an ordinary, global process (Oswalt and Rieniets 2006).

Despite the depopulation of some cities in Poland since the turn of the 1990s, no debate was raised in this country on the issue of the city crisis so far. In Poland no such term as “shrinking cities” – German “schrumpfende Städte” was created for depopulating cities, nor is their population decrease attracting a broader attention. The urban discussion concentrates on urban regeneration and counteracting uncoordinated development. The term “shrinking city” remains unknown in the current urban debate on urban issues in Poland.

There is a discrepancy between the German and Polish approaches to the depopulating cities in Poland. The former names them as “shrinking” implying that they are considered to be in a severe crisis. The latter does not regard them as being in crisis. Therefore, the goal of this doctoral thesis is to clarify which of these approaches is justified. This will be found out by answering the following research question:

Is the “shrinking city” term appropriate to depopulating cities in Poland?

The answer for the research question shows whether the currently observed growing usage of the “shrinking city” term in reference to other cities in the world and particularly to those in Central and Eastern Europe is justified. It also shows to what extent the urban development in Eastern Germany is typical and exemplary for other countries. Moreover, this study clarifies whether the lack of debate on the issue of the city crisis in Poland is proper and whether such a debate is needed.

Despite being in common use, the term “shrinking city” is still vague. It is often referred to cities with a decreasing population and worsening economic conditions. Nonetheless, in many publications relating to the topic, this term is applied to cities only on the basis of their demographic development, though. Population decrease is treated as a determinant for a city crisis and it is considered as the result of negative economic trends. Such an interpretation of the term widens the range of cities to which it may be applied. However, it hides important spatial and economic phenomena resulting from the population decrease. Therefore, the first step to find the answer for the research question is defining the term “shrinking city”. This necessity is further justified by the fact that in the integrating Europe it is very important to create accurate and precise terms that relate to spatial changes.

The research has a descriptive purpose, as it outlines the main contours of the modern urban development in Germany and Central Eastern Europe. Such an approach allows for identifying common trends and differences between German and Polish cities and provides the ground for defining a “shrinking city”. In this approach the research has also a normative character.

State of the art

The phenomenon of “shrinking cities” in Germany is described in many recently published works, which are presented in Chapter 2. However, the first publications on the issue date back to the late 1980s when the “shrinking cities” were identified for the first time (Häussermann and Siebel 1987) (Häussermann and Siebel 1988). These publications serve today as the basis for the discussion. On the contrary, publications describing the difficult situation of the GDR cities (Hunger 1990) that appeared at the end of the GDR existence are hardly mentioned in the current works relating to the city crisis in Eastern Germany.

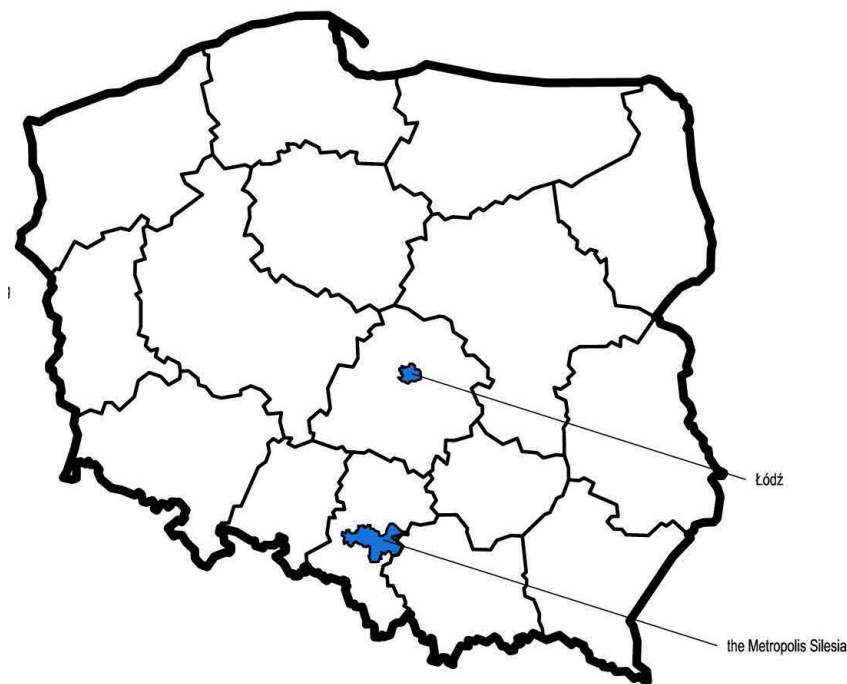
So far, the issue of “shrinking cities” in Eastern Germany was analyzed from the western perspective, mainly by the German researchers. It was presented as a consequence of socialism and the references to the socialist and pre-1945 period were rarely done. Therefore, the dominating interpretation describes “shrinking cities” in Eastern Germany as a short-lasting, sudden phenomenon and such an interpretation is being accepted by other foreign researchers (Mykhenko and Turok January 2007). This dissertation aims to analyze the issue of the city crisis in Eastern Germany in a different way. First of all it presents an in-depth analysis of the Eastern German urban development from the Polish perspective. Secondly, it investigates the causes of the “shrinking cities” emergence in a more distant past.

Currently, population decrease became the most important determinant for naming a city a “shrinking” one. Nonetheless, population changes are more complex and consist not only of a sole increase or decrease of the overall population number but also are characterized by the age structure changes. These complicated demographic processes highly influence the economic and spatial development of cities. So far the impact of the population’s age structure changes on the economic development was analyzed at country level in many studies and publications (Bloom, Canning and Sevilla 2003), (Kaufmann 2005), (Felderer and Sauga 1988). This thesis refers to them, as changes in population’s age structure at city level also highly influence economic performance of a city. The impact of these changes on the spatial development of cities was rarely elaborated on (Parysek 2005), (Kaufmann 2005).

Case studies

Several Polish and Eastern German depopulating cities are taken as case studies. In the group of Polish cities there are 14 cities of the Metropolis Silesia and Łódź. These cities are depopulating since the turn of the 1990s and are described as “shrinking” in some recent studies on the urban development (Mykhenko and Turok January 2007), (Oswalt 2005), (Großmann, et al. 2008), (Oswalt and Rieniets 2006), (DGIPU, 2007). The fact of naming them “shrinking” in these publications is the reason why they were chosen to represent Poland in this thesis.

Both the Metropolis Silesia and Łódź count to the largest Polish cities and they are the main production centers of the country. Łódź is nowadays the third largest Polish city after Warsaw and Krakow and has 742 thousand inhabitants. Between 1995-2007 Łódź lost 8.5% of population. It is located in the central part of the country, 120 km away from Warsaw. Throughout its history the economic backbone of Łódź was the textile industry.



Picture 3. Location of Łódź and Metropolis Silesia. Yellow: Łódzkie Voievodship, brown: Śląskie Voievodship

The Metropolis Silesia is a union of 14 adjacent cities in the Silesian Voivodeship, inhabited by 1.97 million. The union was created in 2007 as a result of a need for a more effective cooperation of the cities within the conurbation. The cities’ size ranges from 50 000 to over

300 000 inhabitants. The economic structure of these cities was based during the socialism on coal mining and heavy industry.

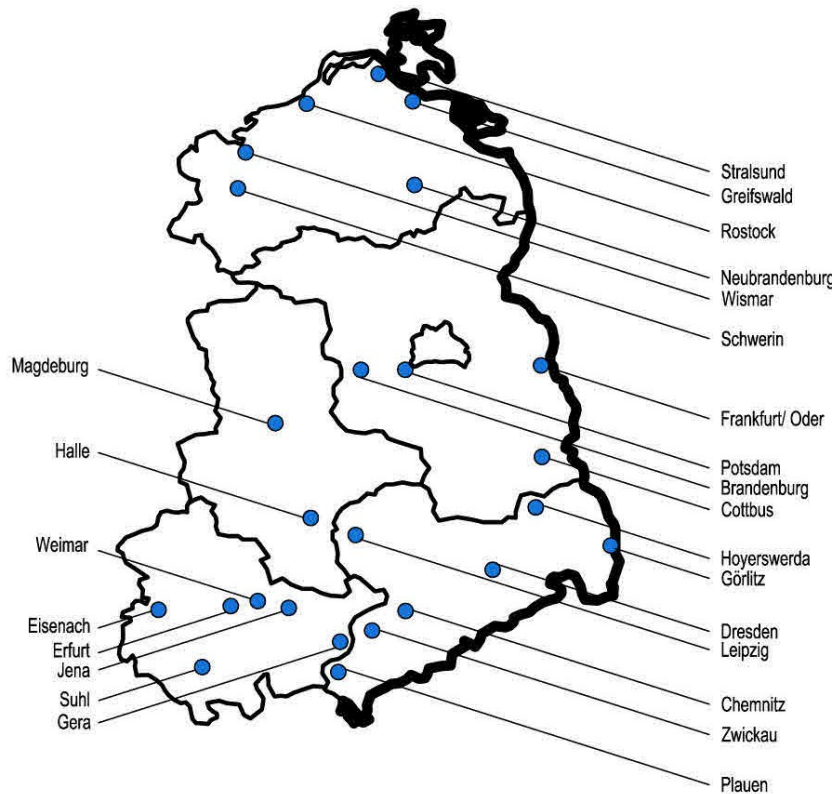


Picture 4. Metropolis Silesia, composed of 14 cities, own presentation

Nowadays, these industrial branches are still very important. Between 1995-2007 the Metropolis Silesia lost 7.2% of inhabitants. Despite this depopulation, the Metropolis Silesia still remains the largest Polish metropolitan area. Data for the Polish cities were obtained from the online database of the Central Statistical Office (www.stat.gov.pl) and also, when referring to earlier periods, from published statistical yearbooks.

The Eastern German case studies are formed by 25 „kreisfreie Städte” (cities constituting a district in its own right) – major cities in Eastern Germany. The data concerning these 25 Eastern German cities were obtainable in the online database of the German Federal Statistical Office (www.regionalstatistik.de and www-genesis.destatis.de) for the period 1995-2007. After 2007, the administrative reform in Saxony deprived Plauen, Zwickau, Görlitz and Hoyerswerda of their Kreisfreie Stadt status and, in subsequent years, their data are unavailable in the online database.

All these cities suffered great population losses in the 1990s. Although afterwards the depopulation diminished, these cities are still characterized by negative processes like ageing, high unemployment rates, perforating urban structure and they are referred to as “shrinking”. The cities are evenly distributed over the Eastern German area and their population ranges from 40 000 to over 500 000 inhabitants. Such a large pool of the Eastern German cities enables an insight into what a “shrinking city” is.



Picture 5. Twenty five Eastern German cities, which are analyzed in this study, own presentation

Methods

The research was based on an interdisciplinary approach that consisted of four components:

Observation and interview dominated in the first phase of the research. A four years long stay in Eastern Germany, during which I made numerous trips through the area, gave me the opportunity to observe and experience the development of the Eastern German cities. I had also the opportunity to carry out interviews with city dwellers, academics and city officials. This approach was also present by analyzing the Polish cities, similarly interviews were made as well as I spent two months in the Metropolis Silesia.

Critical analysis of the literature covered 120 publications from the fields of urban studies, demography, history, sociology and economy published in German, English and Polish languages. This wide range of publications in three languages allowed for taking a look at different perspectives on the same issues in different countries. Such an approach was helpful in undertaking a critical discussion.

The information found in the selected literature served finding preconditions for emerging an urban crisis in highly developed countries.

Analysis of the data referred to the statistical data describing demographic and spatial issues of the case studies – single cities and at country level. This part of the research applied to the currently conducted transformations and the socialist period. The information acquired from the statistical data analysis served to complement material found in the literature.

In the final part of the research a *synthesis* of the gathered information was made. It was divided into three parts each focusing on a different period: pre-1945, the socialism and after 1989. These three periods are important time intervals in the history of Eastern Germany and other countries of Central and Eastern Europe. For the period after 1989 the urban development was analyzed in three dimensions: demographic, spatial and economic. Such a historical analysis provided important insight into how the “shrinking cities” in Eastern Germany developed.

Structure of the thesis

The thesis is divided into 6 Chapters. This introductory Chapter is followed by Chapter 2, which describes the current state of discussion on the city crisis in highly developed countries. As opposed to developing countries, where cities are rapidly growing, countries with advanced urbanization face different urban processes. These processes are the consequences of the Industrial Revolution, which took place in those countries basically in the 19th century and led to a spectacular city growth. In the 20th century, particularly in the second half, cities in highly developed countries began to be affected by: deindustrialization, suburbanization and demographic transitions. These triggered a lot of problems and so far unseen phenomena in cities. In several highly developed countries a discussion on the city crisis began. In Anglo-American space the term “urban decline” was introduced, while in Germany a “shrinking city” term started to be in use.

The German discourse on urban crisis is thoroughly investigated not only in a short-term perspective, but also reaches back from the origins of this discussion up to 1990 in Western Germany and the GDR. This was done on the basis of two major publications that appeared in that period “Neue Urbanität” (Häussermann and Siebel 1987) and “Städtebauprognose DDR” (Hunger 1990). After presenting the causes why this issue remained concealed in the 1990s, the new phase of discourse is described, also on the basis of related publications. At present

the “shrinking city” term is applied to all cities with decreasing population, the post-socialist ones and even to the socialist. These interpretations of the term substantially widen the pool of cities to which it may be applied and give the impression that “shrinking city” phenomenon tends to spread.

The purpose of Chapter 3 is to find out the origins of the “shrinking cities” in Eastern Germany. In the 20th century Eastern German urban development was under the influence of two very different urban policies. Until 1945 cities in Eastern Germany developed under the same conditions as those in the Western part of the country. They experienced a very dynamic growth between the mid of the 19th and the outbreak of WW I. In the in-between war period the dynamics of their development stabilized. Afterwards, for a period of 45 years Eastern German cities belonged to the socialist block, where entirely different urban development policies were forced. The reasons for the West-East division in Europe are thoroughly investigated. After presenting the urban development of Poland during the socialism focus is laid on the German Democratic Republic (GDR). It is investigated how urban development proceeded in these both countries in that period.

In Chapter 4 I elaborate on the reasons for the urban crisis in Eastern Germany that occurred after 1989. Although the German Reunification took place in 1990, here the year 1989 is treated as a threshold between the socialistic and capitalistic period. The collapse of the socialism was a long and complicated process. Already in November 1989 the Berlin Wall fell down, enabling a great outmigration from the former GDR into Western Germany.

At present radical deindustrialization, intensive suburbanization and high population decrease that occurred after the collapse of the socialism are regarded as the main reasons for the city crisis in Eastern Germany. In Chapter 4 not only the mentioned processes are investigated, but also the influence of the demographic changes on the spatial and economic development in the Eastern German cities.

Chapter 5 deals with the same issues as in the Chapter 4 however in relation to the Polish depopulating cities: the Metropolis Silesia and Łódź. The aim of this Chapter is to find out to what extent the urban developments in Eastern Germany and Poland were convergent after 1989. Consequently, data on Polish cities are compared with those on the Eastern German cities presented in previous Chapter. This enables easy identification of similarities and discrepancies in the urban development in both countries.

Chapter 6 summarizes the results of the analysis included in the previous Chapters. The current, dominating interpretations of the “shrinking city” term are critically discussed. Afterwards, a definition of a “shrinking city” based on the urban development in Germany is presented. Its validity is proved in relation to the Polish depopulating cities and in this way the answer for the research question is found. Finally, the conclusions on the urban development in Europe and outlook for future studies are presented.

2. Current state of discussion on the city crisis in highly developed countries

The contemporary discussion on urban development concentrates on growth. 21st century was announced to be the time of a rapid growth of cities and managing urban growth became one of the most important challenges (UNPF 2007). The areas most affected by this process will be the developing regions, mostly in Asia and Africa.

This spectacular increase in the share of urban population on a global scale draws attention away from its antithesis: a decrease of population in cities which is not so widespread and takes place only locally: mostly in highly developed countries, which underwent a rapid growth between the end of the 18th and the beginning of the 20th century. In fact, cities in different world regions are on different stages of development. These stages determine problems cities have to face: either those caused by a spectacular growth or by a multidimensional decline.

City crisis became a popular topic of urban discussions in highly developed Western countries in the post-war period. Many cities in these countries had to deal with problems arising from deindustrialization, suburbanization and demographic transitions. Part 2.1 presents these causes in detail. They are being juxtaposed with processes that led to a spectacular city growth during the Industrial Revolution. Subsequent parts describe contemporary Anglo-American and German discussions concerning the city crisis. Finally, current interpretations of the term “shrinking city” are presented.

2.1. Current causes for the city crisis in highly developed countries

City crisis of the 20th and 21st century is not an entirely new phenomenon. Throughout the centuries it was present in the history of urban development. Wars, plagues, fire, natural catastrophes as well as loss of administrative functions were common reasons for city crises in the past. Their effects were often abruptly diminishing population and destroying, or gradually deteriorating city structures. Such a crisis led to a complete disappearance of some cities like Troy, but in most cases, after a period of a crisis, cities managed to grow anew as in the case of Rome.

Periods of alternating growth and decline were common in nearly all Western cities until the end of the 18th century, when the Industrial Revolution began. It was a period of quick technological progress that fuelled industrialization process but also influenced human behaviors. A lowering mortality rate and strong rural to urban migration led to huge cities' growth in Western Europe and North America. Although, the emergence and intensity of the process may vary among different highly developed countries, a common characteristic is the spectacular cities' development in all of them between the end of the 18th and beginning of the 20th century. Their urbanization levels (the share of people living in cities), grew exponentially and often exceeded 50% at the end of the 19th century.

Nonetheless, after 1945 the period of great city growth in countries of Western Europe and North America was over. Industrialization was replaced by deindustrialization resulting in the change from cities' explosion into cities' implosion. A city crisis, which main indicators were decreasing number of jobs and population, was first noticed in the UK, where the Industrial Revolution had started the earliest. It appeared later in all other highly developed countries. However, deindustrialization is not the only reason for the current city crisis in the West. Spatial deconcentration and demographic transitions are crucial as well. Both stem also from the time of the Industrial Revolution. In the following part, the causes for the urban crisis in the West, which appeared in the 20th century after the period of spectacular city growth, are presented.

2.1.1. Economic: deindustrialization

One of the outcomes of the industrialization process that flourished in the 19th century in Western Europe and slightly later in the US was the high concentration of population in cities. Numerous job opportunities created by the industry attracted new inhabitants into cities.

Indeed, as industrialization meant a rapid growth of cities, deindustrialization caused a reversal of the process. With slowing down rates of industrial development in Western countries, which began basically at the turn of the 20th century, cities started to lose their appeal for new citizens. Already in the in-between war period some of them were noting a decrease in their inhabitants' number caused by reduction of job places (e.g. Plauen in Eastern Germany, Manchester in the UK). This process gained its momentum after 1945. Already in the 1950s numerous industrial cities in the UK started to lose inhabitants and suffered from

severe economic crisis. In Western Germany cities' depopulation has been noted in the Ruhr Area since 1965.

Deindustrialization is explained as a decline in the output of manufactured goods combined with reduction of jobs in manufacturing sector. This process has been present in all cities and regions in highly developed countries since the 1970s. Nonetheless, its scale and intensity varied between individual cities, as a result of their different economic structure. The more diverse the economic base of a city was, the more it was resistant to the deindustrialization crisis. Even if one branch of production faced difficulties, a crisis on a city level could be alleviated by other prospering industries. On the contrary, the more a city's economy was relying on one industry, particularly a heavy one, the greater the crisis it faced and the more difficult it was to adapt to new post-industrial conditions. High unemployment rates and lack of prospects in finding another job in such cities were forcing their inhabitants to leave them.

Thus, deindustrialization in highly developed countries resulted in a growing division between cities trapped into a crisis and cities that were able to adjust to new socio-economic conditions. The two theories: of long waves and of product life cycle were considered to be helpful in understanding this process (Häussermann and Siebel 1987).

The theory of long waves by Nikolai Kondratieff, established in 1926, assumes that economic development can be described as long waves that consist of periods with high growth and periods with slower growth. Four accomplished waves that lasted approximately 40 to 60 years have occurred since the 18th century.

According to the theory an innovation leads to technical improvement and economic growth. In the current wave old industries are being confronted with modern ones like biotechnology, microelectronic or information technology. It has specific spatial consequences. Old industries have their seats near to natural resources and good transport connections. On the contrary, new industries are independent of natural resources and need different and more qualified workforce. As a result, modern high-tech industries have totally different location requirements than low-tech ones. The adaptation of areas occupied by old industries to the new conditions needed by high technologies is far more costly and time consuming than locating such modern companies on unused areas. Thus, new industries prefer places that were not centers of growth of the old ones (Häussermann and Siebel 1987, 64).

The product life cycle theory (known also as a “filter down theory”) invented by Vernon in 1966 puts reduction of job places down to deindustrialization and peripherization processes (Häussermann and Siebel 1988), (Häussermann and Siebel 1987, 49). There are five stages in a product life cycle: introduction, growth, maturity, saturation and decline. In the first one production requires high research (designing a product) and development investments. It depends on the availability of capital and highly qualified, innovative workforce. In subsequent stages technical optimization takes place, which goal is to reduce production costs and to increase production volumes. Human capital becomes less and less important because mass production requires less qualified but cheap workforce. Therefore, it goes to peripheries and in the end it is removed from western countries and takes place only in developing ones (Barnick 2008, 33-35).

Both the above presented theories serve to explain those regional disparities that became evident in highly developed countries in the 2nd half of the 20th century. They confirm that economy of a successful Western city is based on innovation and modern technologies¹. On the contrary, cities with economies relying on traditional industries stemming from the Industrial Revolution time have smaller chances of changing their bad fortunes.

2.1.2. Spatial: deconcentration

Up to the 18th century cities used to be closed entities with clearly defined borders in a form of city walls, which served as a protection against the enemy. With a growing efficiency of artillery traditional city walls started to lose their function. As they became redundant and cities needed to grow in space, they began to be gradually demolished. Thus, since the end of the 18th century city areas’ enlargement could be carried out without greater constraints.

Intensive growth of inhabitants’ number, extending industrial plants and railway infrastructure were the reasons why the built up area of cities started to grow considerably during the 19th century. However, still their population densities remained on a high level, which negatively influenced living conditions there. Congestion combined with large air pollution caused that cities’ central areas ceased to be attractive places for living. They started to lose affluent

¹ Currently, many Western cities try to present themselves in marketing campaigns as places of location for very modern industries. It is well exemplified by the case of Copenhagen and Malmo which since 2000 have been promoting themselves as a world leading cluster of bio and medicine technology (Medicon Valley).

² Since the 1960s the birthrate lowered down considerably in most of the Western European countries: France

inhabitants, who were moving to villas outside the city, where living conditions were more pleasant.

This positive notion of urban edges became a driver for suburbanization which intensified after WW II. At that time also less affluent people could finance a house on the town edge, thus the process gained in scale. It was additionally fuelled by growing usage of cars, which highly eased mobility of people. Traditional cities built around older forms of transport lost their appeal in favor of less concentrated, easily accessible sprawl estates. This process has been particularly highly pronounced in the US cities.

In the 1980s it was recognized that urban growth and the growing population concentration in metropolitan areas were not ever continuing processes. Different theories were developed that served to explain these spatial changes. One of them describes the urban development as a cycle composed of four stages: urbanization, suburbanization, deurbanization and reurbanization (Van den Berg, et al. 1982). Urbanization stage is characterized by spectacular growth of cities that is driven by industrial take off, rapid growth of industrial employment and population increase. In the next stage, called suburbanization, spatial deconcentration begins. It is indicated by growth concentrating in the suburbs while the core is developing at a much slower pace or even begins to lose inhabitants and jobs. The move of residential function outside the city is followed by services, which further exacerbates the situation of the core city. The subsequent stage, deurbanisation, describes absolute deconcentration of population. Both, core city and suburban zones (metropolitan area) face population and employment decrease. People tend to move to smaller agglomerations, which are perceived as having a higher quality of life as opposed to deurbanizing metropolitan areas that witness many problems combined with rising unemployment, deteriorating facilities and services as well as lowering city revenues.

The last stage: reurbanization, which means a return to concentration, will not occur in every disurbanized metropolitan area. The shares of population and employment in the core city increase again in relation to those in the suburbs. However, the growth of population in the core city in the reurbanization stage does not lead to population explosion as in the urbanization stage. Contemporary high demands on quality of living and working exclude high densities. Therefore, large cities that lost population in the previous stages will not regain the highest population number observed in urbanization stage.

As a consequence of the above described deconcentration rural-urban dichotomy, which was so clear until the beginning of industrialization, is becoming vaguer. Defining city limits is further hindered by the fact that the latest technical and civilization innovations are nowadays accessible even in the most remote, rural regions.

2.1.3. Population decrease: demographic transitions

“Europe has been a pioneer of the great demographic changes that have taken place in the world over the past two centuries. Rapid population growth characterized the continent during the late eighteenth and nineteenth centuries while today the European population finds itself in a period of very low or zero growth (...)”

(Faus-Pujol 1995, 17)

Until the Industrial Revolution population development in Western Europe was kept on a relatively stable level. Its growth was hindered by high mortality that was a result of, among others, diseases, limited food resources and low standard in life quality. However, the technological and economic progresses that gained momentum in the late 18th century reduced these causes to a great extent.

Improving sanitary facilities within cities as well as the progress of preventive medicine and more accessible medical treatments were the reason upon which diseases were no longer spreading as quickly as before and they could be more often cured. Additionally, infant mortality was also greatly diminished. The introduction of machines into agriculture and some farming innovations resulted in the fact that food production became more efficient and a constant number of workers was able to feed more and more people. This growing number of agrarian products on the market allowed a rapid population increase in cities. At the same time, there was a growth of industrial and service products that contributed to the increase in the standard of life. This resulted in abruptly diminishing mortality, which, by birth rate remaining on a high level, led to population increase. Growing population required even more industrial, agrarian and service products, thus the growth of population and the growth of production were self-fuelling processes (Benevolo 1993, 781).

The process of abruptly diminishing mortality leading to intensive population growth is described by the first demographic transition theory. It has been gradually improved and nowadays a popular model consists of four phases (Holzer 2003, 20 - 22). The first phase is

characterized by a very high death rate (life expectancy <45 years) and birth rate (6 children per woman). The natural increase oscillates around 0. This phase is characteristic of populations living on a very low level of economic development. In Western Europe it occurred until the beginning of the Industrial Revolution.

In the second phase mortality is being successfully reduced for the above mentioned reasons. However, birthrate is still very high as habits and customs do not change so quickly. Due to largely reduced infant mortality the number of the young increases in the population and the base of the demographic pyramid is widening. At the turn of the second and third phase the natural increase is at its peak. The third phase is characterized by lowering birth rate that falls down quicker than death rate. Women work more often, their status changes, whereas economic value of children decreases and the costs of their upbringing increase. Concern about family and offspring also leads to declining birth rate. As a result, population in productive age grows more quickly than the young age population. It is assumed that such a demographic development contributed to acceleration of economic growth that took place in highly developed countries at the end of the 19th and the beginning of the 20th centuries (Bloom, Canning and Sevilla 2003, 49).

The second and third phase reflects sudden changes in the basic demographic indicators such as number of deaths and births and together they form a transition. In the fourth phase the number of births is approaching the number of deaths, thus in the end of the first demographic transition the natural increase is again low.

After 1945 fertility rates increased substantially in all Western countries. However, in the mid of the 1960s in nearly all Western European countries birth rate diminished to a very low value, much below the replacement level, and remained basically unaltered² since then. Basing on the observation of this phenomenon Van de Kaa and Lesthaeghe formulated the second demographic transition theory. Unlike the first transition, where the leading factor was the lowering mortality rate, in the second demographic transition the lowering fertility comes to predominance. Moreover, the second transition is characterized by a reduction of population while the first one was characterized by a rapid population increase.

² Since the 1960s the birthrate lowered down considerably in most of the Western European countries: France 2.9 to 1.8, Denmark from 2.6 to 1.5, Germany, from 2.1 to 1.4, Belgium 2.4 to 1.5, Spain from 2.5 to 1.3 (Faus-Pujol 1995, 22).

The second demographic transition was caused by an increasing individualism and a self-fulfillment aim. Founding a family and raising children ceased to be an attractive way of living particularly for women who started to prefer professional career.

This demographic shift in which fertility rate diminished drastically is assumed to have “a significant effect on economic growth” (Bloom, Canning and Sevilla 2003, 49) of highly developed countries in the second half of the 20th century. Nonetheless, it is expected that when this baby-boom generation reaches retirement age negative consequences for the economic development will occur.

Nowadays, highly developed countries with a high level of economic development are having very low birth rate despite the fact that these richer populations could raise more children. Specialized literature defines it as a demographic-economic paradox (Birg 2005, 112). This subsisting low fertility combined with a growing life expectancy causes the ageing of these populations. The more advanced it will be in the future the more it will be accompanied by profound social, economic and spatial changes.

2.2. Anglo-American discourse: “urban decline” and “resurgent cities”

The previously described changes in economic, spatial and demographic dimensions negatively influenced cities in highly developed countries in the second half of the 20th century. The city crisis on a mass scale was a subject of many discussions and became a topic of manifold professional articles. In different languages new terms were introduced to describe this phenomenon. These terms and their meanings mirror characteristic features of a city crisis in highly developed countries. Despite being on a similar, high level of economic development these countries have different history, market regulations as well as political and administrative systems that highly alter their urban developments. Consequently, terms referring to a city crisis developed in different languages may have a slightly different meaning.

As this work is written in English it is relevant to briefly present the discussion concerning the city crisis taking place in the US and the UK. The aim is to check whether Anglo-American term “urban decline” and German “schrumpfende Stadt”, later called “shrinking city”, could be used interchangeably.

The UK, where industrialization started the earliest, was also the first country to encounter the deindustrialization process on a large scale. Already in the 1950s economic crisis started to affect large cities created by the Industrial Revolution. In the US, the cities located in so called Rustbelt, whose economy was based on heavy industry, started to face a severe crisis as well. In order to describe these negative processes the term “urban decline” started to be widely used. It refers to undesirable changes resulting from a continuous reduction of employment accompanied by a population loss (Lang 2005, 2 - 4).

The urban crisis caused by changes in production was further exacerbated in the US by a decentralization of population, which was taking place on two levels: urban, as people began to move to suburbs, and regional, as they fled from cities with colder climate to those with a warmer one. Thus, the declining cities located in the Rustbelt (central part of the US) were confronted with the Sunbelt city growth on the West coast. It is important to note that the traditional European city did not face such an intense exodus to sun and sprawl (Glaeser and Gottlieb 2006).

These changes were most pronounced in the 1970s, which are now seen as the time of the deepest urban crisis in the US. At that time, major American cities in the Central and Northern part of the country were facing population losses, decline in incomes and housing price decreases (Glaeser and Gottlieb 2006). Similarly, in the UK the peak of an urban depopulation and job losses was about 30 years ago.

The turn of the 1980s marks the beginning of a general urban revival in the US and the UK. Cities population losses started to be less intense and some cities started to note a population increase. The most prominent example in this respect is New York that in the 1970s lost 10% of inhabitants and in the following decade regained them. The turnaround in residential real estate prices was even more dramatic. From the 1980s up to the financial crisis in 2008 urban housing prices rose rapidly in the US. In these decades urban revival was becoming more and more remarkable.

As a result, large cities in the UK and the US, which were in the first decades after 1945 perceived as places of economic, physical and social decay, started to be viewed more positively. There appeared in the literature the concept of urban resurgence. Although there are many differing definitions they all imply that it is a phase after a general decline (Cheshire 2006).

There are two main explanations of the observed urban resurgence in the US and the UK in the last three decades. Firstly, it was realized that large cities facilitate flow of knowledge and that they can be drivers of innovation and creativity. Hence, they can positively influence country's economy. Secondly, large cities ceased to be perceived as places of production, but instead they started to be viewed as places of consumption. This change was caused by rising incomes and educational level. Nowadays, the affluent and more educated inhabitants require higher amenities than the industrial workers in the past. Moreover, despite the predictions, new technologies did not manage to replace the need of a direct contact among people. Dense urban areas became more attractive as they facilitate social interactions and offer many other amenities (Glaeser and Gottlieb 2006, 1275-1276).

Glaeser and Gottlieb in the article "Urban resurgence and consumer city" explain resurgence as growth but not in all terms. It can take the form of a slowing rate of population loss, accompanied by rising incomes and housing prices (Glaeser and Gottlieb 2006). A similar attitude towards population decrease is held by Saskia Sassen who argues that fewer people often mean a more intense economic activity. Highly educated people with higher incomes demand more living space. They replace bigger, less wealthy households that move to less prestigious districts or to suburbia. Moreover, these wealthy people require much more space combined with amenities and services like shops, restaurants or offices (Sassen 2006). Consequently, the total population of a city may even decrease. Despite this fact cities can be successful in economic terms and continue to attract people with higher incomes (Marlet and Bosker 2006, 16). Thus, nowadays population decrease in the Anglo-American debate is not necessarily treated as a sign of the city crisis and it is not perceived as a threat to the city economic development.

The Anglo-American term "urban decline" is a phase in the urban development, after which growth anew is possible. Concepts of a total cities' dissolution like a "Disappearing City" by Frank Lloyd Wright from 1932 or a "Vanishing City" by Anthony Pascal (Pascal 1987) never received a greater attention. The renaissance of large cities in the US and the UK outshone the concepts of irreversible city crisis and even the issue of "urban decline", which is not that fatalistic.

2.3. German discourse: “shrinking city” (“schrumpfende Stadt”)

The German term “shrinking city” (schrumpfende Stadt), which will be in subsequent Part presented in detail, remains unknown in the Anglo-American urban discourse (Brombach, et al. 2005). It describes, similarly to “urban decline” a city crisis, which is indicated by a decreasing population and jobs’ number. However, unlike the Anglo-American term, which means a phase in the city development, “shrinking city” refers to the irreversible city crisis. Consequently, German discourse on the city crisis is more negatively connoted than the Anglo-American one.

A current discussion on the city crisis in Germany was caused by a dramatic state of cities in Eastern Germany that was acknowledged after the year 2000. However, the discussion dates earlier. It began in the 1970s and lasted until the turn of the 1990s (Brandstetter, Lang and Pfeifer 2005) in Western Germany. Similarly, in the GDR at the end of the 1980s a discussion on severe crisis of small towns and inner city parts was started (C. Hannemann 2004). Therefore, the discussion can be divided into two parts. The first one began almost parallel in Western Germany and in the GDR before Reunification. The second part started after the year 2000 and still continues today. It was intensified by publications concerning negative demographic development in Germany. These two parts are separated by a period of about ten years when the issue of the city crisis in Germany was not discussed.

In the following parts stages of the discussion will be presented in a detailed way as well as the reasons for which the issue of the city crisis was concealed in the 1990s. Focus is laid also on publications that had an important impact on the emergence and development of the “shrinking city” discourse in Germany.

2.3.1. Up to 1990: Western Germany: “shrinking” large city, the GDR: severe crisis of towns and inner cities

Western Germany

Rapidly decreasing birth rate which started in 1967, together with a negative migration balance resulted in a decrease of the Western German population, which commenced in 1972. The total population decreased in the period 1974-1986, from 62 million to 61.1 (Gatzweiler and Strubelt 1988, 198). This gave rise to a discussion on a “shrinking” population (Ger.

schrumpfende Bevölkerung), which was further intensified by demographic projections forecasting a deep population decrease (Brandstetter, Lang and Pfeifer 2005, 3 - 4).

This depopulation on a country level was intensifying the depopulation of the large cities, driven by strong deindustrialization and suburbanization processes. These changes exerted a negative impact on the city functioning:

“For over ten years cities do not grow any more, their populations decrease, unemployment increases, industrial plants stay empty as well as new social flats, urban wastelands is becoming normality, schools and swimming pools are being closed down, even the real estate prices are falling down, (...).”³

(Häussermann and Siebel 1987, 8), translated by A.C.

At the end of the 1980s sociologists Hartmut Häußermann and Walter Siebel introduced the term “shrinking city” into the Western German discourse on the city crisis (Häussermann and Siebel 1987), (Häussermann and Siebel 1988). Despite having been initially neglected their publications are regarded nowadays as the classic works in the field of urban crisis in Germany and they form a basis for the current part of the discussion.

Häußermann and Siebel based their findings on the analysis of large Western German cities with more than 0.5 million inhabitants. The 11 largest cities (without Munich) lost on average 14% of inhabitants in the years 1964-1985 (Häussermann and Siebel 1987, 27, 81). The Authors drew attention to the considerable change in the urban processes. Unlike in industrialization era, when large cities were growing intensively, since the 1970s their importance in the German settlement system has been decreasing. As main reasons for such a development they distinguished a spatial process of suburbanization and a process of deindustrialization (Häussermann and Siebel 1988, 49, 79).

However, despite depopulation occurring in every large Western German city, they noticed that two groups of cities could be distinguished. Although all of them were undergoing a deindustrialization process, the ones with cores in Munich, Stuttgart and cities in Rhein-Main Area had lower rates of industrial jobs and population losses than cities in the North and in the Ruhr Area. The former group of cities had higher percentage of workers in service sector and

3 „Seit über einem Jahrzehnt wachsen die Städte nicht mehr, ihre Einwohnerzahlen gehen zurück, die Arbeitslosigkeit nimmt zu, Fabrikhallen stehen leer, ebenso die neusten Sozialwohnungen, die städtische Brache wird zum gewohnten Anblick, Schulen und Schwimmbäder werden geschlossen, sogar die Immobilienpreise fallen (...)“

had also higher rates of increase in them than the latter. Their population losses were due to suburbanization, thus they were still embedded in a growing region. On the contrary, cities in the North and in the Ruhr Area suffered from a decreasing population mainly due to outmigration to prospering cities in the South. Thus, a clear division appeared between those cities which could deal with the problems resulting from deindustrialization (located mainly in the South) and those which were unable to handle the crisis (basically in the North of the country). In the latter group of cities depopulation values were much higher than in cities with prospering economies.

This divergent development was caused by a different economic basis of cities in these two groups. Southern Germany is the area with the greatest concentration of modern technologies in the country (Häussermann and Siebel 1987, 76). There are headquarters of many German big companies in Munich, Stuttgart and cities in Rhein-Main Area (e.g. Frankfurt/Main specializes in banking). This modern and diversified economic base of cities in the South helped them to adapt into new economic conditions where industry, heavy one in particular, was not playing the most prominent role any more. On the contrary, economies of the cities in the Ruhr Area and in the North were dominated by steel, coalmining and ship industry. Their economic bases were by far less diverse than those of cities in the South. Difficulties in restructuring and modernizing old industries, as well as unwillingness of modern technologies to settle down there (Part: 2.1.1) resulted in the fact that economic crisis of cities in the Ruhr Area and in the North was more severe and persistent.

This division of German large cities based on their economic performance was mirrored by the development of the real estate prices. The difference in price for investment land or for one family house between prospering cities in the South and cities with declining economy in the North was immense. In 1986, in Munich a house in an average location cost almost three times as much as a comparable house in Bremen. The prices in the period 1980-1986 grew in Munich by 28% whereas in Bremen they fell down by 14% (Häussermann and Siebel 1987, 89).

The observed South-North division was, according to the Authors, going to deepen in the future. This was not only due to the described above differences in the economic bases but also due to migratory moves between cities of these two groups. The migration of people led to a strengthening division into cities with highly qualified workforce (in the South) and cities with immobile and less qualified inhabitants (in the North). Thus, although every large

Western German city depopulated in the period 1975-1985, the Authors observed a growing polarization of cities into those prospering in the South and those undergoing substantial economic difficulties in the North (Häussermann and Siebel 1988, 82-83). It is important to note that Häussermann and Siebel approached cities' depopulation very cautiously. It was not treated as a clear determiner of a city crisis. This is proved by descriptions of Munich or cities in Rhein Main Area, which despite depopulation, were not automatically regarded as being in crisis.

On the basis of publications by Häussermann and Siebel a “shrinking city” could be defined as a large city that developed intensively during industrialization era. In the second half of the 20th century it started to face strong depopulation and a high reduction of job places. Its economy dominated by heavy industry is in crisis and new industrial investments do not appear. The increase of jobs in service sector is not sufficiently compensating their decrease in the industrial sector. The city economic crisis is further exacerbated by outflow of better educated and more qualified inhabitants into cities whose economies offer jobs to them. It is well reflected by the real estate prices, which are falling down considerably. Thus, worsening economic conditions and a continuous outflow of inhabitants is the reason why a “shrinking city” is a model of urban development where crisis is persistent and irreversible. This makes it different from other models presenting urban crisis (Glock 2006, 32).

Despite these features the Authors did not consider a “shrinking city” to be the opposite of a growing city. In their opinion it was to be an entirely new model of an urban development where a general decline would result in some positive social changes. New, alternative ways of living were believed to develop under difficult economic circumstances (neue Urbanität). Thus, although a crisis in the “shrinking city” was considered to be irreversible, it would not lead to a complete disappearance of the city:

“Admittedly the cities will shrink, some to currently hardly to expect degree, but most will be able to stabilize at a lower level.”⁴

(Häussermann and Siebel 1987, 118), translated by A.C.

Nonetheless, according to the Authors measures of maintaining growth at all cost may be harmful and may hinder the creation of new, alternative urban life forms. Such measures

⁴ „Die Städte werden zwar schrumpfen, einige in heute kaum vorstellbaren Ausmaß, aber die meisten werden sich auf niedrigerem Niveau stabilisieren können.”

would not be able to change a “shrinking” city into a growing one (Häussermann and Siebel 1987, 138):

*“However, the correction of profit allocation without jobs’ creation, only through higher transfers in favor of shrinking regions and unemployed would not be an adequate solution. There would be neglected the enormous psychological meaning that is assigned to professional work.”*⁵

(Häussermann and Siebel 1987, 162), translated by A.C.

Current findings based on the Eastern German experiences prove however, that the anticipated by Häussermann and Siebel positive social changes in the “shrinking city” are not taking place. Neither local planning and spatial policy nor inhabitants in the “shrinking city” are able to use its potentials as well as to develop them further (Göschel 2004). Nowadays, Eastern German cities’ economies rely more and more on state subsidies and are less and less able to develop their own economic base (Chapter 4).

At the end of the 1980s no crisis on the real estate market, as currently observed in Eastern Germany, was envisaged. Häussermann and Siebel in “Neue Urbanität” stated that:

*“Indeed, cities will be intensively losing inhabitants, but fewer inhabitants do not necessarily mean a lower demand on dwellings in a city.”*⁶

(Häussermann and Siebel 1987, 158), translated by A.C.

They justified this statement by giving an example of Frankfurt/Main, which during 10 years lost 8% of its population and at the same time the net dwelling area (ger. Wohnfläche) grew by 20%. The main reason for such a development was a growing households’ number. The Authors concluded that the housing demand is not diminishing in the same rate as the population is decreasing. In contrast, it can even be growing (Häussermann and Siebel 1987, 159). This conclusion is coincident with the opinion present in the current Anglo-American debate (Sassen 2006) which was discussed in Part 2.2. However, this rule was not confirmed in the case of Eastern Germany where out-migration and high overproduction of housing, by

⁵ „Doch eine Korrektur der Verteilungswirkungen des Wachstums ohne Beschäftigung allein durch höhere Transfers zugunsten der schrumpfenden Regionen und der Arbeitslosen wäre keine angemessene Lösung. Vernachlässigt wurde dabei die enorme psychische Bedeutung, die der beruflichen Arbeit zukommt.”

⁶ “Die Städte werden zwar massiv Einwohner verlieren, aber weniger Einwohner heißt nicht notwendig weniger Wohnungsnachfrage in einer Stadt.“ (Häussermann and Siebel 1987, 158)

low demand, caused huge oversupply on the residential market. Thus, the late 1980s positive description of a relieved residential market in a “shrinking city” (Häussermann and Siebel 1987, 149) turned out in Eastern German cities after 2000 to be very overestimated.

The GDR

The GDR was a country that was continuously losing inhabitants. It was probably the only case in the world where the country’s population was diminishing throughout its entire existence (Wolle 2003, 243). Between 1950-1990 the GDR lost 1.72 million inhabitants⁷.

1950	18 360
1960	17 188
1970	17 068
1980	16 740
1990	16 640

Table 1. Population development in the GDR, 1950-1990, source: (Hunger 1990, 22, 48)

In 1950 population number of the GDR accounted to 18.360 million. During the 1950s the number was decreasing mainly due to the outflow of people to Western Germany. Later, a negative natural increase became also an important reason for a decreasing population number.

The depopulation on a country level negatively influenced the demographic development of the GDR towns and cities (Part 3.3). However, documents dealing with urban or demographic problems in the GDR were rare due to present in all socialistic countries obligatory propaganda of success. Writing or talking in public about the ongoing city crisis was strictly forbidden. Such publications could first appear at the end of the 1980s when the socialistic regime was collapsing and when these problems became so large that they could not have been overseen anymore.

One of the major publications relating to the urban problems in the GDR was released in 1990 “Städtebauprognose DDR” (Hunger 1990), which was a final report concerning the GDR urban development. In this document there is a talk of a “shrinking process”:

“Shrinking process due to population decrease relates to, above all, rural communes and towns as well as traditional industrial agglomerations.”⁸

⁷ In other sources depopulation value of 2.02 million people is given (Wolle 2003, 243), (Hoscislawski 2004)

⁸ „Der Schrumpfungprozess infolge des Bevölkerungsrückgangs betrifft vor allem Landgemeinden und Kleinstädte sowie traditionellen industriellen Ballungsräume“ (Hunger 1990, 48)

(Hunger 1990, 48), translated A.C.

Thus, the word „shrinking” started to be used in relation to towns and cities affected by a crisis already in the GDR period. Later on it is referred to a difficult situation of the GDR inner city parts that was a consequence of a constant depopulation:

“While in cities with large inner city construction sites the number of inhabitants noticeably increased, in most of the cities the number of inner part inhabitants decreases in favor of the outer parts – a process which due to overall population decrease of most cities should be treated very seriously (because it is irreversible) and it underlines necessity of accelerated inner city revitalization.”⁹

(Hunger 1990, 125), translated A.C.

As far back as the end of the 1980s, the menace of depopulation of the GDR towns and inner parts of large cities was identified. It was noticed that it is highly unlikely to stop population decrease in many communes, because halting out-migration would not prevent further ageing of that population and resulting from that high death rate. This indicated that the problems of these urban areas were perceived in the GDR as irreversible.

The discussions on the city crisis in both German parts up to Reunification in 1990 bore some similarities. They began parallel as the outcome of a negative development of cities in Western Germany as well as towns and inner city parts of large cities in the GDR. Both discussions were highly influenced by the demographic development on a country level: the GDR was constantly depopulating, while Western Germany began to depopulate in the early 1970s.

Both presented publications remained known to only a narrow circle of specialists. They did not start a vivid discussion and they remained forgotten for the next couple of years. The population decrease in cities was not attracting a broader attention and it was not a topic of a public discussion. The population decrease at that time reaching 10-15% in some Western

⁹ „Während in Städten mit größeren innerstädtischen Neubaustandorte die Anzahl der Zentrumsbewohner spürbar anstieg, gehen in der Mehrzahl der Städte die Einwohnerzahlen in den Zentrumsbereichen weiter zurück zugunsten randstädtischer Standorte – ein Prozess, der aufgrund der allgemein rückläufigen Einwohnerzahlen der meisten Städte sehr ernst (weil irreversibel) zu nehmen ist und die Notwendigkeit forcierter Innenstadterneuerung unterstreicht. (Hunger 1990, 125).

German cities with more than 100 000 inhabitants, and combined with its age structure shifting, did not lead to any serious changes in space (Gatzweiler and Strubelt 1988, 204) after (Heinz 1988). It was thought that workers' qualifications are more important than their number or increase and population decrease in cities was considered, to be playing only an emotional role (Gatzweiler and Strubelt 1988). Such an attitude, presumably, dominated also in the GDR.

2.3.2. The 1990s: concealment of the issue

At the turn of the 1990s, the just commencing discussion on the city crisis in Germany was interrupted. This "tabooisation" of the issue, as it was later called (Grossmann 2007), had several reasons.

Population increase in Western German cities

First of all, after twelve years of decrease or very low growth, population in Western Germany started to grow intensively at the end of the 1980s. This happened despite a negative natural increase. It was driven by high in-migration. At the turn of the 1990s the migration balance reached the level of several hundred thousand persons a year. The peak point was in 1992 when it accounted to almost 600 000 (Eisenmenger, Pöttsch and Sommer 2006, 19).

Thanks to high immigration volumes, the demographic development of cities in Western Germany improved. It was particularly beneficial for the so far strongly depopulating centers of large Western German cities, where immigrants tended to settle down.

The fortunes of described as "shrinking" large Western German cities in Ruhr Area and in the northern part of the country further enhanced due to the inflow of inhabitants from the former GDR. The fall of the Berlin Wall in November 1989 made the movement from the GDR possible and fairly unrestricted. The people who were leaving the GDR were mostly young and better qualified, ready to start living in a different place. Thus, demographically stagnating large Western German cities profited from an inflow of both: foreigners and of young people from Eastern Germany.

Improving economic situation in Western Germany

The improving economic situation in Western Germany, which enabled large inflow of immigrants at the turn of the 1990s, was mirrored by the economic performance of cities previously described as being in crisis. Cities like Bremen, Gelsenkirchen, Hannover or Dortmund, where the jobs number had been decreasing since the 1970, noticed an increase in jobs (Glock 2006, 34).

Positive expectations for urban development in Eastern Germany

The collapse of the socialist regime and the German Reunification in 1990 brought a lot of optimism also in the field of spatial planning in Eastern Germany. It was expected that Eastern Germany, after a short period of help, would become a region with self-sustaining growth. Despite the fact that in socialism many Eastern German cities were already depopulating it was hoped that this negative trend would reverse after 1990. This way of thinking is well illustrated by the case of Leipzig, which was losing inhabitants throughout the entire GDR period:

“There was a hope after Reunification, that the negative developments of the GDR era were only a short term break of a long lasting growth process in Leipzig. Also urban- and regional research ascribed to Leipzig relatively good prospects for development during transformation from “plan to market”, as opposed to other cities in Eastern Germany.”¹⁰

(Glock 2006, 101), translated by A.C.

The urban development in Eastern Germany after 1990 was considered to follow Western German patterns, where polarization of prospering cities and of those in crisis was easily noticeable. The deindustrialisation was to affect also Eastern German cities leading to their division into losers and winners as in case of Southern Germany with München or Stuttgart counterbalanced by cities in Northern Germany. In Eastern Germany the expected poles of growth would pull the other regions and cities into crisis (C. Hannemann 2004, 75).

¹⁰ „Nach der Vereinigung gab es die Hoffnung, dass es sich bei den negativen Entwicklungen zu DDR – Zeiten nur um eine kurzfristige Unterbrechung eines langfristigen Wachstumsprozesses von Leipzig handeln würde. Auch in der Stadt- und Regionalforschung wurden der Stadt Leipzig, gerade im Gegensatz zu den anderen Städten in Ostdeutschland, relativ gute Entwicklungschancen in der Transformation vom „Plan zum Markt“ eingeräumt.“

It became clear in the mid of the 1990s that the economic regeneration in Eastern Germany is not satisfying and that cities in the former GDR are emptying. Despite this fact throughout the 1990s “shrinking city” remained a hardly used term. Christine Hannemann argues that this concealment of the “shrinking city” issue was driven by the fact that no politician found interest in it. “Shrinking” was not a positive topic to deal with. Additionally in social sciences the issue was not very popular as there dominated a “growth mentality” (C. Hannemann 2004, 75).

Urban regeneration in the US and the UK

Last but not least, an urban revival that in the 1980s was remarkable in the US and the UK, and further strengthened in the 1990s, was also expected to take place in Germany. Indeed, growing inhabitants’ number in cities of Western Germany and a high construction activity in cities of the former GDR could have been interpreted as an indicator of the city regeneration. Thus, the discussion on the city crisis, named “shrinking city”, seemed to be improper and out of place in the 1990s.

2.3.3. After 2000: reappearance of the “shrinking city”

The publication of a report that presented the dramatic situation on a residential real estate market in Eastern Germany (Pfeiffer, Simons and Porsch 2000) in year 2000 is regarded as a turning point from the former concealment phase. It stated that over 1 million flats in Eastern Germany were vacant and it was expected that this number would be growing (Pfeiffer, Simons and Porsch 2000, 19). As opposed to the previous phase of the discussion on the city crisis in Germany, when spatial problems did not play a greater role, this phase was reopened due to their great intensity.

The Authors noted that there are no experiences with dealing with such a development and conclude:

“New challenge means handling the shrinkage”¹¹

(Pfeiffer, Simons and Porsch 2000, 66), translated A.C.

¹¹ “Die neue Herausforderung heißt Umgang mit Schrumpfung“

The information on the number of vacancies in Eastern Germany appalled the public as well as the policy makers. Although it was clear before that cities in this area were depopulating and that there were more and more unoccupied buildings, the topic was being avoided in the public discussion. This report, by presenting the scale of the problem on the residential real estate market, showed that the issue needed not only to be discussed but also that measures had to be taken in order to act against its negative, constantly worsening, consequences.

The report was followed by manifold publications concerning the topic. Consequently, bibliography relating to the process of “shrinking cities” in Eastern Germany is nowadays very rich. It is not the purpose here to present all these publications but, what I believe to be, their two major findings.

Firstly, unlike the expectations from the beginning of the 1990s, which assumed that urban development in Eastern Germany would follow the Western pattern, in this part of discourse it is being admitted that “shrinking” of cities in Eastern Germany takes quite a different form from the one observed in Western Germany. Christine Hannemann argues that it differs qualitatively and quantitatively. Qualitatively, because the process is characterized by a very high intensity i.e. rapid depopulation and economic erosion, and quantitatively, because it has been affecting almost all cities and towns in Eastern Germany (C. Hannemann 2004).

Secondly, the assumption made by Häußermann and Siebel on the irreversibility of the crisis in the model of “shrinking city” is confirmed by current research on cities’ development in Eastern Germany. It is being admitted that “shrinking” of cities is not a passing stage in the urban development (Barnick 2008, 50). Similarly, Birgit Glock states that shrinking processes are not short, passing processes, but with all probability reinforcing long lasting distortions caused by deindustrialisation, suburbanization and birthrate decrease (Glock 2006, 13). Christine Hannemann also describes “shrinking” of cities in Eastern Germany as being characterized by “deeconomisation”, depopulation and deurbanization which together with the reduction of social privileges result in a downward spiral relating to all urban life spheres (C. Hannemann 2004, 97).

Demographic changes in the whole Germany had also a decisive impact for starting anew the “shrinking city” discourse. In 2003, German population, which accounted to 82.54 million¹² persons, started to decrease. Since that year the number of settling down immigrants has not

¹² 82 536680 persons, source: http://nui.epp.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en, accessed: 18. June 2009

been compensating the newborns deficit. Thus, worsening situation of cities in Eastern Germany collided with the overall decrease of the German population.

As opposed to the 1970s when Western Germany depopulated, current phase of population decrease is coupled by a very advanced process of ageing. After a sudden decrease of the total fertility rate at the end of the 1960s in Western Germany it stabilized in the mid of the 1970s at the level 1.4. Although nowadays there are countries where total fertility rates are even lower, like Spain or Italy, the drop in the number of births took place there two decades later than in Germany, which is named as a “pioneer of the lowest fertility” in Europe (Kaufmann 2005, 10). Therefore, consequences of the birth rate decrease in Italy and Spain are not as visible now as in Germany (Kaufmann 2005, 48).

Another factor differentiating these two depopulation phases in Germany is the growing role of foreigners that is not only caused by high immigration rates. In 1991 13% of children born in Germany had mothers with a foreign citizenship, whereas in 2004 this number increased to 18% (Eisenmenger, Pöttsch and Sommer 2006).

In the first decade of the 21st century some cities in Western Germany, mostly in Ruhr Area, started to face again some difficulties. Therefore, the “shrinking city” term started to be applied to them as well. Nonetheless, their situation is perceived as not as severe as in the cases of Eastern German cities. It is a widely held opinion that the process of “shrinking” of cities in Eastern Germany exceeds the one observed in the late 1960s, 1970s and 1980s in the old-industrial cities of Western Germany. Contemporaneously, urban development in Eastern Germany is treated as a forerunner for the urban development in Western Germany (Barnick 2008, 53).

2.4. “Shrinking city” – various interpretations

As “shrinking” of cities in Eastern Germany takes quite a different form from the one observed in Western Germany between the mid of the 1960s and the mid of the 1980s, new interpretations of the term appeared. This phenomenon is being presented as always existing in the history of cities as well as an international one. Its use is being also geographically and historically narrowed down. It is presented as resulting from socialist planning and post-

socialist transformation and it is applied to cities located in countries of Central and Eastern Europe. In the following, current interpretations of the “shrinking city” term are presented in detail.

2.4.1. “Shrinking city”: a city with a decreasing population

Population decrease in the Eastern German cities used to be very high in the last several decades. However, its real value is often being understated, either due to the enlargement of the city administrative area (this issue will be presented in detail in Part: 4.2):

“In many larger, old industrial cities population losses of the previous city area was even higher than reported but thanks to incorporation of surrounding communes it remains hidden.”¹³

(BMVBW; BBR 2003, 12), translated by A.C.

or by presenting the depopulation values in a vague way (MVBL LMV 2006)¹⁴. This shows that depopulation data are regarded as pretty embarrassing and attempts are made to reduce their values even in the official documents.

In case of the Eastern German cities there is a strong correlation of population decrease and negative changes in the spatial and economic dimensions. Hence, population decrease became an important determinant for a city crisis and a “shrinking city” started to be explained as a city with a decreasing population. Such an understanding of the term eased the presentation of “shrinking cities” as a global phenomenon.

“Shrinking city” = an ordinary, global development

“Shrinking” of cities means a permanent loss of inhabitants as well as continuously decreasing economic dynamic in many regions of Germany, Europe and the world.”¹⁵

¹³ “In vielen größeren, altindustriellen Städten waren die Einwohnerverluste des alten Stadtgebietes sogar noch höher als angegeben, was durch Eingemeindungen nicht sichtbar wird.“

¹⁴ This is well illustrated by an official report on urban development in Mecklenburg-Vorpommern. In the period 2000-2005, average towns’ depopulation in that region accounted to -4.3% (MVBL LMV 2006, 5). It is interesting to note that towns that had lower than -4.3% population losses were described as having favorable inhabitants’ number development (cit.: „Städte mit günstiger Einwohnerentwicklung“ p.7). Surprisingly, later in the report value -4.3% is treated as zero. Consequently, the values of population losses in towns described as with unfavorable population development are counted from -4.3%. In this way a town Eggesin is reported to have lost 16.9% in period 2000-2005 (MVBL LMV 2006, 18). However, the real value of its population loss was 21.2%.

(Haller 2004), translated by A.C.

Thus, shortly after re-launching the “shrinking city” discussion the phenomenon began to be treated as typical not only for Germany but also for other parts of the world. This approach is exemplified by a publication “Atlas of shrinking cities” (Oswalt and Rieniets 2006). It covered 350 large cities (with more than 100 000 inhabitants) worldwide that were reported to have lost a significant (i.e. total 10% or at least 1% annually) number of inhabitants since 1950 (Oswalt and Rieniets 2006, 156):

“The term ‘shrinking city’ first and foremost describes a symptom: population loss. A wide variety of processes and causes can be hidden behind this symptom.”

(Oswalt and Rieniets 2006, 6)

The Authors assumed that depopulation goes parallel with worsening economic conditions as in case of the German cities. This assumption is certainly true for cities in highly developed countries with advanced urbanization. However, it needs to be proved whether such a correlation exists in cities in developing countries, where urban and economic development is at a lower stage.

This simplified definition of the “shrinking city” term, where the only indicator is population decrease, is spreading. In the report “Shrinking regions: a Paradigm shift in Demography and Territorial Development” prepared by Directorate-General for Internal Policies of the European Union (DGIPU 2007) a concept of a shrinking region is being similarly defined as a “shrinking city” in the previously mentioned publication:

The concept of the ‘shrinking region’ is a recent one, even though this phenomenon goes back many years. What is essentially new here is that in some cases the phenomenon of depopulation has now come to affect entire regions, including urban areas (‘shrinking cities’).

• The very definition of the concept is still the subject of debate. Even if the phenomenon of population decline is linked to other events, such as ageing, it is preferable to stand by the simplest definition, which is the reduction in the number of inhabitants of a particular region over the course of a generation.

¹⁵ „Es geht also um die „Schrumpfung“ von Städten, um den dauerhaften Verlust von Einwohnern sowie die anhaltend nachlassende wirtschaftliche Dynamik in vielen Regionen Deutschlands, Europas und der Welt.“

(DGIPU 2007, iii)

This shows that even European Union institutions accept a simplified definition of “shrinking”, which means merely a population decrease. In this way many cities and regions are assumed to be in a crisis, without an in-depth analysis of their economic situation and spatial development.

“Shrinking city” = “urban decline”

The German term “shrinking city” and the Anglo-American term “urban decline” both refer to a city with a decreasing population and worsening economic conditions. However, they differ substantially in regard to duration of the crisis. The former describes a severe, irreversible crisis while the latter is merely a phase in the urban development after which growth is again possible. Despite this significant difference in meaning, in some German publications they started to be presented as synonymous and used interchangeably (Brandstetter, Lang and Pfeifer 2005, 1).

This understanding is present in a publication entitled “Shrinking Cities. Volume 1: International Research” (Oswalt 2005), which presented the results of the project “Shrinking cities” launched by Federal Cultural Foundation in Germany. The “shrinking city” was explained as a city with a decreasing population number and worsening economic conditions (Oswalt 2005, 10), without stating that the crisis is irreversible.

It included the analysis of four cities: Detroit (US), Manchester (UK), Ivanovo (Russia) and Halle/ Leipzig (Germany). Each of the first three cities was exemplary for one of the processes: suburbanization, deindustrialization and post-socialist transformation, while Halle/Leipzig was presented as affected by all of them. Additionally, some other cities, notably from Asia, were also described, but in a less detailed way. All of them were called “shrinking”. The most important message drew up in this analysis was that “shrinking cities” are an international, growing phenomenon.

However, there are some inconsistencies within the produced analysis. Leipzig area namely, due to incorporation of surrounding communes, includes also suburban zones (this will be discussed in Part: 4.2.2) while other cities consist in their administrative boundaries only of a core city. This results in understating of the population decrease in the Eastern German city, which is reported to amount only to 6.3% in the period 1990-2002 (Oswalt 2005, 499). On the contrary, Detroit and Manchester are embedded in an intensively growing metropolitan areas,

which is not the case of Halle/ Leipzig. Such intensively growing surrounding area in economic and demographic terms is not a determinant for a “shrinking city”, as it was already highlighted in the examples of Munich and Rhein Main cities by Häußermann and Siebel (Häussermann and Siebel 1987)

The population decrease for Detroit and Manchester was counted from the year 1950 and 1931 respectively. It remained unanswered why Leipzig’s depopulation was calculated from 1990 while it was constantly depopulating between 1930-2000. As a result, the gravity of the city crisis in Halle/ Leipzig is largely reduced in relation to other cities in the world and the central idea of the project that urban development in Eastern Germany is ordinary and found elsewhere in the world could be reinforced.

“Shrinking city” = always present in the history of urban development

Nowadays, the phenomenon of “shrinking cities” in Eastern Germany is regarded as always present in the history of urbanization (Benke 2006), (Rieniets 2005, 20-21). Indeed, throughout the history of urbanization cities were depopulating. Some cities disappeared completely, while others redeveloped. Nonetheless, as presented earlier in this Chapter, the contemporary depopulation is triggered by deindustrialization, decentralization and demographic changes. None of these processes was present before the 20th century. Therefore, “shrinking city” is characteristic for the modern times, not for a distant past and the current crisis has no reference in the past.

2.4.2. “Shrinking city”: outcome of socialist planning and post-socialist transformations

It is a widely accepted idea that the development of Eastern Germany during the socialism was typical in the block. Moreover, the processes that occurred in Eastern Germany after 1990 are supposed to repeat in other post-socialist countries. These beliefs are supported by depopulation of cities in post-socialist countries. Therefore, the phenomenon of severe city crisis in Eastern Germany is expected to be taking place in those countries as well and it is being explained as resulting from socialist planning and post-socialist transformations. In this way, next to the interpretation of the „shrinking city“ as a global phenomenon, a new interpretation appeared: “shrinking city” as the outcome of post-socialist processes. Thus,

socialist past is becoming an important determinant of a “shrinking city” and the phenomenon gets geographically and historically narrowed down.

“Shrinking city” = post-socialist city

Basing on the experiences of Eastern Germany after Reunification Christine Hannemann drew the conclusion that cities in Eastern Germany did not undergo transformation from a socialist city not into a capitalistic one, but directly into a “shrinking” one (C. Hannemann 2004, 82). She bases her assumption not only on demographical data but also on analysis of the economic development in Eastern Germany after 1990, which she summarizes as the “economic erosion”.

Similar idea is present in a paper by Vlad Mykhenko and Ivan Turok entitled: “Shrinking Cities: East European Trajectories 1960-2005” (Mykhenko and Turok January 2007). The Authors analyzed population numbers of 150 cities with over 200 000 inhabitants during a period 1960-2005 in Central and Eastern Europe. However, as opposed to Hannemann’s approach, in this paper the only determinant for calling a city “shrinking” was a population decrease, as in the earlier presented publications:

“Shrinking cities are those characterized by a decreasing population, (...)”

(Mykhenko and Turok January 2007, 21)

The lack of analysis of the economic performance of cities was due to the unavailability of reliable economic data on the city level and also due to the assumption that city’s population development is linked with economic changes (Mykhenko and Turok January 2007, 4-5).

The Authors underline the fact that since the mid of the 1990s most of the Central and Eastern European cities have had decreasing populations, for the first time since 1945 (Mykhenko and Turok January 2007, 24), with the exception of the GDR cities, many of which were depopulating in the socialism (Mykhenko and Turok January 2007, 19) . The scale of cities’ depopulation in Eastern Europe is reported in the paper to be “*at least three times as fast as the one suffered by the West in the early 1980s at the peak of deindustrialization*“ (Mykhenko and Turok January 2007, 25).

The Authors conclude their findings by stating that:

“The reality of urban recovery and expansion in the East is extremely uneven and greatly overstated.”

(Mykhenko and Turok January 2007, 45).

Hence, it is suggested that urban development in this part of Europe is facing nowadays tremendous difficulties, which are far more intense than the difficulties cities in highly developed countries witnessed in the 1960s, 1970s and 1980s.

This idea is present in many other publications (DGIPU 2007), (Oswalt 2005). On the basis of sheer population decrease and without more advanced analysis the crisis in cities of post-socialist countries is identified. Therefore, the conviction that city crisis results from socialist past and post-socialist transformations is spreading.

“Shrinking city” = socialist city

As opposed to the above-presented attitude, in which shrinking is linked with post-socialism, in this one it is being described as already present in the socialism.

Carsten Benke, on the basis of depopulation of many towns and cities, states that the GDR was already a country of “shrinking cities” (Benke 2006). Similarly, Celina Kress distinguishes two shrinking phases in Eastern Germany: the first in the socialism and the second after 1990 (Kress 2008). Again, in both examples, the only determinant for calling a city as “shrinking” is the decrease of its population.

This understanding of the term is recently getting very common and the GDR urban development is treated as typical and exemplary for other countries in Central and Eastern Europe, including Poland:

“Urban shrinkage is not in fact a new phenomenon in East Central European cities, and has not only arisen in the post-socialist transition. Since the end of the 1970s, old industrial cities in Poland like Łódź, and cities in the Upper Silesian industrial area have been experiencing population decline”

(Großmann, et al. 2008, 90)

In the following Chapters the urban development of Eastern Germany and Poland will be thoroughly investigated. The purpose is to find out whether the Eastern German urban development can be treated as exemplary for the other post-socialist countries and whether the above presented explanations of the “shrinking city” term are justified.

2.5. Interim conclusions: “shrinking city” – not a new phenomenon in Germany

The fastest development of cities in highly developed countries was observed during the industrialization era, throughout the 19th and at the beginning of the 20th century. Enormous technological progresses led to great demographic changes, the major one of which was a decrease in mortality. High demand on workforce and growing efficiency in agriculture caused a great migration from rural to urban areas. As a consequence cities in the West were growing at an unprecedented pace and they became extremely densely populated areas.

With the beginning of post-industrial phase in highly developed countries these processes were replaced by some others. High urbanization levels that were reached by those countries in the mid of the 20th century remained basically unaltered in later time. However, cities in the West were still undergoing substantial changes, although a rapid urban growth was not any more present. The traditional industrial production started to be moved to less developed countries. Cities with heavy industry as an economic base began to suffer from jobs' number decrease and population outflow. There began a polarization of cities, into those able to adapt to new economic conditions and those trapped in a crisis. Parallel a growing decentralization of cities population in form of suburbanization could be observed. Traditional walking city was replaced by cities designed entirely for car users. As a consequence their densities are now much lower than they used to be in the 19th century. Demographic changes have been also very pronounced. In the post-industrial phase the low mortality started to be coupled by a very low fertility. This resulted in a population decrease of many Western cities.

These economic, spatial and demographic processes observed in highly developed countries in the second half of the 20th century started to negatively affect many cities. It is not surprising that a discussion on the issue of the city crisis was begun. In different languages terms relating to a city affected by a crisis were developed. In the English language it was “urban decline” while in the German one “schrumpfende Stadt” = “shrinking city”. Despite the fact that both indicated a city with a decreasing population and worsening economic conditions these two terms are not synonymous. In the Anglo-American debate city crisis is perceived as a phase in the urban development after which growth is possible, while the founders of the term “shrinking city” viewed the crisis as irreversible. The parallel discussed in the GDR “shrinking processes” in cities were similarly perceived as highly unlikely to change.

Despite the begun at the end of the 1980s in both German parts a discussion on the city crisis, in the 1990s the great problems of Eastern German cities were treated as non-existing. Only, after 2000, the huge number vacant flats, and other real estates, in the Eastern German cities brought back the term “shrinking city” and made it very popular. This new phase of the discussion on “shrinking cities” was additionally strengthened as the German population started to decrease again in 2003.

The current part of the “shrinking city” discussion is ambiguous. On one hand, it is admitted that “shrinking city” is a model of urban development where crisis is irreversible. On the other hand, stating this basic feature is being avoided and the meaning of “shrinking city” is being transformed in order to make it applicable to a larger number of cities. In this way the gravity of the Eastern German urban development is diminished and it is presented as an ordinary path of urban development found elsewhere in the world and already existing in the past. It is treated as exemplary for the urban development in the post-socialist countries. Therefore, the “shrinking city” term is being used in reference to all cities with decreasing population, particularly to those located in Central and Eastern Europe. In the following Chapters it is going to be checked whether urban development in Eastern Germany is typical for countries in Central and Eastern Europe.

3. Origins of “shrinking cities”

Finding out what a “shrinking city” is requires analyzing the urban development of Eastern Germany not only in recent times but also in a wide historical perspective and an international context. In this Chapter the focus is laid on analyzing urban processes in the area of Germany and Central and Eastern Europe up to the collapse of the socialism. Eastern German cities developed for centuries under the same conditions as those in the Western part of the country. This changed totally in 1945, when Eastern Germany became a Soviet zone and consequently had to accept the socialist system¹⁶. For 45 years Eastern Germany was cut off from the West and belonged to an area that had very different conditions for the urban development. As a consequence Eastern German urban development diverged from the Western pattern.

This Chapter is divided into three parts. The first one (3.1) describes urban development in Germany. The second part (3.2) concentrates on urban development in countries of Central and Eastern Europe. Part three (3.3) presents the development of the GDR. In this Part the respective data on the urban and demographic development in Poland are also presented. Finally, conclusions are drawn.

3.1. Urban development of Germany

Both Eastern and Western German cities were developing under similar influences until 1945. This development is presented in the first Part. The second Part concentrates on the urban development in Western Germany after 1945.

3.1.1. Until 1945: one development path of Western and Eastern German cities

Some cities in Germany were already founded by the Romans. Although this early urbanization was not as strong as in the Southern Europe it resulted in the creation of several important urban settlements (Colon, Munich). A dense urban network developed in Germany as well as in other Northern and, to a lesser extent, Eastern European countries in the Middle Ages. Particularly the period 1050-1350, which was characterized by a relative political stability and a high demographic growth, abounded with new cities foundations in the

¹⁶ The GDR came officially into existence in 1949

mentioned areas (Benevolo 1993). Already at the end of the 14th century Germany had a very well developed urban network, which formed a skeleton for the rapid urban development in the 19th century.

Industrial phase

Industrialization led to a dynamic transformation of existing cities and a foundation of plenty of new ones. Jürgen Reulecke distinguishes five phases of the modern German urbanization process (Reulecke 1985). The first phase started at the end of the 18th century and lasted until the mid of the 19th century. In this period, political and legislative bases for later changes were introduced. These included the abolition of traditional impediments to spatial as well as social mobility over the German States. At the same time, the cities started to change substantially. Their traditional feature of being closed and differentiated from the surroundings was gradually reduced as they began to open to new settlers and expanded their territories. At the end of the 18th century the demolition of city walls and filling in moats began. A vital impulse for increasing traditional city built up area was made by railway constructions that began in Germany in the 1840s.

The population began to grow due to lower mortality rates of newborns, which resulted from better hygiene and the abolition of constraints to marriage among lower social classes. Agriculture became more productive, which enabled the surplus of farmer workforce to migrate into cities. Cities like Eberfeld and Barmen were the first to grow intensively, doubling their inhabitants' numbers between 1810-1840 (Reulecke 1985, 22).

Nonetheless, the growth of urban population in this phase was proportional to the overall population increase: in 1816 in Prussia 27.9% of population lived in urban settlements while in 1849 this share amounted to 28.1% (Reulecke 1985, 31).

In the second phase which started in the mid of the 19th and lasted until 1871, a clear growth in the share of urban population could be observed. However, this growth could have been much higher if new industrial plants had been able to employ all people willing to work. As there were not enough jobs for newcomers in cities a huge out-migration to the US began. Only in years 1850-1860 1.1 million people left Germany. Until the end of 19th century the out-migration amounted to over 5 million (Reulecke 1985, 41), despite a dynamic industrial development in Germany.

After 1871, in Germany a phase of mature industrialization began, which was characterized by unprecedented industrial development. In this phase a total transformation of the German urban system took place and Germany became a highly urbanized and industrialized country (Reulecke 1985, 68). Two events contributed to the emergence of this great urban, economic and demographic growth: the victory over France (Germany received high war reparations) and the Unification of the German States, both in 1871.

Industrialization at this phase was combined with the greatest population increase in the German history. In 1871 the population of the German Reich accounted to 41 million whereas in 1910 it reached 65 million (+24 million), despite the already mentioned high out-migration to the US. This rapid population growth was brought about by a very high natural increase. However, after 1900, fertility rate started to decline very fast. This triggered a discussion on the issue of decreasing fertility and its influence on the future of the German population already before WW I (Reulecke 1985, 69).

In 1871 the share of urban population in the German Reich accounted to 36% (14.75 million). In the following years an intensive urban development took place due to great population increase, combined with its high mobility and intensive industrialization. By 1910 the population living in cities reached 60% of the overall number (39 million) (Häussermann and Siebel 1987, 24). Hence, during nearly 40 years, urban population in Germany (mostly of large cities) increased almost three times.

Germany	1871	1910	39 years
Population development	41 million	65 million	+ 24 million + 158%
Urban population	14.75 million	39 million	+ 24.25 million + 264%
Share of the urban population	36%	60%	+ 24%

Table 2. Urban and demographic development in Germany in period 1871-1910, Source: (Häussermann and Siebel 1987)

Large cities (over 100 000 inhabitants) grew particularly quickly as their population increased from 4.8% to 21.3% and their number grew from 8 to 48 (Reulecke 1985, 68). Their outstanding feature was youth. In 1890 76% of people living there were under 40 years old (Häussermann and Siebel 1987, 24-25). Thus, large cities became demographically younger than rural areas. However, these large cities had also different demographic profiles. At the end of the 19th century in traditional capital or trade cities like Berlin, Munich, Hanover or Hamburg 25% of population was less than 15 years old and only 5% was aged over 60. In

newly created cities that were based on industry such as Oberhausen or Gelsenkirchen, the share of inhabitants under 15 years reached even 43%. In such cities not only inflows of new inhabitants but also a very high birth rate was contributing to the overall population increase (Reulecke 1985, 77).

“Founder’s Epoch”

A period of a rapid economic, demographic, and urban development that lasted in years 1850-1910 is known in the German history, as the “Founder's Epoch” (ger: “Gründerzeit”). A high population increase in cities and their quick economic development resulted in a huge construction activity.

New industrial cities, like those in the Ruhr Area, were developing very fast and suffered from uncoordinated city growth. The authorities of those cities were neither prepared for facing such a dynamic development nor did they have sufficient knowledge on how to plan so intensively growing cities. This task was partially taken over by owners of big companies, who built residential estates for their workers, which were located in the vicinity of industrial plants. However, as these estates were not embedded in a long-term city development perspective, such cities are characterized by a fairly scattered urban structure, often without well-developed city center.

In older cities the situation seemed to be better as the population increase was less dynamic and the economy was less relying on, highly altering space, industry. Moreover, they had well shaped city center, which dated back to the Middle Ages. Such cities included those where economy apart from industry, was also based on trade and administration (like Berlin, Leipzig, Dresden, Erfurt) but also smaller cities without industry functioning as cultural centers and residences (like Weimar). These cities were facing a spectacular growth in the built structure; however, it was more coordinated than in new industrial cities. The urban structure which was created in those cities starting from the second half of the 19th century until the beginning of the WW I is called the “Founder’s Epoch” belt (ger: “Gründerzeit Gürtel”) or “Founder’s Epoch” district (ger: “Gründerzeit Viertel”). These areas surround the old city or are located on the axis city center - railway station. They are characterized by a traditional urban design, with frontage development and clearly shaped streets. These vast 19th century residential estates still form a large part of the contemporary housing stock in the Eastern German cities (Part 3.3.4).

Post-industrial phase

Reulecke states that in Germany urbanization driven by industrialization was over by 1914. In his view WW I marks the beginning of the 4th phase of the modern urbanization process in Germany, which is characterized by a slowdown in the growth of cities. Migration into cities substantially decreased and some cities started demographically to stagnate at that time (Frankfurt/Main, and textile industry based cities like Barmen, Eberfeld or Krefeld) (Reulecke 1985, 148). Although growing cities still existed, their population increase was much slower than before. This process was also evident in Eastern Germany. In the 1930s, all major cities in Saxony and Saxony-Anhalt: Dresden, Leipzig, Chemnitz, Plauen and slightly later Magdeburg began to lose inhabitants. Cities in other Eastern German states, which were less urbanized, had still growing, though not spectacularly, populations. Thus, the in-between war period meant a new phase in the German urban development in which growth was no longer the most prominent feature.

3.1.2. Development in Western Germany after 1945

In the first two decades after 1945 Western Germany experienced a fast demographic growth from which cities largely profited. However, unlike in period before WW I when natural increase was crucial for the demographic development, after 1945 it was mainly made up by immigration. In period 1950-1961, the German population grew by 6 million persons (12%) who were in large part fugitives from the newly created Soviet zone: the GDR (Gatzweiler and Strubelt 1988). In these time frames population growth in Western German cities was three times higher than that of the whole country (Häussermann and Siebel 1987, 25). From a planning perspective this period was characterized by enlarging of a city structure (ger: Stadterweiterung).

In the following decade, 1961-1970, the population growth accounted to 4.5 million persons (8%). Exceptionally in this period, a natural increase was playing a greater role than immigrations (Gatzweiler and Strubelt 1988, 197). A growing economic prosperity resulted in the commonly known “baby boom”. After the total fertility rate reached its highest value at 2.5 it started to decrease in 1967 (Eisenmenger, Pöttsch and Sommer 2006). It stabilized in the mid of the 1970s at the level 1.4 and basically remained unaltered until today.

Since 1961 the growth of urban population has stagnated, until 1970 it amounted to only 1.1%. At the same time population of city surrounding areas grew by 22.3 %. The move of city dwellers to the urban edges was largely shaped by specific urban policies. They meant inner cities mainly for job places and not for residential function. Some big cities were even financially supporting surrounding communes so that they could build dwellings in their areas (Häussermann and Siebel 1987, 27-28).

Despite measures to keep job places in inner cities, in the 1960s the move of companies to the suburbs started. The previous pattern of agglomeration growth known as concentrated growth (Ger.: konzentriertes Wachstum) started to be replaced by so called decentralized concentration (Ger.: dekonzentrierte Konzentration). It meant that the growth was concentrating on the agglomeration edges, avoiding its core, but agglomeration as a whole was still growing (Häussermann and Siebel 1987, 29).

Already at the beginning of the 1960s some large cities (with more than 500 000 citizens) in Western Germany, mostly in the Ruhr Area, started to lose inhabitants. Since 1975 all large cities have been losing inhabitants (Häussermann and Siebel 1987, 80). The turn of the 1970s is considered by Reulecke to be the starting point of the 5th phase in the German urban development, however, he did not described it as being characterized by a crisis (Reulecke 1985, 167).

3.2. Urban development in countries of Central and Eastern Europe

The differences in urban development between the countries of Central and Eastern Europe and those in the West are explained as being the result of 44 years of socialism. Such a view suggests that urban development in both parts of Europe was basically the same until the outbreak of WW II. In this way many deep differences that existed in the past are overseen. It is worth asking why Central and Eastern Europe's economy relied more on agriculture, why there were fewer cities and finally, why industrialization on a large scale appeared first during the socialism. After having presented these issues, focus will be laid on the socialist urbanization and industrialization. Substantial differences between capitalist and socialist urbanization will be presented. Finally, rapid urbanization of Poland will be discussed.

3.2.1. Historical background

Urbanization did not proceed equally throughout the European area. For centuries, the process of cities' development in Central and Eastern Europe lagged behind the one in the South Western part of the continent.

The creation of the urban network started in the Central and Eastern Europe first in the Middle Ages. However, this medieval urbanization process began later than in Western Europe, and it was far less intense as well. A single area where dense urban network developed at that time included: Saxony, Thuringia, Bohemia, central part of Moravia and Silesia (Enyedi 1996, 106-107). Later, in the 19th century, urbanization driven by industrialization concentrated also in this area.

The division into the Eastern and Western part of Europe became even clearer in the 16th century when the so called in the Polish literature; "economic dualism of Europe" began. A growing urban population in Western Europe substantially increased the demand on cereal that could not be covered by crops within the area. On the contrary, far more rural countries of Central and Eastern Europe were able to produce more cereal. It was quickly understood by farm owners in the area, formed by the gentry, that selling cereal might have brought a lot of profit. They restructured their properties into more productive ones and started to specialize in the cereal production. As a result manorial farms became the most important economic institutions in Central and Eastern Europe in the 16th century (Hryniewicz 2007, 99-101) and they retained this function for the next three centuries.

This growing importance of the rural areas in the economic development of Central and Eastern Europe negatively influenced urban development. Cities were deprived of political independence, the middle class was very weak and poor. The gentry were reluctant to make any investments in cities. Many of them became impoverished and a general urban development was very slow in comparison to the one found in Western Europe at the same time. Thus, the division of Europe into Western – more urban and Eastern – more rural parts was the outcome of a very different economic development, which was even strengthened later on.

Another reason for diverging paths of urban development between Western and Eastern Europe was a different social system. In the West peasants obtained significant freedom by the end of mediaeval times. The peasants were in far smaller extent bound to the land they

cultivated and they could migrate into cities. In this way wage-labor in the West was established and entrepreneurial economy could develop. Middle class in the West was also much more influential and important than its counterpart from the East.

On the contrary, in Central and Eastern Europe political dominance of the landed gentry led to the marginalization of other social classes and, in the end, to half slavery conditions of peasants in the process called “renewed feudalization”¹⁷. Two opposite types of behavior: managers (gentry) and workers (peasants) started to be created. The former was entitled with an absolute power, while the latter had to be slavishly obedient. The gentry bound peasants to the land. The workforce was namely much desired but accounted limited numbers and therefore the gentry wished to keep the peasants in their properties. As a consequence peasants could not migrate into cities and not even between villages (Wawrowski 2010, 119).

The efficiency of a feudal production was very low and in fact it was decreasing over time. However, compulsory work by subjected peasants did not generate costs in production, therefore there was no impulse for increasing efficiency by introducing new technologies. The gentry were increasing profits not by introducing innovations but by increasing burdens on peasants (Wawrowski 2010, 121-123), which led to a great impoverishment of this social class.

The strengthening position of the gentry and nobles had also a negative influence on the cities’ development. Cities could not expand their production because the market for their products was very much limited. Possible clients were nobles, who however, as affluent people could afford more sophisticated and expensive products from abroad. Peasants, who lived in great poverty, could barely buy anything from the city production. Therefore, craftsman production in the Central and Eastern European cities could not evolve into manufacturing. More manufactures were founded for the first time in the second half of the 18th century, the time when Western Europe was entering the industrialization era (Wawrowski 2010, 119).

As a result of the earlier abolishment of serfdom and replacement of peasants by a class of farmers, industry and trade could develop in Western Europe. In Central and Eastern Europe due to the second feudalization since the 16th century and the introduction of archaic social system, much less favorable conditions for the trade and production were enabled. It

¹⁷ First privileges for the nobles, which were later on substantially expanded, were introduced in Poland already in the late Middle Ages.

weakened the middle class (ger. Bürgertum) to such an extent, that they could not through its political weakness, demand any substantial changes as the middle class in the West could. Thus, while in the West the middle class (city dwellers) was playing a crucial role, the East was absolutely dominated by the nobles, who lived in the countryside.

From rural to urban countries

None of the Central and Eastern European countries was independent throughout the 19th century, the time when Western European countries faced spectacular development resulting from the Industrial Revolution. The region was dominated by 4 powers: Russia, Prussia, the Habsburg and Ottoman empires. Despite regaining independence by these countries after WW I intensive industrialization and urbanization did not take place. As a matter of fact, urbanization and industrial development were sluggish in the 1920s and stagnating in the 1930s (Andrusz 1996). Consequently, in Central and Eastern Europe industrialization and modern urbanization were late, and very slow. In 1950 the region was overwhelmingly rural: the share of the rural population was over 80% in Bulgaria and Yugoslavia, over 70% in Romania and Poland, and 60% in Hungary (Enyedi 1996, 109).

Socialist planning objectives

Since, as presented above, socialist countries in Europe, apart from the GDR, were economically backward in comparison to the West, one of the major objectives of socialist planning was to catch up with it in terms of industrial and urban development. Cities development was supported, and the migration from the villages was presented as a “social promotion”. In this way, the so far agrarian populations in newly created socialist countries were to be transformed into urban ones. Cities enjoyed the advantages in the allocation of development funds by the central planners, while rural areas were neglected (Enyedi 1996). The insufficient facilities and the lack of infrastructure improvements in villages constituted a strong push factor for the rural population to move. Particularly young people were willing to leave those areas.

Rural areas in countries of Central and Eastern Europe, which did not belong to the Soviet Union, with the exception of the GDR, were not managed to be collectivized. They remained in majority privately owned. Nonetheless, rural population was forced to pay heavy taxes and to deliver foodstuff compulsory. As a result, it remained generally reluctant to the imposed political system. The socialist propaganda presented farmers, particularly those wealthier

ones, in a very negative way¹⁸. On the contrary, cities were favored by socialist regimes. This was not only due to the fact that cities were a visible sign of successful industrialization. Urban areas were managed in all countries to be nationalized, at least in a large part. Therefore, it was easier to control their spatial development and to steer it according to the socialist principles. Moreover, the working class living in cities was supposed to support the imposed system. As a result cities were also perceived to be more controllable in social terms.

Rapid urbanization in socialism

Throughout the socialism, cities faced a rapid growth. Unlike in the in-between war period when urban development concentrated mostly in the capital cities, in the socialism, particularly during the 1960s, 1970s and 1980s priority was given to the medium sized cities. As a result an excessive overweight of the capital could be reduced and a more balanced urban network was created (Planet 2000, 25-26), which is nowadays a characteristic feature of post-socialist countries.

As a result of the very intensive urbanization in the socialism, nowadays the shares of urban populations in post-socialist countries are comparable with those in the West:

	Share of urban population in 2008 in %
Belarus	73,0
Bulgaria	70,0
Czech Republic	73,1
Hungary	68,0
Poland	61,0
Romania	54,0
Russia	73,0
Slovakia	56,0
Ukraine	68,0

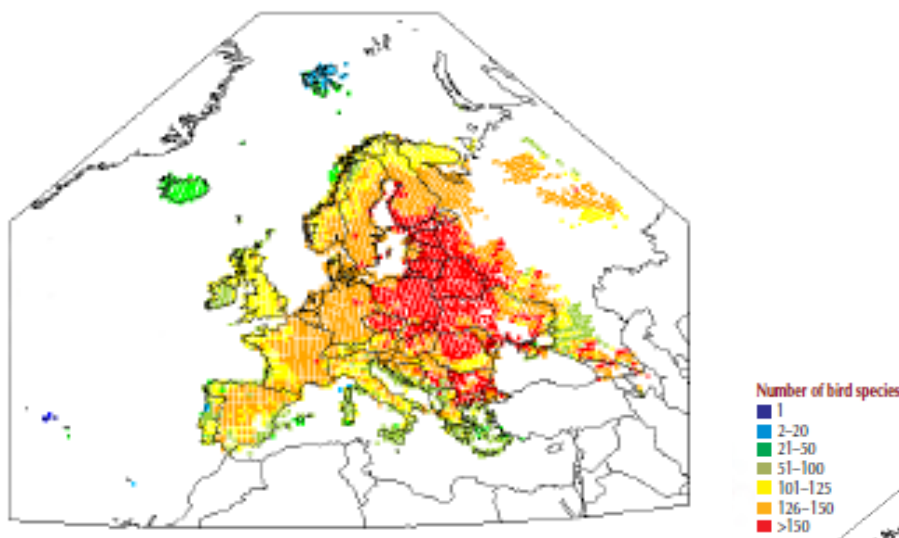
Table 3. Shares of urban populations in % in Central and Eastern European countries in 2008. Own presentation based on data from: www.eoearth.org/article/Urbanization_RatesofCountries, assessed on February 24, 2010

Therefore, from a quantitative point of view, there is no substantial difference in the rate of urbanization and in the network of larger cities between Central Eastern and Western Europe. However, both these areas differ when the number of towns (with less than 30 000 inhabitants) is concerned. As a result of a less intense urbanization process in medieval times their number, population and relative importance is lower in the Central Eastern than Western part of the continent (Planet 2000, 27). Therefore, Central and Eastern European urban

¹⁸ “Kulak” – a very pejorative name for a wealthy farmer in socialistic countries (apart from the GDR). Kulak was presented by socialistic propaganda as exploiting poorer farmers and being an enemy of the workers.

network is dominated by medium-sized and large cities, which developed intensively during the socialism.

This lower cultural heritage in Central and Eastern Europe is compensated by a greater biodiversity. As this area was less transformed by a man natural enclaves survived, unlike in Western Europe, where such areas hardly exist nowadays. The area of Central and Eastern Europe is much richer in animals' and plants' habitats than the Western part of the continent (Picture 6).



Picture 6. Number of bird species in Europe at present, source: (BirdLife International 2008, 16)

3.2.2. *Differences between capitalist and socialist urbanization process*

According to Ivan Szelenyi cities under the socialism developed differently from those in the West (Szelenyi 1996). In his opinion urbanization in the socialist countries located in Central and Eastern Europe followed a different path from the one that could have taken place if that region had followed a Western trajectory of development after 1945.

Szelenyi argues that in comparison to the countries in Western Europe, the countries in the socialist block became under-urbanized (Szelenyi 1996). The term “under-urbanization” was developed in the 1970s. It is the opposite of the term “over-urbanization” which served to describe urban processes in the Third World countries in the 1950s and 1960s. These two terms relate to industrialization processes in Western cities, which were characterized by a proportional growth in the number of industrial workers (the share of people in productive age working in industry) and the cities' inhabitants. In other words, the industrialization growth

was mirrored by an urbanization one. However, in the Third World countries, there was a faster growth of urban population than urban job opportunities created by industrialization. On the contrary, in socialist countries of Central and Eastern Europe the growth of urban industrial jobs seemed to have been much faster than the growth of a permanent urban population (Szelenyi 1996, 294). Consequently, the proportion of industrial workers to a resident population was much higher in a socialist European city than in a comparable West European city.

Szelenyi explains the reasons for under-urbanization in socialist countries as follows:

“Under-urbanization was the direct consequence of the policy of socialist extensive industrialization, which economized on ‘non productive’ investments – such as those in housing, or other non-productive infrastructure such as schools, hospitals and even shops – and maximized the volume of investments in industry. The drastic rechanneling of resources away from personal and collective consumption to industrial, particularly heavy industrial development was possible only in an economic regime which eliminated private property and in which central planners could effectively redistribute the surplus. In market economies – that is, economic systems based on private property - extensive industrialization occurred with less or no retardation of infrastructural development.”

(Szelenyi 1996, 296)

Due to housing and other infrastructural shortages it was necessary to keep the new, industrial workforce in their rural place of living. It might be assumed that if the infrastructural investments had kept pace with growing industrial jobs' number the share of urban population in countries of Central and Eastern Europe would have been higher. According to Szelenyi, the socialism produced industrialization with exceptionally small urban populations and large rural ones as it did not require the same degree of concentration of population in space as capitalism did.

Indeed, a large part of this rural population in socialist countries was involved in a city life by working in an industrial plant and at least being partially freed from agriculture. These persons owned generally small farms in the countryside and additionally used to work in an industrial plant in a city¹⁹. In some countries the proportion of industrial workers in the rural population became higher than that in the urban population (Enyedi 1996, 116). The industrial workers living in rural areas used to travel each day very long distances to their job places and

¹⁹ In a Polish language exists a word describing such a person: „chłoporobotnik“, what means: farmer-worker

the phenomenon of daily commuting from rural areas to the cities was widespread in the socialist countries. It was very inconvenient due to the insufficient public transportation (individually owned cars were rare).

Huge inflow of rural population into cities had also influence on their functioning – former farmers were modifying the traditional urban life. They used to keep strong links with their rural relatives, who helped them in many ways (e.g. by providing food, which was vital since the state provisions were insufficient). In return, they used to help their relatives in the countryside harvesting crops during paid holidays or vacations (Enyedi 1996, 117).

From a sociological point of view city's boundaries under the socialism were blurred. Many people who lived in the countryside used to work in a city. Many of those living in a city were still strongly connected with the countryside. Edmund Goldzamt, when describing urban development of the socialist countries, talks even of ruralization of large cities (as many newcomers from rural areas needed several years to adapt to the new living conditions) and at the same time urbanization of the countryside (Goldzamt 1971). It is worth noting that in industrializing West European cities in the 19th century rural-urban dichotomy remained very clear. It first started to dissolve with suburbanization, which gained on importance in the second half of the 20th century.

Urban and housing development in the socialism

The spatial extension of cities was typical for the socialist countries. Cities were rapidly increasing their inhabitants' numbers and, as a consequence, a lot of housing units and other infrastructure had to be built. In urban planning a modernist idea of functional segregation dominated: work and housing used to be separated. As land in the socialism had no value there were no incentives to use it in an economic way. The technological optimization of the construction process was more important than the local preconditions²⁰. Moreover, many plots in the inner city areas were given for industrial purposes. As a consequence, population densities in socialist inner city areas used to be lower than in their capitalist counterparts. This is supported by a current research by Bertaud and Renaud who noticed that the distribution of population densities in Moscow and Paris is strikingly different. In Paris, which has a typical density profile of a market economy city, the density drop has a direction from the center to

²⁰ Some prefabricated estates were planned according to the cranes' movements

the suburbs. On the contrary, the net density of Moscow at 15 kilometers from the city center is twice as high as in its center (Bertaud and Renaud 1995, 7).

On one hand architects and planners had a far greater influence over the creation of urban space than those in capitalist cities did. They could be more generous in using it (Szelenyi 1996, 301-302). On the other hand however, they were much more constrained by the so called “normatives” (regulations) according to which they had to design. In this way they had in fact very little possibilities to develop individual designs, well adapted to the natural conditions (Szczepański 2007, 69).



Picture 7. Aerial view on Wrzeciono estate in Warsaw, built in the late 1960s, source: (Trybuś 2011)

The cities were enlarged by prefabricated estates (in the Soviet Union and Romania called microdistricts or microrayons, in the GDR “Großwohnsiedlungen” and in Poland “osiedla mieszkaniowe”). These structures included multi store apartment’s buildings, social infrastructure and services. The roads were not crossing the estates, but they served as a boundary separating it from another one. They were designed to host several thousand inhabitants. The largest Polish estate Ursynów in Warsaw was planned for 140 000 people. These estates are a very characteristic for the spatial structure of cities in Central and Eastern Europe. The domination of the modernist urban planning principles in this part of Europe is

contrasting with a traditional urban design with urban blocks on a regular street grid found in cities of Western Europe, which developed most intensively in the 19th century.

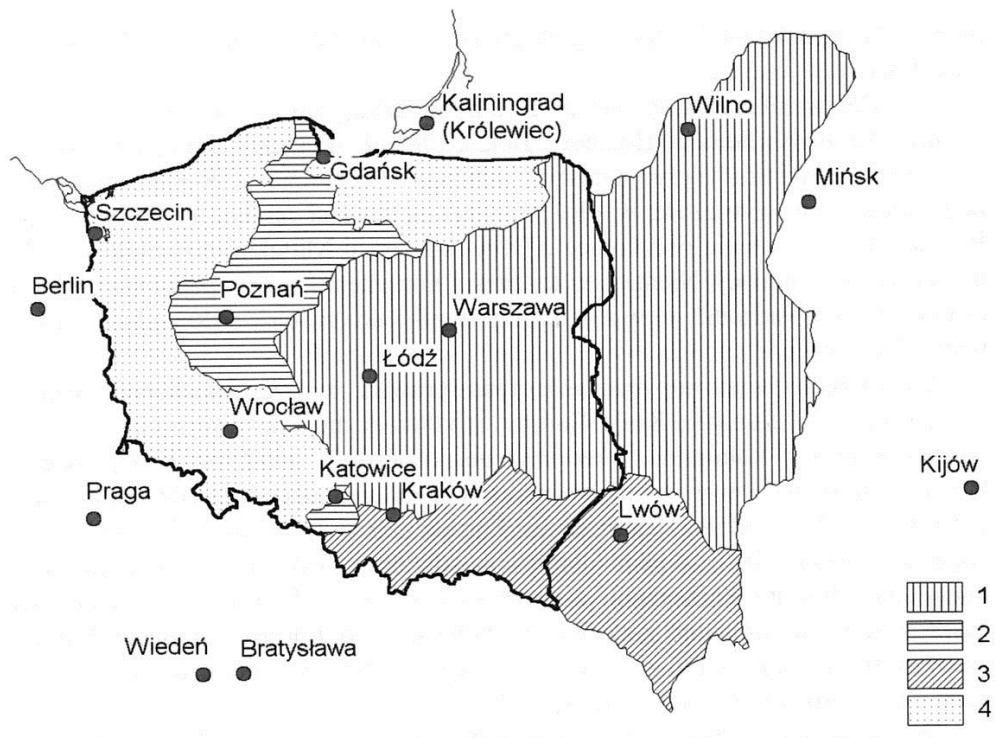
The construction of the, designed by planners, infrastructural objects in the estates, like schools, shops or even pavements occurred with great delays. This was a result of the earlier described favoring of industry. Nearly all remaining funds were spent on housing construction, which was badly needed due to intensively growing population in cities. All other buildings and amenities were created much later, if at all, and many of these shortages exist nowadays. Therefore, the estates in outer cities were only bedrooms, deprived of the other basic functions. The necessary infrastructure existed in the inner cities, where some shops, scarce recreational objects and educational infrastructure were located. Hence, in a socialist city the inner parts remained the focal points of urban life, though it was not as lively as in a capitalist city. Moreover, the existing housing in inner city became densely populated. Great housing shortage was the reason why the existing flats in pre-1945 buildings started to be partitioned and given to the workers. The aim of such a policy was not only to ensure accommodation for new city dwellers but also to mix intelligentsia (which was in majority against the regime) living in inner city areas with new working class (which was expected to support it).

In period 1945-1989 characteristic urban structure in cities of Central and Eastern Europe was formed: inner cities with pre-1945 structure, and new large housing estates around them, built upon modernist principles. These estates were compact and composed of high-rise buildings, which resulted in relatively high population densities for those areas. Suburbanization did not exist in the socialism due to a general lack of private ownership and a strict governmental control over urban land use and infrastructure.

3.2.3. Urbanization process in socialist Poland

The period of the socialism was the time of the most dynamic city growth in Poland in its history. This rapid urbanization was complicated by the border changes in the first half of the 20th century and resulting great population movements. In 1918, Poland as well as the other countries in Central and Eastern Europe regained independence. Three parts of Poland, which had previously belonged to Russia, Prussia and Austria, were unified. In 1945, as a result of the arrangements in Yalta, Polish borders were moved westwards. Picture 8 presents the border

changes of Poland in the first half of the 20th century. These border changes and having been under the reign of three different countries for over 123 years caused substantial differences in the level of spatial, economic and demographic development of the country. They still exist and can be seen by different election results or by different stage of ageing of the Polish regions (G. Gorzelak 2006, 49).



Picture 8. First half of the 20th century: changes of Polish borders and belonging of Polish areas during partitions' period. 1: Russian partition, 2. Prussian/ German Empire partition, 3. Austrian partition, 4. Areas gained after 1945, source: (Węclawowicz 2002, 16)

Until the outbreak of WW II, the urbanization process in Poland was sluggish. Only the capital city Warsaw and two largest industrial regions in the country: Łódź and today's Metropolis Silesia were dynamically developing. However, the development of these two industrial regions was weaker than that of comparable ones in Western Europe. This can be illustrated by the Metropolis Silesia and the Ruhr Area. In the 19th century, Metropolis Silesia was a place where borders of the three countries met during the partition period (Dąbrowa Górnicza and Sosnowiec belonged to Russia, Jaworzno to Austria, the rest of the cities to the German Empire). This near vicinity of a potential enemy was the reason why none of the Powers was interested in investing too much in this region. Therefore, the growth of Ruhr Area in the 19th and the beginning of the 20th century was far more intense than that of the Metropolis Silesia, despite the fact that large part of it belonged to the German Empire at that

time. The development of Łódź, which in the 19th century belonged to Russia, was also hampered. Despite having already in 1914 0.5 million inhabitants Łódź was no administrative center and it lacked any cultural or academic institutions. Moreover, the city lacked good railway or road connection, even with Warsaw which is merely 120 km away.

In 1946, the share of urban population in Poland accounted to 31.4%. In the following years it was growing considerably and in 1988 it reached the level of 61.2% (+29.8%). In real numbers the growth accounted from 7.5 million in 1946 to 23.2 million in 1988, what means that Polish urban population tripled in that period.

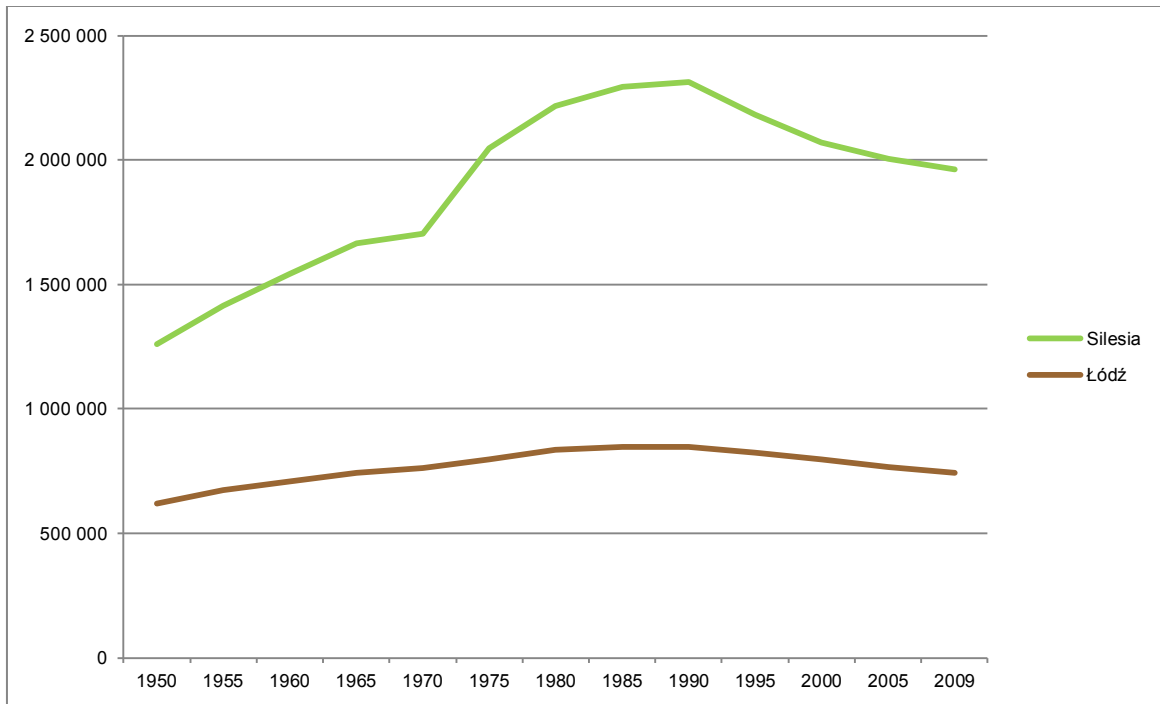
This rapid growth in the share of urban population, which in other socialist countries reached even higher levels, was coupled in Poland by a great demographic growth. In 1946 Poland had 23.9 million inhabitants and their number increased to 37.9 million in 1988. This population increase occurred despite the negative migration balance, as Poland used to be an emigration country. It was made up by a very high birth rate and a low death rate that resulted from a very young profile of the Polish population.

Poland	1946	1988	42 years
Population development	23.9 million	37.9 million	+ 14 million + 158%
Urban population	7.5 million	23.2 million	+ 15.7 million + 300%
Share of the urban population	31.4%	61.2%	+ 29.8%

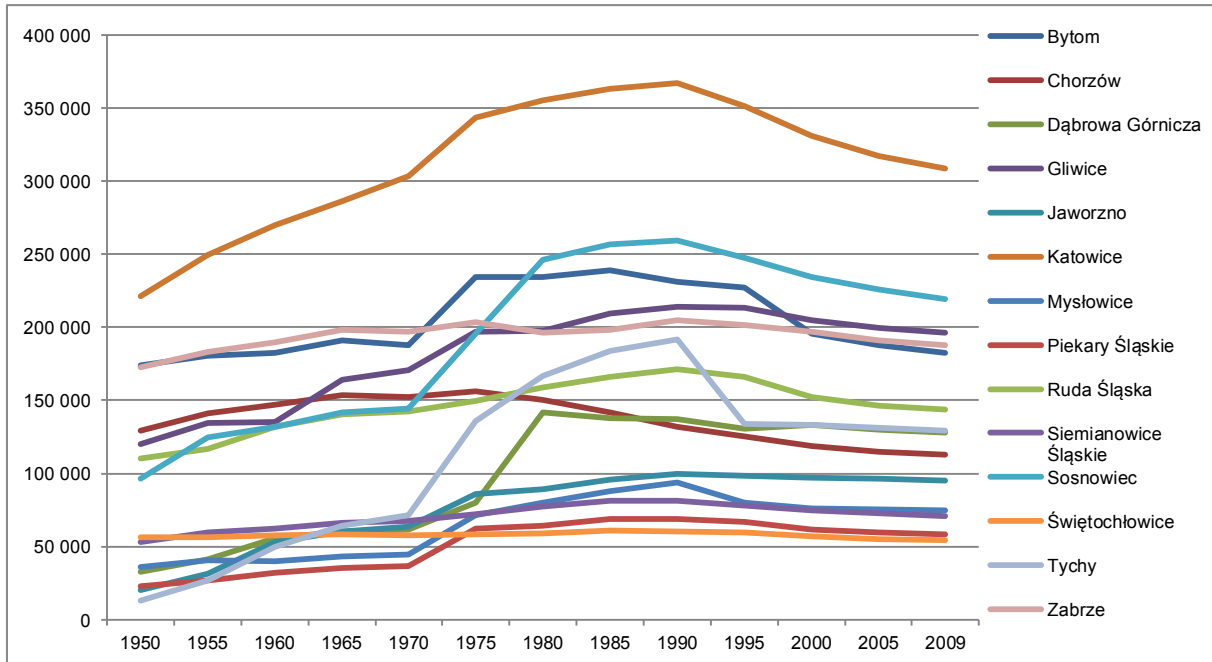
Table 4. Urban and demographic development in socialist Poland in period 1946-1988, Source: based on censuses data acquired from www.stat.gov.pl

Although the most intense urbanization phase in Poland (Table 4) took place app. 80 years later than in Germany (Table 2), both phases are characterized by similar percentage values in urban population and total population increase. Nonetheless, the time interval between them makes them very different in the economic, social and particularly spatial dimensions.

The greatest cities' growth in Poland took place in the 1950's, 1960's and 1970's. This dynamics is well seen in Pictures 9 and 10 that show population change of the Metropolis Silesia and Łódź in years 1950-2009.



Picture 9. Population change of Metropolis Silesia and Łódź in years 1950-2009. Source: own presentation based on data from: 1950-1979 Roczniki statystyczne GUS, 1980-1994 Roczniki demograficzne GUS, 1995-2009 www.stat.gov.pl



Picture 10. Population change of the Metropolis Silesia cities in years 1950-2009. For the years 1950 and 1955 population of Katowice is calculated together with that of Szopienice, as well as population of Ruda Śląska is calculated together with that of Nowy Bytom. In both cases the cities were later unified. Source: own presentation based on data from: 1950-1979 Roczniki statystyczne GUS, 1980-1994 Roczniki demograficzne GUS, 1995-2009 www.stat.gov.pl

Until the late 1980s, the Metropolis Silesia cities and Łódź had rapidly growing population numbers. Łódź population increased from 620 000 in 1950 to 854 000 in 1988 (+37%). In years 1950-1990, population of the Metropolis Silesia changed from 1.26 million to over 2.3 million, what makes an increase by almost 1 million people (+83%). However, this growth was not evenly distributed over the Metropolis Silesia cities. Tychy, which was one of the Polish new towns founded in 1951, had a rocketing population increase, amounting to well above 120 000 in only 30 years. Katowice, Sosnowiec, Gliwice also noted a very high population increase. Cities located in the center of the conurbation, with very high densities, like Świętochłowice had low population growth and Chorzów (Königshütte) started even to depopulate in 1978 (until 1990 -14%). Its depopulation was caused by a spatial policy of degglomerating Upper Silesia, i.e. move of inhabitants to the outskirts and keeping the core for industrial purposes.

	1950	1989	population increase 1950-1989	in %
the Metropolis Silesia	1 259 477	2 310 390	1 050 913	83,44
Łódź	620 273	851 690	231 417	37,31
Kraków	343 638	748 356	404 718	117,77
Wrocław	308 925	642 334	333 409	107,93
Poznań	320 670	588 715	268 045	83,59
Gdańsk	194 633	464 649	270 016	138,73
Szczecin	178 907	412 058	233 151	130,32
Bydgoszcz	162 524	380 385	217 861	134,05
Lublin	116 629	349 672	233 043	199,82
Białystok	68 503	270 580	202 077	294,99
Gdynia	103 458	250 936	147 478	142,55
Częstochowa	112 198	257 497	145 299	129,50
Radom	80 298	226 317	146 019	181,85
Toruń	80 637	200 822	120 185	149,04
Kielce	61 332	212 901	151 569	247,13
			4 155 200	

Table 5. Population change between 1950-1989 of the major Polish cities (without the capital city)

This spectacular growth of cities of Metropolis Silesia and Łódź in the socialism was not exceptional. In fact other Polish cities faced even a more intense population increase. Table 5 presents population change in years 1950-1989 in cities that nowadays have more than 200 000 inhabitants, without the capital city Warsaw. All these cities witnessed in the socialism great population increments and their total population increased by over 4 million persons within only 30 years.

In the 1980s, this rapid growth slowed down and it was not as intense as before (Enyedi 1996). Thus, the decrease of population number of the Metropolis Silesia cities and Łódź commencing at the turn of the 1990s is not an abrupt process. It is the outcome of a longer process of slowing down rates of population increments in cities, which can be linked with economic crisis of socialist countries beginning in the late 1970s. Indeed, the collapse of the socialism was not an overnight phenomenon but it was a process that took several years and comprised many events like workers' strikes, emergence of "Solidarność" movement and martial law in years 1981-1983.

Flats in %	before 1945	1945-1988	1989-2002
Łódź	26,7	66,6	6,7
Bytom	37,0	60,8	2,2
Piekary Śląskie	24,2	73,6	2,2
Gliwice	37,7	58,3	4,0
Zabrze	43,1	54,0	3,0
Chorzów	41,7	55,6	2,6
Katowice	27,2	68,3	4,5
Mysłowice	22,8	71,6	5,6
Ruda Śląska	24,3	72,2	3,5
Siemianowice Śląskie	27,7	66,7	5,6
Świętochłowice	38,4	58,6	3,0
Dąbrowa Górnicza	12,0	80,7	7,4
Jaworzno	13,6	80,1	6,3
Sosnowiec	18,6	77,6	3,8
Tychy	3,3	91,5	5,2
Poland	23,4	64,3	12,4

Table 6. The percentage of flats built in periods: before 1945, 1945-1988, 1989-2002 in the analyzed cities of Metropolis Silesia and Łódź in year 2002. Data derived from www.stat.gov.pl

Such an intensive population growth exerted a great influence on the spatial development of cities at that time. According to the data of the Central Statistical Office, in period 1945-1988 over 7.5 million flats were built in Poland, most of which are in prefabricated, multi store buildings. Nowadays, these buildings form a large part of the housing stock in the Polish cities. This is also valid for cities, whose growth was dynamic in the pre-1945 period as Łódź and the Metropolis Silesia. Table 6 presents the percentages of flats built in periods: before 1945, 1945-1988 and 1989-2002 in these cities. Despite intensive development of Łódź and the Metropolis Silesia in the pre-1945 period their housing stock is dominated by buildings created in the socialism. This supports the earlier presented information that the development of these cities in the socialism was very intense. Even in centrally located cities of the Metropolis Silesia like Chorzów, which had had decreasing population since 1978 due to

policy of degglomeration, the majority of the housing stock is formed by buildings constructed during the socialism. Cities that were particularly intensively growing in that period like Tychy but also Sosnowiec, Dąbrowa Górnicza and Jaworzno have much higher shares of this housing, exceeding 80%.

3.3. Development of the GDR

Already in the Middle Ages south and central part of the later GDR had a very well developed urban network. Between the mid of the 19th century and the outbreak of the WW I, Eastern German cities faced a spectacular growth due to an intense industrialization and a huge population increase combined with a high mobility. As a result, the GDR was, by entering the socialist era, by far the most urbanized and industrialized country in the block. The described above socialist objectives of a fast industrialization and urbanization were not relevant for the GDR. Unlike any other socialist country, it did not face a rapid urban population growth but contrary depopulation of many towns and some cities. In the following part these issues will be presented in detail. In order to give a better understanding some data on the demographic and urban development in the GDR will be compared with the respective ones from Poland.

3.3.1. Depopulation and ageing

The demographic development of the GDR should not be treated as typical for the socialist block. Table 7 presents how differently populations of two neighbor socialist countries, such as the GDR and Poland developed. In the period 1960-1976 the population of the GDR diminished by 2.56% whereas that of Poland grew by 16.24%.

	The GDR			Poland		
	1960	1970	1976	1960	1970	1976
Population (thousand)	17241	17058	16800	29561	32526	34362
Increase in %			-2,56%			16,24%
Births per 1000 inhabitants	17	13,9	10,8	22,6	16,6	19,5
Deaths per 1000 inhabitants	13,6	14,1	14,3	7,6	8,1	8,8
Natural increase per 1000 inhabitants	3,4	-0,2	-3,5	15	8,5	10,7

Table 7. Population development in the GDR and Poland in period 1960 – 1976. Source: (GUS 1977)

The natural increase remained in Poland at a very high level due to high birth rate and low death rate. On the contrary, in the GDR, although birth rate remained on a quite high level, natural increase was around 0 and since 1968 it was negative. A high death rate, caused by the old structure of the population, was considered to be the main reason for the negative natural increase (Gorzelać and Żebrowski 1983). Nonetheless, in the 1970s an increase in birth rate mostly due to the introduction of state incentives was observed. In 1980, there were 14.6 births per 1000 inhabitants (Wolle 2003, 256). For a short time a surplus of births over deaths was recorded. However, the population of the GDR was still decreasing due to out-migration.

Despite the fact that in the GDR total fertility rate reached in 1980 the level of 1.94 and it was much higher than that of Western Germany (1.4) it still lagged behind the Polish level. In Poland in 1983 the total fertility rate amounted to 2.416 and throughout the 1970s it did not drop under the level of 2.3. In 1960 it was even 2.98.

Some publications concerning demography under the socialism were already pointing out that the population of the GDR was ageing (Otto and Strohe 1984). Table 8 presents demographic structures of the GDR and Poland according to age groups in years 1960, 1970 and 1975. Already in 1960, 13.6% of population in the GDR was aged over 65 years. In 1975, this percentage accounted to 16.3%. The share of the elderly in the population was one of the highest in the world (Otto and Strohe 1984) and much higher than in any other socialist country at that time. By comparison, in Poland in 1975 the percentage of people aged over 65 accounted to merely 9.6%:

population according to age groups in %	The GDR			Poland		
	1960	1970	1975	1960	1970	1975
under 6	10,90	10,40	8,40	16,70	11,00	11,50
7 – 15	11,40	14,40	14,60	18,10	17,70	14,20
0 - 15	22,30	24,80	23,00	34,80	28,70	25,70
16 – 54	50,10	47,40	51,70	51,10	53,70	57,00
55 – 59	7,50	5,70	3,70	4,80	4,60	3,60
60 – 64	6,50	6,50	5,30	3,60	4,60	4,10
16 - 64	64,10	59,60	60,70	59,50	62,90	64,70
65 and more	13,60	15,60	16,30	5,70	8,40	9,60

Table 8. Population structure in the GDR and Poland in 1960, 1970, 1975. Source: (GUS 1977)

Table 9 presents the number of pensioners per 100 active persons in the GDR and Poland in 1960, 1970 and 1975. In 1975 the number of pensioners in the GDR was 2.5 times higher than the respective in Poland.

	The GDR			Poland		
	1960	1970	1975	1960	1970	1975
Pensioners per 100 active persons	37	45	45	10	14	18

Table 9. Pensioners per 100 professionally active in the GDR and Poland in 1960, 1970, 1975. Source: (GUS 1977)

Stefan Wolle states that pensioners were the most harmed social group in the GDR (Wolle 2003, 261). The GDR favored people in productive age who were healthy and efficient. This group was to be kept in a content mood. On the contrary, senior citizens were treated as “post productive wastes” of the GDR society. They were allowed to leave the GDR seasonably or permanently, without any problems. This treatment of the elderly was ironically called “maturity for travelling” (Wolle 2003, 262-263).

Between 1946-1980 only 3 administrative areas of the GDR (called “Bezirks”) noted a population increase: Frankfurt/ Oder (app. 80 000), Cottbus (70 000), and Rostock (25 000). The 11 remaining units noticed a population decrease, which was particularly high in “Bezirks”: Halle and Magdeburg. In Berlin area the number of inhabitants fell down as well by 56 000 persons in the given time frames (Gorzelać and Żebrowski 1983).

3.3.2. Urban development: depopulation of towns and cities

The above-described population decrease in the GDR, which took place throughout its entire existence, exerted a great influence on urban development in the country. The overall population decrease corresponded to the depopulation of rural areas, most towns and some cities. First, general information on the urban and rural development in the GDR and the respective data from Poland will be presented. Subsequently, a focus will be laid on depopulation of small as well as large cities, which took place despite the strong industrialization in the GDR.

Urban and rural development

The GDR, as opposed to all other countries within the socialist block, was a country with a very high urbanization level starting from its foundation. Already in 1939 the area of the later GDR had 72.2% of population living in cities (Gorzelaak and Żebrowski 1983). After 1945 the urbanization rate did not change much. In 1970 it accounted to 73.8%, and in 1979 it reached 76%. It was much higher than the urbanization rate of Poland which in 1976 amounted to only 56.4%.

The dynamics of urban processes in the GDR and Poland varied substantially. They are briefly presented in Table 10. In the GDR, in years 1960-1976, the urbanization rate increased by 4.5%. However, this relatively high increase was caused by the overall population number decrease. The change in real numbers was very modest, as it amounted to merely 443 000 persons (3.6%). At the same time rural population in the GDR was clearly decreasing: by 884 000 persons, which resulted in 17.6% less than the number of people living in rural areas in 1960.

	The GDR			Poland		
	1960	1970	1976	1960	1970	1976
urban and rural population (in thousand)						
population	17241	17058	16800	29561	32526	34362
urban in %	70,9	73,8	75,4	48,3	52,3	56,4
rural in %	29,1	26,2	24,6	51,7	47,7	43,6
urban in real numbers	12224	12589	12667	14278	17011	19380
urban population change			443			5102
urban population change in %			3,6			35,7
rural in real numbers	5017	4469	4133	15283	15515	14982
rural population change			-884			-301
rural population change in %			-17,6			-2,0

Table 10. Urban and rural population in the GDR and Poland in period 1960-1976, source: (GUS 1977)

Apart from the GDR, urbanization processes were very strong in socialist countries. In Poland, in years 1960-1976 the urbanization rate increased by 8.1% (from 48.3% to 56.4%). This percentage change actually hides a high increase of the urban population in Poland in a period of only 16 years, which in real numbers amounted to over 5.1 million persons. This means an increase of the population number by 35.7%. Rural areas in Poland, as opposed to those in the GDR, did not undergo substantial depopulation. In the given time frames their population number decreased slightly by merely 2%. The high increase of the urban population in Poland throughout the entire socialist period was due to a high birth rate and a

positive migration balance. In rural areas a very high birth rate leveled off population losses caused by migratory moves towards cities. Therefore, despite the fact that the share of the rural population was constantly decreasing, its real number remained basically unchanged in Poland.

In the GDR the birth rate did not compensate population losses in the rural areas. Therefore, the rural population of the GDR was strongly decreasing (also later, in years 1971-1980, the population in the countryside fell by 11% while the urban one grew by 1.3 % (Dennis 1988, 46)).

Unlike other socialist countries, the share of rural population in the GDR was aimed to be kept on a stable level, around 25%. It was the lowest share in the socialist block. The GDR authorities were reluctant to allow people to migrate from countryside into cities. There was namely a concern that the lower number of people living in rural areas and working in agriculture would not be sufficient to produce enough food for the country's needs. As a result, migration to the cities in the GDR was generally forbidden and moving from the countryside into a city required obtaining a special permit, which was very hard to get. This policy of constraining the rural-urban migration was very unusual in the socialist block, where these migratory moves were strongly supported by authorities and they were presented as a "social promotion".

In the GDR the urban-rural dichotomy was very clear. Urban and rural activities were not mixed with each other, but remained strictly separated. As already stated, the rural population of the GDR was bound to agriculture and was not allowed to migrate into cities as well as to work there. Consequently, the so widespread in socialist countries phenomenon of daily commuting of workers from rural areas into cities did not exist there. Rural-urban borders, which elsewhere in the block were blurred, remained in the GDR very distinct.

Since the rural population was not the base for the urban development in the GDR, as opposed to any other socialist country, there were rather population shifts inside the urban network, in which a migration direction dominated: from small towns into large cities. These population movements resulted in a strong depopulation of numerous small towns.

Towns' depopulation in the GDR

The GDR, due to its mature urbanization, had not only a high urban population number but also a lot of cities. It is worth comparing the urban structure of the GDR with that of Poland in

the mid of the 1970s. At that time in the GDR the number of small towns (with less than 5 000 inhabitants) accounted to 659 and it was much higher than the respective number in Poland: 282. The existence of so many small towns in the GDR is explained by a very intense urbanization process, which took place in the Middle Ages. It has to be remembered that other socialist countries, apart from the Czech Republic, did not face such a dynamic urban development at that time. As a result, the GDR had a different urban network, which was much denser and composed of fine elements than elsewhere in the block.

cities with a population number	The GDR 31. Dec. 1975		Poland 31. Dec. 1976	
	Cities	population in cities in % of the whole number	towns	population in cities in % of the whole number
under 5 th.	659	12	282	2,5
5 – 10	199	8,1	192	4
10 – 20	107	8,8	157	6,4
20 – 50	83	15,4	109	9,6
50 – 100	17	6,8	37	7,4
100 th. and more	14	24,3	31	26,5
	1079	75,4	808	56,4

Table 11. Number of cities according to population size in the GDR (1975) and in Poland (1976). source: (GUS 1977)

The percentage of urban population living in small towns in the GDR (12 %) exceeded to a high extent that of Poland (2.5%) in the mid of the 1970s. However, the share of people living in large cities (with more than 100 000 inhabitants) was in the GDR (24.3%) lower than in the weakly urbanized Poland (26.5%). The socialism favored the development of large cities, as they were the visual sign of a successful industrialization. The relatively low importance of large cities in the GDR, presumably, posed a big problem for its planners. The importance of numerous small towns was intended to be reduced and the migration from them to large and medium sized cities was strongly supported.

“The concentration of job places and new development investments in large and in chosen medium sized cities of the GDR caused inhabitants’ shifts at the expense of small towns and was deliberately accepted.”²¹

²¹ „Die Konzentration von Arbeitsplätzen und Neubauinvestitionen in Groß- und ausgewählten Mittelstädten der DDR hatte eine Verschiebung der Einwohnerzahlen zu Lasten der Kleinstädte zur Folge und wurde bewusst im Kauf genommen.“

(C. Hannemann 2004, 64) translation A.C.

Hannemann notes that at the end of the 1980s so far accepted population losses in small towns reached such a level, that they could not have been overseen any more due to demographic as well as economic reasons. The latter were totally different than in capitalist cities where jobs' reductions were forcing people to leave. On the contrary, in the depopulating GDR-city or town production could not be maintained due to a shortage of workforce. Therefore, shortly before the collapse of the socialism, a rapid depopulation and the advanced ageing of numerous, small towns began to be discussed (C. Hannemann 2004, 62), (Hunger 1990).

Cities' depopulation in the GDR

Demographic growth of the major cities in the GDR was very modest in comparison to cities in other socialist countries. In fact, only Rostock witnessed an intensive development. Other, most intensively growing cities were also located in north-east areas (Table 12). The GDR planners aimed at creating a balanced city network, therefore the growth of cities in more rural areas was supported (Mecklenburg-Vorpommern), while the growth of existing large cities in well urbanized regions was neglected. Cities in Saxony like Plauen (-12.4%), Zwickau (-14.3%), Görlitz (-25.3%), Leipzig (-14.2%) and Halle (-20.2%) had in the socialism decreasing populations, what was very unusual in the socialist block.

Some saxonian cities, even those which used to depopulate in the pre-1945 period like Chemnitz, Dresden or Magdeburg, had slowly growing populations. Moreover, in Saxony a new town Hoyerswerda of 70 000 inhabitants was founded. Altogether within 30 years the population of 25 major GDR cities increased by over 430 000 persons. In the same period the population change in the 15 major Polish cities (Table 5) amounted to 4.15 million persons.

Despite a depopulation of towns and many cities in the GDR the urban population was growing while the rural one was clearly decreasing. It was contradictory to what was happening in Western Germany, where in the 1970s and 1980s due to the suburbanization urban population was decreasing and the rural one was growing. Hence, a conclusion can be drawn that the socialism strengthened large and medium-sized cities in Eastern Germany, whose development was starting to weaken in the pre-1945 period.

	1950	1989	population change 1950- 1989	in %
Brandenburg an der Havel	82 215	94 872	12 657	15,40
Cottbus	60 874	128 943	68 069	111,82
Frankfurt (Oder)	52 822	87 126	34 304	64,94
Potsdam	118 180	141 430	23 250	19,67
Greifswald	44 468	68 597	24 129	54,26
Neubrandenburg	22 412	90 471	68 059	303,67
Rostock	133 109	252 956	119 847	90,04
Schwerin	93 576	129 227	35 651	38,10
Stralsund	58 303	75 498	17 195	29,49
Wismar	47 786	58 058	10 272	21,50
Chemnitz	293 373	301 918	8 545	2,91
Plauen	84 485	73 971	-10 514	-12,44
Zwickau	138 844	118 914	-19 930	-14,35
Dresden	494 187	501 407	7 220	1,46
Görlitz	100 147	74 766	-25 381	-25,34
Hoyerswerda	7 365	67 881	60 516	821,67
Leipzig	617 574	530 010	-87 564	-14,18
Halle (Saale)	289 119	230 728	-58 391	-20,20
Magdeburg	260 305	288 355	28 050	10,78
Erfurt	188 650	217 035	28 385	15,05
Gera	98 576	132 257	33 681	34,17
Jena	80 309	105 825	25 516	31,77
Suhl	24 020	56 345	32 325	134,58
Weimar	64 452	63 412	-1 040	-1,61
Eisenach	51 777	48 361	-3 416	-6,60

431 435

Table 12. Population change in the analyzed Eastern German cities between 1950-1989, source: Staatliche Zentralverwaltung für Statistik

This wish to have growing cities was supported by the concern of the planners on depopulation of cities in the GDR. The necessity to at least slow it down and undertake actions aiming at preservation of the settlements' system in the GDR was stressed in "Städtebauprognoze DDR" (Hunger 1990, 48). The Authors of this report drew attention to the issue of place attachment. It was noticed that quality of city culture and surrounding landscape had the main influence for the intensity of attraction to a given place by its inhabitants. Cities with low quality landscape, destroyed environment, little local attractiveness and low cultural level suffered from inhabitants' emigration, particularly of the young and qualified. This applied to a number of industrial medium-sized cities (Sömmerda, Jena, Brandenburg), but also to large cities with great environmental damages (Magdeburg, Halle, Leipzig). Even cities with good work and housing conditions, but little developed cultural and landscape attractions had problems with unwanted emigration of inhabitants. On the contrary, cities with a well-developed cultural offer and beautiful natural surroundings like

Weimar, Erfurt or Rostock had little problems with binding their inhabitants (Hunger 1990, 36-38).

3.3.3. Outer city: extensive urban development

The extensive urban development of a socialist city was justified by its rapidly growing population. Although in the GDR, as presented above, towns and some cities had decreasing populations' numbers or only moderately growing ones, their areas were substantially growing. As it is reported in "Städtebauprognose DDR", in years 1975-1990 development areas, within administrative borders, grew in the case of Leipzig from 34% to 38.6%, Erfurt 20.6% to 26.3%, Dresden 32.1% to 34.7%, Gera 19.3% to 22.1% and Postdam 17.7% to 22.9% (Hunger 1990, 62).

In the following part the reasons for the extensive development of the GDR cities, while their populations were decreasing or only moderately growing, will be investigated.

Intensified housing development

After 1945, a shortage of dwellings existed in the GDR. Until 1955 the building activity concentrated in inner cities, which were often severely damaged during the war. Despite quite high construction rates, the shortage was not considerably reduced. In the 1950s the residential buildings started to be constructed in estates located outside the inner cities. In this way construction activity moved from inner cities to their outer parts. It was hoped that such a development would be only temporary and after reaching the desired number of flats (reduction of quantitative deficit) the extensive urban development would be replaced by an intensive one i.e. located in inner cities (reduction of qualitative deficit – by renovating existing housing). This change was first planned for the mid of the 1960s, then, as the shortage on dwellings still existed, it was postponed until 1971 (Hoscislawski 2004).

At that time, it was realized that such an extensive urban development was from the economic point of view not desired, as it consumed too much of the agricultural land and food had to be transported from greater distances. Moreover, transportation and pipeline costs increased sharply due to extensive cities' developments by a constant or lowering population number. It was managed to introduce mechanisms like charging the land, which goal was to make new developments in outer city denser (Hoscislawski 2004). However, the demand on dwellings

grew despite the decreasing population number – it was driven by a growing number of households. In 1971, the shortage of dwellings still existed.

Lowering birth rate observed in the 1960s caused a concern that by maintaining this tendency the GDR's population would be decreasing very strongly in the 1970s and 1980s. Studies were carried out, in which it was explained that low birth rate was mainly due to the lack of flats, as this shortage hindered creating a family. Therefore, building flats became a priority for the new authority led by Erich Honecker in 1971 (Hoscislawski 2004). Thus, after 1971, the objective of moving the construction activity from outer city towards the inner part was not reached. In fact, the extensive urban development in the GDR's cities was even strengthened because flats' production was to be as effective as possible. Building on the green fields was easier and cheaper as technological optimization of construction could be implemented and there was no requirement of costly demolitions of dilapidated existing stock as in inner cities. Moreover, these new investments were freed from the land charge earlier introduced. The production of flats grew exponentially in the following years, from 65 000 in 1971 to 111 000 in 1981 (Hoscislawski 2004). Between 1971-1990, the number of flats grew from 6.06 million to 7.08 million, despite the demolition of approx. 1.5 million flats (Part 3.3.4). In this way the shortage of dwellings in the GDR ceased to exist.

	1970	1981	1990	2000 (est.)	2010 (est.)
Citizens	17070	16706	16640	16360	16070
Households	6403	6510	6760 ±60	6520 ±110	6150 ±110
flats	6057	6563	7085	6970	
Excess of flats over households	-346	53	325	450	

Table 13. Development of citizens, households- and flats number in thousand, in the GDR, source: (Hunger 1990, 22). Data for years 1970 and 1981 were based on the outcomes of population censuses

According to the data presented in Table 13, housing needs in the GDR were satisfied already in 1981 when population census recorded 53 000 flats more than households. In the following years this excess grew considerably, and was estimated in 1990 for about 325 000. Thus, the number of habitable flats in the GDR, at the end of its existence, was by 5% higher than the number of households.

Already at that time it was realized that the growing number of unused flats would become a severe problem in the future. A heavy excess of flats was expected in large cities like Dresden (61 000), Leipzig (35 000) and Chemnitz (64 000). Also, small towns and communes with

less than 10 000 inhabitants were expected to have huge excess of flats, which was overall estimated for 255 000 units (Hunger 1990, 24).

Hoscislawski points out that “wrong flats” i.e. flats which were not particularly needed were built in the GDR (Hoscislawski 2004). These flats were located in multi store prefabricated buildings. This type of housing construction was gaining on scale in the 1960s and 1970s. At that time, over 90% of flats in the GDR were created in prefabricated buildings, while in Western Germany in 1970, which was the peak year, only 9% (Hoscislawski 2004). These flats were small and had inflexible plans. Hoscislawski assumes that the GDR’s people wanted more spacious flats, able to better respond to their needs. Private gardens were also very much desired. However, in the socialism, one-family houses were rarely constructed. In 1980, in the GDR only 16% of built flats were located in one family houses, whereas in Western Germany this share accounted to 69% (Hoscislawski 2004). “Städtebauprognose DDR” identified a growing demand on bigger flats (with at least 4 rooms) that for the 1990s was estimated at the level of 400 000-500 000 units. This demand was caused by the increase in number of 3-persons households and a general growth in needs for more space (Hunger 1990, 25). These facts may partially explain a very intensive suburbanization which took place in the 1990s in Eastern Germany (Part 4.2).

Intense housing construction in the GDR led to a considerable increase in the number of flats but at the same time it led to neglect older housing stocks situated in inner cities. The growth of a high quality flats in outer cities was namely at the cost of modernization of existing housing stock in inner cities, which further dilapidated, and could not be used any more due to bad state or lack of interest to rent them (Hunger 1990, 18). More and more people in the GDR wished to move out from the neglected inner cities into flats in outer cities that had better living conditions. Newly constructed flats in prefabricated estates were equipped with modern facilities like bath or running water. All necessary amenities like kindergartens, schools or shops were provided in the GDR prefabricated estates.

It is remarked in “Städtebauprognose DDR” that low investments in modernization of older housing stocks were in fact the main reason for a constant need for flats (Hunger 1990, 18). It can be stated that new flats in outer cities were causing dilapidation of existing stock in inner cities and the whole system of the GDR flat usage was becoming less and less effective.

Hoscislawski concludes that the GDR's housing development was three times mistaken: too many flats were built, the flats did not meet the needs of their residents and the location was inadequate (on the city peripheries) (Hoscislawski 2004).

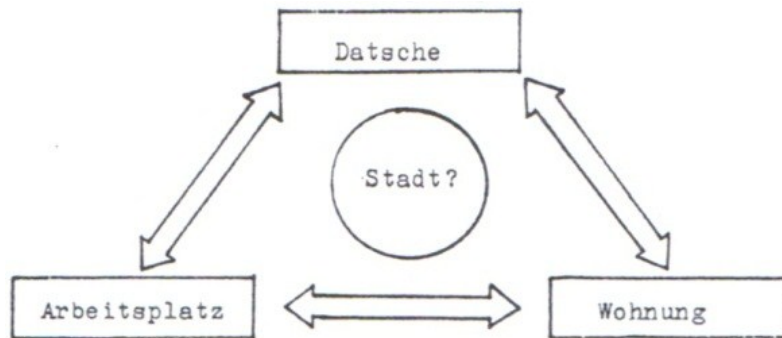
Leisure housing development

Leisure housing development in the GDR requires attention. This phenomenon was fairly unknown in Poland and other socialist countries, which were intensively urbanizing. As it was described in Part 3.2 new city inhabitants in socialist countries used to keep strong links with their relatives in the countryside (agricultural land was in a major part privately owned apart from the GDR). They used to spend their free time there. In the GDR however, such numerous links could not exist, because rural-urban migration was very low.

The GDR's city inhabitants desired green, private space for outdoor leisure, which was missing in the vicinity of their blocks of flats. Furthermore, the GDR, as well as other socialist countries, used to have high deficits on public recreation offer, in a form of hostels, restaurants or hotels. This explains why in the GDR numerous cottages "Datsche" were built. It was estimated that in 1984 300 - 350 thousand of such cottages existed in the GDR and they were accommodated in summer by approx. 1 million people (Hunger 1990, 35). The construction of these cottages was strengthening the extensive urban development (Hunger 1990, 63).

Gardening was very popular in the GDR. More than 50% of households (including all social classes equally: workers, intelligence) used to work in the garden in their free time. Moreover, time spent on gardening and activities grew considerably in years 1974-1985, leveling on an average of 35 minutes per day (for both men and women) (Hunger 1990, 34). In this way, free time in the GDR was spent in the "Datsche", or allotment, either by doing some gardening activities or making some repairs, which was caused by deficits in services and defective products.

People in the GDR used to live in uniform housing, worked in great industrial combines and spent their weekends in their cottages (Datsche) outside the city or in the allotment gardens. They were omitting city central areas, unless their job was located there (Kühn 2008). Functional separation of work, housing and garden was not only contributing to a higher commuting, but also disintegrated the city life, where its inner part was forgotten. The importance of inner cities in the daily life of the GDR's people was very much reduced:



Picture 11. Mono functional city development in the GDR: work, housing and garden, omitting inner city.
 Source: (Hunger 1990, 11)

3.3.4. Inner city: decay

Extensive urban development in the GDR, with alongside a decreasing population, resulted in a rapid growth of peripheries and a gradual, but severe, deterioration of inner cities, where new buildings were rare and renovation of existing stock was hardly done. There were recorded considerable shifts of population inside the cities from inner to outer parts. In years 1971-1981, the inner city of Halle/Salle lost -40% inhabitants and in years 1971-1986 the inner city of Leipzig lost -33% inhabitants (Hunger 1990, 63). However, towns were also severely affected by the process of inner city depopulation. Inner parts of such towns as Weißenfels, Kötchen, Schwarzenberg, Bad Langensalza, Gräfenhainichen lost in period 1980-1990 more than 20% of inhabitants (Hunger 1990, 125). The very intensive depopulation of inner cities was leading to the acceleration of ageing and to the increase of social problems in these areas.

Cities' built-up structure in the GDR

As presented in Part 3.1.1, German cities experienced a very dynamic growth between the mid of the 19th and beginning of the 20th century. This spectacular urban growth is still easily noticeable in space of Eastern German cities, where large part of their structure was created before 1945.

Table 14 presents share of flats located in buildings created before 1945. This share was estimated in the 1980s at the level of 60% (Hunger 1990, 104), as it included one-family housing that in majority was erected before 1945.

Multi store apartment building	Area %	Flats of the total number in %
Before 1870	4,7	6
1870-1918	24	32
1919-1945	9,2	11
total	37,9	49
1946-1970	10,9	17
1971-1980	13,0	24
total	23,9	41
One family housing and countryside housing	38,2	10

Table 14. Share of flats and housing area, according to construction date in 86 GDR cities, source: (Hunger 1990, 103)

In the large GDR's cities, which developed intensively during industrialization era, like for example Leipzig, this share remained on a 60% level, despite a strong construction process after 1990. In 1999, the housing structure in Leipzig looked as the following:

58% (190 000) of dwellings were built before 1948
31% (105 000) of dwellings were built between 1949-1990
11% (35 000) of dwellings were built after 1990 (Krings-Heckemeier, Porsch and Schwedt 2001, 47)

Currently, it is estimated that only 47% of the housing stock in Eastern Germany was built after 1945 (Wolle 2003, 266), while in Poland, this share amounts to 77%. This indicates that the inner city areas in the GDR, with pre-1945 structure, were much larger than elsewhere in the block. The scale of their decay and neglect in the socialism was, as a result, greater and more visible.

Buildings' demolitions in the GDR

The phenomenon of empty, dilapidated buildings in the GDR's towns and cities became visible already in the 1970s (Knebel 2005) and it was growing in the following years. At the end of the 1980s 43% of flats in Görlitz inner city were vacant, and 32.9% of historical buildings were in a very bad state (Hunger 1990, 131). In some other inner cities, vacancy levels were reaching 20% (Rink 2005). In 1989, 200 000 flats in those areas were unoccupied (Häussermann 1996, 219). As a result, contemporary high vacancy levels in inner city areas in Eastern Germany originate in a large part from the socialism.

Dilapidated pre-1945 buildings were hardly renovated but they were more frequently demolished. These demolitions were socially accepted and were even perceived as a progress

(Kress 2008). In the GDR, actions taken by inhabitants, aiming at the preservation of historic sites, were rare. Consequently, the number of apartments in pre-1945 housing declined from 5.4 million in 1961 to 3.9 million in 1990 (Häussermann 1996, 219). It means that, within the 29 years of the GDR existence, 1.5 million flats were demolished. Many of these flats were located in buildings of high historical value, which in this way were irretrievably lost. By demolishing older buildings only their state was taken into account not their cultural value (Hunger 1990, 71).

Despite these numerous demolitions in years 1971-1990, the number of flats in the GDR grew from 6.06 million to 7.08 million, which proves a very intense housing construction at that time.

It was estimated in “Städtebauprognoze DDR” that after 1990, 600 000 flats in the GDR would not be eligible for preservation, due to their state of dilapidation. They were going to be demolished and in order to achieve it, one planned to intensify demolitions’ process. Out of these 600 000 units, 450 000 were located in multifamily buildings that were erected before 1919. Additionally, 100 000 flats were located in one and two family buildings. They were planned to be demolished due to a scarce demand for these flats (they were mainly located in small towns and sparsely populated areas), despite good technical conditions. It was postulated that demolitions should have started taking place immediately in small towns and communes with lowering demand on flats. Altogether, 700 000 flats were planned to be demolished in the final GDR’s document regarding urban development (Hunger 1990, 111-113). In the five years plan 1990-1995, 129 000 flats were planned to be torn down (Hunger 1990, 115).

However, in the 1990s, flats were rarely demolished and the surplus of available flats was substantially growing due to an intense suburbanization. Launched in 2002 the program “Stadtumbau Ost” in which 280 000 flats were demolished in Eastern German cities (Liebmann, et al. 2010) was in fact the realization of the plan from the end of the 1980s.

The GDR inner cities suffered not only from intensive depopulation but also from a constant devastation of their spatial structure. The scale of both these processes found no resemblance in other socialist countries. Abandoned flats and vacant plots after demolished buildings were a frequent view. Consequently, they were perforating – losing population as well as structural

density. On the contrary, the outer city areas were intensively developing and were profiting from the inner city decay.

With decreasing populations in inner cities a range of services and social facilities decreased as well. These included hotels or hostels, restaurants, services and commerce, but also many cultural facilities like cinemas. In the inner city of Stralsund in years 1952-1988 the overall number of social facilities decreased by approx. 60% (Hunger 1990, 123).

In the early 1980s, shortage of dwellings ceased to exist in the GDR. For this reason, new measures aiming at intensifying building activity in inner cities could be slowly introduced. It meant that the '60s postulate to change from an extensive to an intensive (located in inner city) urban development could be finally launched. However, despite saturated quantitative needs for flats and a decreasing population, the extensive urban development was still programmed in 28 GDR city development plans for the 1990s (the growth of the land use was to amount 5-10%). In "Städtebauprognose DDR" a warning against maintaining this policy was given. The consequences of gradually decentralizing and dissolving settlements were described as irreversible and the social potential for the inner city revitalization would be lost (Hunger 1990, 69). Moreover, it was stressed that every extensive development had negative, getting greater, consequences and led to an escalation of the problems (Hunger 1990, 74-75).

3.4. Interim conclusions: the GDR – more Western than Eastern

The GDR and Western Germany

Up to 1945, Eastern German cities faced the same processes and development patterns as the cities in Western Germany. They underwent an unprecedented demographic, economic and spatial growth between the mid of the 19th and the outbreak of WW I. No other country, which became later socialist, experienced such a great urban growth at that time.

After WW I cities' growth slowed down in Germany. Some cities started to have stagnating or even decreasing populations (e.g: Leipzig, Dresden, Chemnitz, Plauen). Therefore, in that period intensive growth ceased to be the most prominent feature in the urban development of Germany.

The introduction of political zones and subsequently the imposition of two different political systems on the, so far, uniform German territory after 1945 resulted in arising of many

differences in the demographic, spatial and economic development between two German parts.

The GDR was throughout its entire existence a depopulating country. Similarly, Western Germany was depopulating in the 1970s and beginning of the 1980s. However, this population loss was quickly compensated by huge immigration, so that population in Western Germany increased in years 1950-1990 by 26.6%. At the same time population of the GDR decreased by -12.5% (Hoscislowski 2004).

It can be stated that in both German parts, in years 1945-1989, an urban crisis was present, however, it was manifesting differently. In Western Germany a crisis of large cities was observed, while in the GDR a crisis of small towns and inner city parts dominated.

It might be assumed that if Eastern Germany had remained capitalist, the phenomenon of deindustrialization observed in the 1960s in Western Germany would have also appeared there. The severe crisis of large, industrial cities in Western Germany was characterized by high losses of job places followed by outflows of inhabitants to prospering cities (Häussermann and Siebel 1987). In fact, some large cities in Eastern Germany were already depopulating in the in-between war period, which means that the post-industrial phase was already commencing at that time. However, in the GDR different processes were taking place. Due to the socialist planning goals the growth of large cities was desired and strongly supported while small towns and rural areas were neglected. Many of the large GDR cities had a growing or at least stable population numbers.

The deindustrialization and suburbanization known from the West, did not occur in the GDR. As a matter of fact, there was a strong pressure to move into cities from neglected rural areas, despite the fact that it was highly restricted by the authorities. Industrial production was kept on a very high level (although it started to decrease in the 1980s). The socialist system guaranteed a job place for everybody, therefore unemployment did not exist. Consequently, there were no economic reasons for people to leave cities in the GDR.

In the 1970s and 1980s a divergent development of migratory moves in Western Germany and the GDR was observed. In the former the urban population was decreasing while the rural one was growing due to the suburbanization. In the latter the urban population was increasing while the rural one was clearly diminishing (the suburbanization did not exist under the socialism).

The GDR and the socialist block

In the in-between war period, the Eastern German cities were entering the post-industrial phase while Poland and other countries of Central and Eastern Europe were still in a major part pre-industrial. During the socialism the industrialization on a large scale occurred in those countries for the first time. Hence, after 1945, a very different economic development in Europe was taking place: while in Western Europe the industrial assets were being closed down, they were being created for the first time in Central and Eastern Europe.

The urban development of the GDR was not typical for the socialist block. This country from its very beginning was highly industrialized and urbanized, as opposed to other socialist countries, which were initially poorly industrialized with predominantly agrarian populations. Their economic backwardness in comparison to Western Europe shaped the socialist planning objectives. One of the most important was to catch up with the West in terms of industrial production but also in terms of urban development. Development of cities was strongly supported and consequently, rural, socialist countries noted a high increase in the shares of their urban populations (Poland +30%).

In the GDR different policies had to be adopted. Unlike other socialist countries, where migration from rural areas was strongly supported in the GDR it was generally forbidden. Despite strict migratory restrictions, the depopulation of rural areas caused by migratory moves existed and it was further exacerbated by a very low birth rate. Urban growth in the GDR was very modest, in comparison to other socialist countries. As a matter of fact many small towns and some of the GDR large cities were already depopulating long before 1989 (Mykhenko and Turok January 2007, 49), which was very unusual in the socialist block. It was due to the fact that the country was already highly urbanized and migration from rural areas was constrained. It was also caused by the negative natural increase. Hence, urban depopulation and ageing did not start with the system change in Eastern Germany but it was present throughout the entire GDR existence.

Substantial differences between the GDR and other socialist countries existed in the spatial development of cities. Cities in the GDR had large pre-1945 housing structures that were forming inner city areas. Such large inner city areas were hardly found in cities of other socialist countries, which did not experience a comparable urban growth at the end of the 19th and the beginning of the 20th century as Germany did. Thus, the GDR had, in comparison with other countries of the block, a relatively well developed housing structure. This large

housing stock, coupled with great production of new flats and a population decrease resulted in a housing surplus that appeared already in the early 1980s. As a result of the great neglect of the inner city areas and better living conditions in new prefabricated buildings located in outer cities, the inner cities in the GDR started to depopulate intensively. Empty plots, abandoned buildings and vacancies were common features of the Eastern German cities long before 1990.

There were many features and phenomena specific to the GDR, which did not appear in other socialist countries. These included:

- Very high urbanization level in the late 1940s (over 70% of population lived in cities, urban development was not delayed compared to the West)
- Migration from rural areas highly restricted
- Agricultural land was managed to be collectivized (it did not take place in socialist countries not belonging to the Soviet Union)
- Rural-urban dichotomy very clear
- Rural population not allowed to work in cities, the GDR was not “under-urbanized”
- Large and medium cities’ growth at the expense of small towns,
- Much more small towns than elsewhere in the block (the outcome of a very intense medieval urbanization process)
- Small towns, some medium and even some large cities depopulating intensively (while elsewhere in the block a rapid urban growth)
- Much larger pre-1945 housing structure in cities (result of a great urban development, which was not present in any other socialist country)
- Housing overproduction, while in other socialist countries severe housing shortages
- State of decay of inner cities more noticeable
- Inner cities omitted by inhabitants
- Decreasing overall population number throughout the entire GDR period
- Advanced process of ageing of the GDR population

Despite having been separated for 45 years, both German parts retained similar tendencies in the urban development. At the end of the 1980s, in both of them negative urban phenomena

were identified. They have their roots in the in-between war period when German cities ceased to have rapidly growing populations and some began to depopulate.

In none of the socialist countries such negative urban phenomena as in the GDR existed. On the contrary, a great city growth was observed. Thus, the 2nd half of the 20th century meant for countries in Central and Eastern Europe an impressive industrial and urban development similarly as the one of the period of the 2nd half of the 19th century and the beginning of the 20th for Germany. This implies that almost a century difference went between in the peak points of urbanization processes between Germany and the countries of Central and Eastern Europe.

4. “Shrinking cities” in Eastern Germany after 1989

Severe city crisis in Eastern Germany, named as “shrinking cities”, is described in current research studies as resulting from extreme deindustrialization, decentralization and population decrease (Glock 2006), which took place after 1989. These processes used to cause urban crisis in highly developed countries as well, but they are perceived to be less intense than those in Eastern Germany.

The following Chapter aims at presenting these processes and at finding their reasons. They stem from the above described periods: pre-1945 and the socialism. However, changes that occurred after 1989 largely contributed to the intensification of these processes. Focus is also laid on the influence of the population changes on the spatial and economic development of the Eastern German cities.

The Chapter consists of three parts. The first one (4.1.) deals with phenomena taking place in the demographic dimension, second (4.2.) with the spatial ones and the third (4.3.) with those relating to economy. The new information and that presented in the previous part referring to the GDR is synthesized and in the final part the conclusions are drawn.

4.1. Demography: rapid depopulation and advanced ageing

In the following part the process of depopulation and the rapid ageing in Eastern Germany and its major cities will be presented. Both these processes existed in the socialism, but after 1989 they intensified to the level never observed before.

4.1.1. Depopulation of Eastern Germany since 1989

In 1989, the population of the GDR accounted to 16 433 796 persons (Wolle 2003, 247). It was the lowest population number in this country since 1945. As presented in Part 3.3.1 a negative natural increase and a high out-migration shaped the demographic development throughout its entire existence. A demographic prognosis prepared at the end of the 1980s envisaged a further population decrease in the GDR. It was estimated that between 1986-2010 the GDR population would decrease by 0.5 million people (Hunger 1990, 22). Only Berlin’s

population was expected to grow by 250 000 persons. As a result, the rest of the GDR's area would lose 750 000 people (Hunger 1990, 48).

The already depopulating towns and some cities were expected to continue losing their population in the future. Cities such as Chemnitz, Plauen, Zwickau, Leipzig, Halle-Neustadt, Dessau and also Görlitz, which were already depopulating, were expected to lose approx. 10% of inhabitants from 1990 to 2010. Other cities, whose development until 1990 was more favorable, were also to lose inhabitants in these time frames (Jena, Wismar, Brandenburg, Gera, Weimar, Dresden and Magdeburg) (Hunger 1990, 50). Thus, by entering the capitalism, Eastern Germany was expected to lose inhabitants.

	Population number		%
	1995	2007	
Germany	81817499	82217837	0,49
Schleswig-Holstein	2725461	2837373	4,11
Hamburg	1707901	1770629	3,67
Niedersachsen	7780422	7971684	2,46
Bremen	679757	663082	-2,45
Nordrhein-Westfalen	17893045	17996621	0,58
Hessen	6009913	6072555	1,04
Rheinland-Pfalz	3977919	4045643	1,70
Baden-Württemberg	10319367	10749755	4,17
Bayern	11993484	12520332	4,39
Saarland	1084370	1036598	-4,41
Berlin (East and West)	3471418	3416255	-1,59
Brandenburg	2542042	2535737	-0,25
Mecklenburg-Vorpommern	1823084	1679682	-7,87
Sachsen	4566603	4220200	-7,59
Sachsen-Anhalt	2738928	2412472	-11,92
Thüringen	2503785	2289219	-8,57

Table 15. Change in population number in years 1995-2007 in Germany and in German States. Source: own presentation based on data from Regionaldatenbank Deutschland, www.regionalstatistik.de

However, the intensity of the process was by far greater than expected. In August 1989, out-migration from the GDR started to grow rapidly. The Fall of the Berlin Wall on 9th November 1989 resulted in the fact that the existing, very intensive out-migration from the GDR to Western Germany reached an even a higher level. Between 1989-1991, Eastern Germany was left by 800 000 persons. In the first half of the 1990s, the demographic situation seemed to stabilize. However, due to the worsening of the economy after 1997, the out-migration started to grow again. Until 2005 the area of the former GDR was left by another 200 000 persons. Altogether, the out-migration volume accounted to 6% of the initial population number (IWH 2006, 10).

The differences in demographic development between Western Germany and the GDR deepened after 1989. The Western German States profited from the high immigration wave, which started at the end of the 1980s. Newcomers were arriving from foreign countries as well as from Eastern German States. At the same time, Eastern Germany suffered from huge population losses, which were not compensated by the newcomers' inflow. Such a divergent demographic development in two parts of the country is quite exceptional (Table 15).

	Population change in % in periods:		
	1995-1999	2000-2004	2005-2009
Brandenburg an der Havel	-8,2	-3,4	-2,5
Cottbus	-10,0	-1,9	-3,5
Frankfurt (Oder)	-8,6	-9,6	-4,9
Potsdam	-5,6	12,7	4,8
Greifswald	-9,1	-2,9	2,0
Neubrandenburg	-7,4	-6,6	-4,5
Rostock	-10,7	-0,8	1,1
Schwerin	-10,3	-4,1	-1,7
Stralsund	-7,0	-3,0	-1,6
Wismar	-5,9	-3,4	-2,0
Chemnitz	-1,3	-4,2	-1,4
Plauen	5,8	-3,0	
Zwickau	1,5	-4,1	
Dresden	1,6	2,0	4,4
Görlitz	-4,9	-5,6	
Hoyerswerda	-13,0	-12,6	
Leipzig	4,0	1,1	3,2
Halle	-10,1	-3,7	-1,8
Magdeburg	-8,8	-2,1	0,4
Erfurt	-4,7	0,9	0,5
Gera	-7,2	-6,8	-3,8
Jena	-1,3	2,6	1,9
Suhl	-8,2	-9,1	-7,4
Weimar	0,5	3,3	1,0
Eisenach	-1,8	-1,2	-2,0
On average	-5,2	-2,6	-0,8

Table 16. Population change in % in the analyzed Eastern German cities between 1995-1999, 2000-2004 and 2005-2009. Plauen, Görlitz, Hoyerswerda and Zwickau lost the status of Kreisfreie Stadt in 2007 and their data for the period 2005-2009 were not accessible. Own presentation based on data from: www.genesis.destatis.de

The strongest depopulation process took place in Saxony-Anhalt, which in the given time frames lost almost 12% of its inhabitants. Brandenburg was characterized by quite steady population balance, but it must be remembered that the State profited from Berlin being located in its center. The areas around Berlin, which belong to Brandenburg, were growing

due to Berlin's suburbanization. However, cities located farther from Berlin have been undergoing a strong depopulation (e.g. Frankfurt/Oder).

The emigration from the former GDR has had a socially selective character. Usually young, qualified, mobile workers or students were deciding to out-migrate. Not only did their emigration have negative effects on Eastern Germany's economy but also on the birth rate flow. In 1989, 199 000 children were born in the GDR. In 1993, the number of newborns accounted to merely 81 000. Therefore, the total fertility rate dropped from 1.57 to the level of 0.76, presenting an unprecedentedly low number in history (IWH 2006, 12). It is estimated that Eastern Germany could lose 700 000 inhabitants due to the sharply decreasing birth rate (Glock 2006, 38). Only just in the mid of the 1990s the birth rate started to grow again.

This dramatic loss of population on the states' level was reflected by depopulation on a city level. From today's perspective the 1990s were the most difficult period in the Eastern German cities. The decade after the year 2000 was for them more favorable in the demographic terms, as Table 16 presents. The data show that the population decrease in the 1990s in the Eastern German cities was very high. However, then the demographic development started to stabilize. The number of Eastern German cities with stable or growing population has been increasing. Potsdam, Greifswald, Rostock, Dresden, Leipzig, Magdeburg, Erfurt, Jena and Weimar, which are the largest Eastern German cities, have the most positive demographic development nowadays. The rates of population losses in the other cities had generally decreased, although in many cases they are still very high (e.g. Suhl). Such a negative demographic development is still present in smaller cities, located in peripheries.

4.1.2. Advanced and accelerated ageing of the Eastern German cities

Despite the fact that in 1989 Eastern German States were demographically younger than the Western ones, they were ageing more intensively due to out-migration of the young and low birth rate. Nowadays, the youngest German State is Baden-Württemberg, where the average age is 42 years, while in German States such as: Saxony and Saxony-Anhalt (both located in Eastern Germany) the average age is above 45 years. These two states are nowadays the oldest in Germany.

The analysis of average age values in Saxonian districts for the period 1990-2008 proves the high dynamics of the ageing process (Table 17). In 1990, in all presented cities, with the

exception of Leipzig and Zwickau, the average age was lower than 40. Eighteen years later the average age is lower than 45 in only two districts. In Chemnitz it amounts nowadays to even 47.1 years.

	1990	1995	2000	2005	2006	2007	2008
Chemnitz, Stadt	39,7	42,2	44,6	46,4	46,6	46,8	47,1
Erzgebirgskreis	39,5	41,3	43,1	45,1	45,6	46,0	46,4
Mittelsachsen	39,7	41,3	43,0	45,1	45,6	46,0	46,4
Vogtlandkreis	41,2	42,7	44,2	46,0	46,4	46,8	47,2
Zwickau	40,7	42,3	43,9	45,7	46,1	46,5	46,9
Dresden, Stadt	39,1	40,8	42,4	43,1	43,0	43,1	43,1
Bautzen	37,6	39,7	41,9	44,3	44,8	45,3	45,8
Görlitz	38,5	40,6	42,9	45,5	46,0	46,5	46,9
Meißen	39,0	40,8	42,6	44,7	45,2	45,5	46,0
Sächsische Schweiz-Osterzgebirge	39,7	41,2	42,7	44,7	45,1	45,5	45,9
Leipzig, Stadt	40,0	41,8	43,2	43,9	43,9	44,0	44,0
Nordsachsen	37,7	39,5	41,5	43,9	44,4	44,9	45,4
Freistaat Sachsen	39,4	41,2	42,9	44,7	45,0	45,4	45,7

Table 17. Average age of population in Saxony, in urban (Kreisfreie Städte) and rural districts (Landkreisen) on 31th December 1990, 1995, 2000, 2005 and 2008, source: Statistisches Landesamt des Freistaates Sachsen, www.statistik.sachsen.de

In order to analyze the process of ageing in Eastern German cities it is indispensable to overview their demographic structure. Table 18 presents demographic data for 25 major cities in Eastern German.. The first column presents the percentage change of population in the period 1995-2007. The second one shows population number in 2007. The subsequent three columns present the shares of age groups (0-14, 15-64, 65+) in 2007.

In these Eastern German cities, in the period 1995-2007, the highest population decrease was noted in Hoyerswerda with -32.9%. For two of them (Suhl and Frankfurt/Oder) the depopulation exceeded 20%, in seven others it was higher than 15% and four lost more than 10% of their inhabitants. Among the 25 analyzed Eastern German cities, 14 had population losses higher than 10%.

The share of people aged 0-14 years oscillates in Eastern German cities around 10% (on average 9.9%). In 13 out of 25 cities this share is lower than 10%. In Suhl and Hoyerswerda it amounts to only 8.2%. In these two cities, the depopulation was the highest. The highest share of the young can be found in Potsdam with 11.8%.

The process of ageing in Eastern German cities is very advanced. In Hoyerswerda in 2007, 28.5 % of population was aged over 65 years. In five other cities presented in the table this share is higher than 25%. The lowest share can be found in: Greifswald 18.7%, Potsdam

19.2% and in Jena 19.6%. In all other presented cities in Eastern Germany this share is higher than 20%.

	Population change (%) 1995 - 2007	Population number 2007	Age groups in % in 2007		
			0 - 14	15 - 64	65+
Brandenburg an der Havel	-15,7	72954	9,2	65,6	25,2
Cottbus	-17,3	102811	9,2	69,3	21,4
Frankfurt (Oder)	-23,8	61969	9,8	68,7	21,5
Potsdam	8,6	149613	11,8	69,0	19,2
Greifswald	-13,5	53845	10,0	71,3	18,7
Neubrandenburg	-17,9	66735	9,9	69,7	20,4
Rostock	-13,4	200413	9,4	68,2	22,4
Schwerin	-17,8	95855	10,1	67,2	22,7
Stralsund	-13,1	58027	9,5	66,1	24,4
Wismar	-11,5	45012	9,1	66,7	24,1
Chemnitz	-8,2	244951	9,6	64,7	25,7
Plauen	-0,8	67613	10,3	64,6	25,1
Zwickau	-7,2	95841	9,6	65,4	25,1
Dresden	7,0	507513	11,0	67,5	21,5
Görlitz	-15,2	56724	10,4	62,7	26,9
Hoyerswerda,	-32,9	40294	8,2	63,2	28,5
Leipzig	6,4	510512	10,2	67,7	22,1
Halle (Saale)	-17,6	234295	10,4	67,2	22,4
Magdeburg	-12,6	230140	9,7	67,3	22,9
Erfurt	-4,7	202929	10,8	69,0	20,2
Gera	-18,2	101618	9,0	66,6	24,3
Jena	0,7	102752	10,5	70,0	19,6
Suhl	-23,3	41015	8,2	68,1	23,6
Weimar	3,6	64720	11,2	68,5	20,3
Eisenach	-4,7	43308	10,5	65,4	24,1
On average	-10,5		9,9	67,2	22,9

Table 18. Populations change 1995-2007 and age structure in 2007 of cities in Eastern Germany. Own presentation based on data acquired from: www.regionalstatistik.de

In most the presented Eastern German cities the share of the elderly is at least twice as high as the share of the young. Such a demographic composition highly determines future developments. Less young people will reproduce fewer children. This can lead to the assumption that the process of ageing can intensify in these cities. This is particularly valid for cities that continue to have decreasing populations like Suhl, Frankfurt/Oder, Neubrandenburg and Saxonian cities like Hoyerswerda, Plauen and Görlitz. The population of these cities will be ageing more quickly additionally due to outmigration of the young.

4.2. Spatial development

The contemporary urban policy carried out in Eastern Germany can be divided into two phases. The first one was characterized by a very optimistic vision of cities' development in the area. It was envisaged that after a short period of help from the West, the former GDR would enter a path of self-sustaining growth. A high deficit on infrastructure, dwellings and other real estates was anticipated (Pfeiffer 2005). These, as it later turned out, overestimated needs resulted in an intensive construction boom that, particularly in the 1990s, highly influenced Eastern German economy. Hence, despite the warning against maintaining the extensive urban development given in "Städtebauprognose DDR", this urban development policy was intensified after the Reunification.

However, as above presented, population of Eastern Germany was decreasing, at even a higher pace than during the socialism. High out-migration of the young caused the birth rate to decrease to the level never observed before. The economic development after reaching its peak in 1997 started to lose intensity. The result of the construction boom and the rapid depopulation was a "wasted overproduction" (Pfeiffer 2005) particularly on the residential real estate market.

The year 2000, when a report on vacancies in Eastern Germany was published (Pfeiffer, Simons and Porsch 2000), marks the beginning of the second phase in urban policy in Eastern Germany. Contrary to the previous one, it has rather a pessimistic overtone. Growth expectations, so far dominant in the urban policy, have been replaced by realistic approaches to problems arising from decreasing and rapidly ageing population. Suburbanization and growing land use began to be criticized and some measures were introduced to prevent them (e.g. Fläche im Kreis Project). Moreover, in order to counteract growing vacancy levels in both: inner and outer city parts several initiatives were introduced. One of the most prominent is the state program "Stadtumbau Ost" which started in 2002. In this program app. 280 000 flats in Eastern Germany were demolished (Liebmann, et al. 2010).

The following Part presents those spatial changes that took place in Eastern German cities after 1990. Firstly, focus is laid on the high intensity of one-family housing development that led to considerable growth of the cities' peripheries. This suburbanization, caused not only by residential estates but also industrial investments, resulted in a substantial increase of the land use and further strengthened an extensive urban development, which existed in the socialism.

However, this development is not reported by the statistics because, after 1990, the administrative areas of Eastern German cities expanded largely. The process of embodiment of surrounding areas (Eingemeindungen) into cities in Eastern Germany will be presented in a detailed way. It is worth noting that this issue received very little attention in the current German urban studies. Subsequently, attention is paid to the inner and outer city fragmentation and perforation. It has been continually taking place despite a need to improve inner city housing modernization and development postulated in the 1960s. Finally, the relation of the spatial and demographic development in the Eastern German cities is presented.

4.2.1. Suburbanization: very high in the 1990s

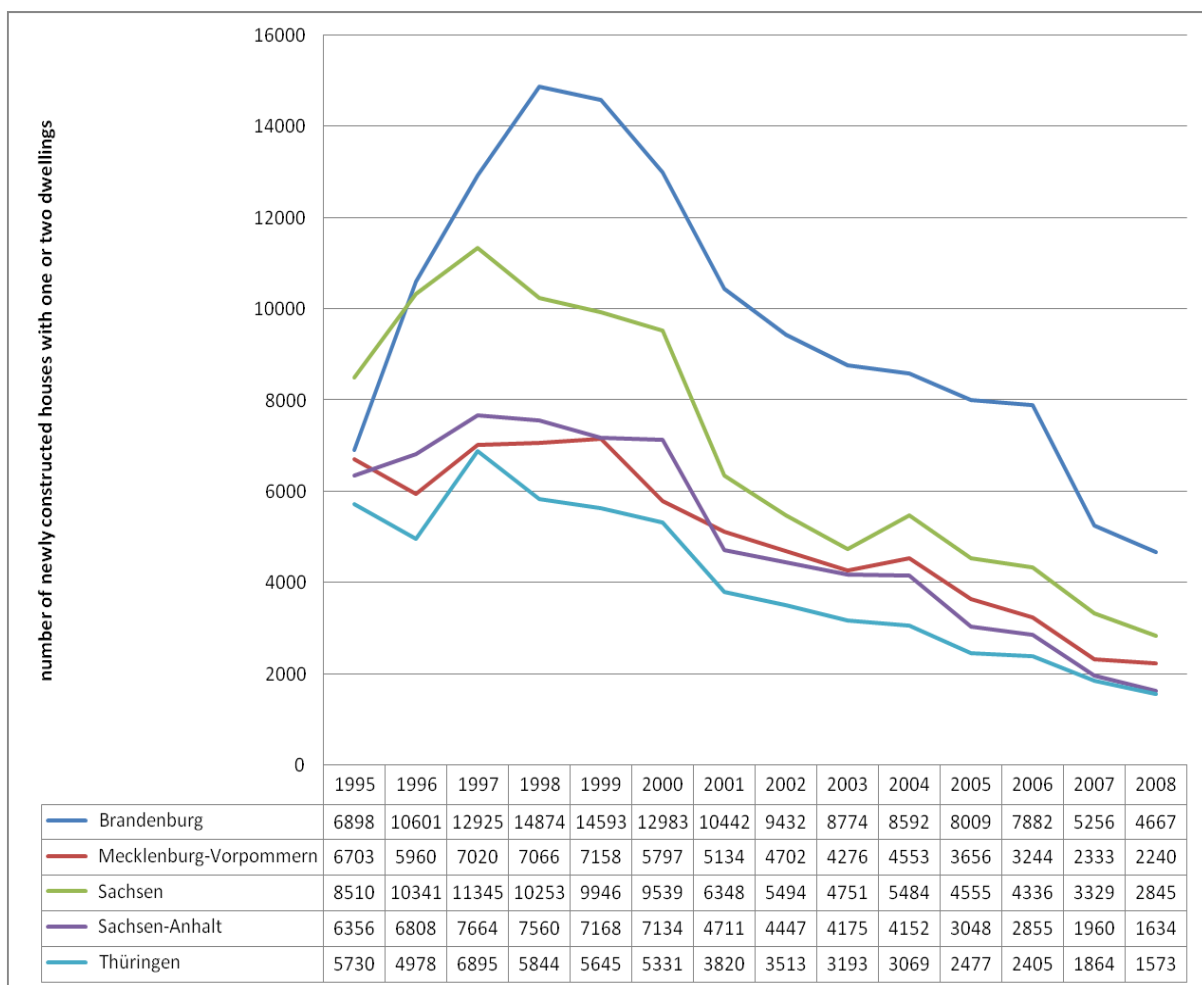
In the GDR, the construction of one-family houses was largely constrained. In 1967, only 1% of the dwellings built in that year were located in one-family houses, while at the same time the share of such flats amounted to 47% in Western Germany (Hoscislowski 2004). Such low construction rates in this flats' segment and expected growing demand for bigger flats (Hunger 1990, 25), may give a partial explanation for a very dynamic suburbanization of Eastern German cities after 1990.

A very important reason for the rapid development of Eastern German cities' peripheries were state subsidies whose goal was to strengthen and intensify the construction of one-family houses. Hence, the suburbanization process in Eastern Germany was not fuelled by an internal city growth and migration inflows. It was rather an artificial process caused by tax cuts (Glock 2006, 39) as well as directly and indirectly subsidized investments. Therefore, urban dispersion in Eastern Germany was taking place despite continuous population decrease and lowering employment rate. While suburban zones were noticing a population increase, inner and outer parts of cities were depopulating intensively. One-family housing was in fact the only opportunity of becoming a dwelling owner in Eastern Germany. Unlike in other post-socialist countries, in Eastern Germany flats in prefabricated buildings were not privatized. In the inner cities, privatization was also very low, mainly due to complicated restitution processes. As a consequence, after 1990, building activity around Eastern German cities was extremely dynamic even in relation to western experiences:

„Since the 1970s all western industrial countries register a relative loss of significance of cities cores as centers of economic activities and demographic growth processes due to structural changes in space. However, the speed and intensity with which the urban hinterland of large cities in Eastern Germany is growing, are enormous.“²²

(Glock 2006, 38), translated by A.C.

The suburbanization process in Eastern Germany was particularly strong in the 1990s. At the end of the 1990s, it started to decrease. Its intensity can be well measured by the number of newly constructed, detached houses (with one or two flats) (Picture 12):



Picture 12. Number of newly constructed houses with one or two dwellings yearly, in years 1995-2008, in Eastern German states (Länder) apart from Berlin. Own presentation based on data from www.regionalstatistik.de

²² “Zwar ist seit den 1970er Jahren in allen westlichen Industriestaaten zu beobachten wie der räumliche Strukturwandel zu einem relativen Bedeutungsverlust der Kernstädte als Zentrum wirtschaftlichen Aktivitäten und demographischer Wachstumsprozesse führt, dennoch sind die Rasananz und die Intensität, mit der das Umland der großen Städte in Ostdeutschland wächst, enorm.“ (Glock 2006, 38)

It can be easily seen that the highest numbers of building completion of such houses were noted in years 1997-1999. As in the GDR the construction of one-family houses was constrained, in 1990 the number of newly constructed houses with one or two flats was very low. This indicates high dynamics of growth in the 1990s. The number of building completion of such houses in Brandenburg amounted already in 1995 to nearly 7 000 while in 1998 it almost reached 15 000 (increase by 53.6%). However, from then on, there was a steep decline: in 2008 only 4667 houses with one or two flats were completed. This sharp decrease (by 68.6%) is actually the lowest among Eastern German States. In Saxony Anhalt the decrease from the peak point in 1997 to the level noted in 2008 was by 78.7%. In Thuringia the drop amounted to 77.2%. The course of the suburbanization process correlates with the economic development that is reported to have its peak in 1997. This confirms that the Eastern German economy was strongly relying on the construction industry.

The suburbanization process varied between Eastern German States in terms of scale. Brandenburg noted the highest volumes of newly constructed detached houses (peak point of 14 874 houses in 1998). This is due to the fact that Berlin, which is located in its central part, was undergoing a strong suburbanization process. Similarly, in Saxony, where Leipzig and Dresden, two major Eastern German cities, are located, the scale of suburbanization was also very high (peak point of 11 345 houses in 1997). In the other three Eastern German States the peak points did not come close to the level of 8000 units.

No other city part developed as quickly as city peripheries in Eastern Germany in the 1990s. This development included not only housing or industrial investments but also the construction of numerous large shopping facilities, for which a demand was growing due to increasing customers' number in these areas. Modern shopping centers contributed to growing attractiveness of the city peripheries and further exacerbated the situation in inner and outer city parts, which particularly in the 1990s, lacked such facilities.

The peak of the suburbanization process in Eastern Germany, which was at the end of the 1990s, marks the change from the existing growth oriented and extensive urban development into a more center oriented one. It is worth noting that this change from a very dynamic growth to a steep decline for the construction of one-family housing took place several years before the mechanisms supporting suburbanization were abolished (e.g. Eigenheimzulage in 2006). This could confirm that the lowering number of completion of one-family housing at

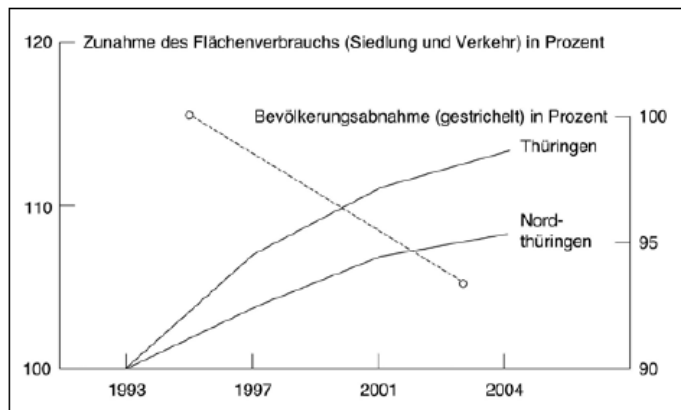
the turn of the 2000s was simply caused by lowering demand for such products on the residential real estate market in Eastern Germany.

High intensity of the land consumption in Eastern Germany

One-family housing around cities fuelled the land consumption in Eastern Germany to a great extent. Due to the relatively low land prices, the lots were larger than in the western part of the country (BBR 2005). Consequently, the same number of detached houses in Eastern Germany took relatively more space than in the West. These expanding settlements, though with decreasing inhabitants' number, required more and more traffic connections. Additionally, the whole road infrastructure in Eastern Germany needed improvement. Consequently, new highways and roads took large parts of the green field areas. They are still being expanded because it is expected that despite a decreasing population the number of cars is going to rise in the next years (BMVBW, BBR 2004). Another factor for the stimulation of the land consumption was the investments grounds. German Communes in the East were encouraged to set up "industrial parks" which were to attract investments. However, due to a large number of such prepared sites and insufficient number of coming investors, most of these parks are still empty today and they are ironically called "illuminated meadows" (Wiedemer 2005).

Land consumption continued to grow despite a lowering demand and a decreasing population number. It is estimated that in years 1993-2000 settlement and traffic area in Eastern Germany grew on average by 93 m² per inhabitant (from 543.8 in 1993 to 636.8 in 2000), which makes 14.6%. The increase was not evenly distributed over the Eastern German States. In Brandenburg, which in these time frames had rather stable population number, the settlement and traffic area grew by 72m² per inhabitant. In Saxony-Anhalt, which faced very high population losses, land consumption increase per one inhabitant was much higher and amounted to 147m² (Penn-Bressel 2003, 50). In Western German States, settlement and traffic areas grew at the same time by merely 24m², from 486.7 to 511.0m² in 2000 (Penn-Bressel 2003, 50).

Picture 13 presents divergent demographic and spatial development in Thuringia in years 1993-2004. In this period Thuringia lost 328 000 (-12.2%) citizens. However, the amount of settlements and traffic areas increased in years 1993-2001 by 11.2% (Cieřla and Genske 2007).



Picture 13. Land consumption (settlement and traffic area) increase and population decrease in Thuringia in period 1993 – 2004, source: (Genske, Ruff and Stuth 2007, 5)

Recently, a decrease in the rates of land consumption has been reported. It results mainly from the current low construction activity (DIfU 2007). Nonetheless, the land consumption still remains on a high level, while population continues to decrease.

In conjunction with a growing land use around cities and farther, in Eastern German inner and outer city parts vast abandoned areas appeared and the number of vacant buildings considerably increased. Only after the year 2000 the policy of neglecting brown fields and high consumption of green fields started to be gradually changed. New research projects (e.g. “Fläche im Kreis) and initiatives (e.g. “Genial Zentral” in Thuringia) were introduced. They aim at increasing attractiveness of plots located in inner or outer cities for residential or investment purposes.

4.2.2. Embodiment of surrounding areas into cities: „Eingemeindungen”

Surprisingly, the so called as “shrinking” cities in Eastern Germany do not contract, as the concept name suggests, but on the contrary, they expand. In other words less and less inhabitants of a “shrinking city” occupy more and more space. This process is not only physically taking place in space. “Shrinking cities” in Eastern Germany are also growing administratively. After 1990, in Eastern Germany a process of cities’ areas enlargement began. Therefore, nowadays they consist not only of inner (with pre-1945 structure) and outer (with prefabricated estates) parts (together forming a core city) but also of suburban zones.

The subject of the following part is the process of incorporation of surrounding areas to cities in Eastern Germany, commonly known as “Eingemeindungen”²³.

“The situation was that 40 per cent of all East German municipalities had fewer than 500 inhabitants and another 40 per cent had fewer than 5000 inhabitants. Up to 1993, it was almost impossible for these municipalities to make any wise long-term decisions, since they had neither any politicians who were aware of new regulations nor any professional personnel.”

(Häussermann 1996, 224)

After 1990 Eastern Germany became extremely fragmented by newly formed administrative units: communes. These communes were, as presented in the above citation, so small that their authorities were not capable of guiding their development.

	Number of communes		Change in the number of communes in %	Average commune's size in km ²	
	1995	2007		1995	2007
Germany	14626	12263	-16,16	24,42	29,11
Schleswig-Holstein	1129	1124	-0,44	13,99	14,03
Hamburg	1	1	0,00	755,30	755,33
Niedersachsen	1032	1024	-0,78	46,15	46,49
Bremen	2	2	0,00	202,14	202,12
Nordrhein-Westfalen	396	396	0,00	86,08	86,05
Hessen	426	426	0,00	49,57	49,56
Rheinland-Pfalz	2305	2306	0,04	8,61	8,61
Baden-Württemberg	1111	1109	-0,18	32,17	32,23
Bayern	2056	2056	0,00	34,31	34,31
Saarland	52	52	0,00	49,40	49,43
Berlin	12	12	0,00	74,31	74,24
Brandenburg	1696	420	-75,24	17,38	70,19
Mecklenburg-Vorpommern	1079	849	-21,32	21,49	27,29
Sachsen	860	502	-41,63	21,42	36,68
Sachsen-Anhalt	1300	1027	-21,00	15,73	19,91
Thüringen	1221	968	-20,72	13,24	16,71

Table 19. Change in the number of communes and their size between 1995 -2007 in Germany. Own presentation based on data from [www. regionalstatistik.de](http://www.regionalstatistik.de)

In 1995, there were 14 626 communes in Germany, whereas in 2007 this number diminished to 12 263 (-16.6%). As Table 19 presents, the number of communes remained basically unchanged in Western Germany. On the contrary, in Eastern German States, in period 1995-2007, the number of communes decreased by at least 20%. In case of Brandenburg the drop

²³ It was decided to translate “Eingemeindungen” as embodiment of surrounding areas instead of communes in order to avoid confusion. “Commune” describes namely an administrative unit of different size in Poland and in Germany.

was particularly high and exceeded 75%. Despite these measures the average commune size in Eastern Germany, particularly in Thuringia and Saxony-Anhalt, is still very small (below 20 km²).

In many cases, these were cities that absorbed adjacent communes. This process is well illustrated by the data presented in Table 20. It shows population change, city area development and density change in time frames 1995- 2007 for the 25 analyzed cities in Eastern Germany.

	Population number in 2007	Population change 1995 – 2007 in %	City's area in km ²		Area change in %	Density (inhabitants per km ²)		Density change in %
			1995	2007		1995	2007	
Brandenburg an der Havel	72954	-15,7	208,32	228,80	9,8	417	320	-23,3
Cottbus	102811	-17,3	150,32	164,28	9,3	830	628	-24,4
Frankfurt (Oder)	61969	-23,8	147,63	147,69	0,0	553	421	-23,8
Potsdam	149613	8,6	109,35	187,29	71,3	1259	799	-36,6
Greifswald	53845	-13,5	50,17	50,51	0,7	1230	1056	-14,1
Neubrandenburg	66735	-17,9	85,66	85,65	0,0	955	784	-17,9
Rostock	200413	-13,4	180,62	181,42	0,4	1278	1102	-13,8
Schwerin	95855	-17,8	130,14	130,53	0,3	898	736	-18,0
Stralsund	58027	-13,1	38,68	39,02	0,9	1731	1491	-13,9
Wismar	45012	-11,5	41,55	41,62	0,2	1224	1082	-11,6
Chemnitz	244951	-9,5	143,00	220,85	54,4	1896	1111	-41,4
Plauen	67613	-0,8	68,05	102,12	50,1	1009	667	-33,9
Zwickau	95841	-7,2	59,87	102,54	71,3	1734	939	-45,8
Dresden	507513	7,0	225,76	328,31	45,4	2094	1541	-26,4
Görlitz	56724	-15,2	44,11	67,22	52,4	1520	846	-44,3
Hoyerswerda	40294	-32,9	80,92	95,06	17,5	754	431	-42,8
Leipzig	510512	6,4	153,08	297,36	94,3	3119	1708	-45,2
Halle (Saale) (1996 – 2006)	234295	-17,6	134,97	135,02	0,0	2127	1763	-17,1
Magdeburg (1996 – 2006)	230140	-12,6	192,96	200,96	4,1	1361	1134	-16,7
Erfurt	202929	-4,7	269,08	269,10	0,0	790	753	-4,7
Gera	101618	-18,2	151,94	151,92	0,0	823	673	-18,2
Jena	102752	0,7	114,22	114,48	0,2	891	894	0,4
Suhl	41015	-23,3	102,74	102,71	0,0	525	403	-23,2
Weimar	64720	3,6	84,24	84,19	-0,1	739	766	3,7
Eisenach	43308	-4,7	103,84	103,84	0,0	440	419	-4,7

Table 20. Population, city's area and density in years 1995-2007 in the analyzed Eastern German cities. Own presentation based on data from [www. regionalstatistik.de](http://www.regionalstatistik.de)

In years 1995-2007, the cities in Saxony i.e. Chemnitz, Plauen, Zwickau, Dresden, Görlitz, Hoyerswerda and Leipzig underwent a process of a large area extension. Leipzig noticed a particularly high increase in area due to several incorporations of surrounding communes (Gemeinden). Its area increased by almost 100%. Consequently its density lowered from 3119

in 1995 to 1708 persons per km² in 2007. This very deep decrease took place despite population increase by 6.4%. A similar development, although with lower intensity, is observed in Dresden, where to an increasing population (+7%) corresponded the density decrease of more than 26%. Dresden's area grew in by over 100 km² (+45.4%) in the given time frames.

City area extensions in Saxony were not exceptional. In Brandenburg many cities underwent this process, too. In the case of Potsdam the increase in area was particularly high and amounted to over 70%. In Brandenburg an der Havel and Cottbus this increase was rather moderate (lower than 10%). Despite this fact, both cities noted a strong population decrease since 1995: by 15.7% and 17.3% respectively. Frankfurt/Oder, Greifswald and Neubrandenburg did not witness an area extension. Nonetheless, in the case of Frankfurt/Oder the city area was already much extended as proved by its very low population density: merely 421 persons/ km² (by 61 969 inhabitants in 2007).

In Thuringia the process of city areas enlargement took place in the first half of the 1990s, thus the changes could not be presented in Table 20. All major cities in Thuringia have very low population densities. This is particularly evident in the case of Erfurt which has over 200 000 inhabitants and a population density of merely 753 persons/km². Its area is only 30 km² smaller than that of Leipzig, which is inhabited by over 0.5 million people.

As presented in Table 20 in 2007, no large and medium-sized Eastern German city (Kreisfreie Stadt), had a density higher than 2000 inhabitants per km². Only in three cities (Dresden, Leipzig and Halle) it was higher than 1500 but it was still much lower than 2000. Out of 25 analyzed cities, which are major cities in Eastern Germany, 16 were inhabited by less than a 1000 people per km². Such low population densities imply the vast administrative areas of these cities.

The extended city areas in Eastern Germany, which in a large part are the outcome of embodiment of surrounding areas after 1990, have a great influence on their population number presented by the statistics. Thanks to the incorporation of surrounding areas a huge part of those who moved out to suburban zones were included again by the statistical system. This is particularly well illustrated by the case of Leipzig. Between 1990-1998, the city lost almost 100 000 inhabitants. However, at the beginning of 1999 the city "overnight" gained again over 60 000 inhabitants due to its area extension (Glock 2006, 105). The example of Leipzig is not an exception, as presented in Table 20.

Despite having very extended areas, many Eastern German cities noted extreme population losses. Hoyerswerda lost 32.9% of their inhabitants, Frankfurt/Oder 23.8% whereas Suhl 23.3%. These very high population losses took place despite these cities' vast areas that are proved by their very low population densities: merely around 400 persons per km². As already noted, in such extended areas, suburbanization is not registered by the statistics as the reason for city's depopulation for it is taking place within their administrative borders.

As the Eastern German cities' administrative areas are nowadays much extended and they include suburban zones, suburbanization should not be considered as the main reason for the cities' depopulation reported by the statistics.

4.2.3. Inner and outer city: perforation

Eastern German cities entered capitalistic phase with inner city areas being in state of dilapidation and partially abandoned. On the contrary, outer city parts with prefabricated estates were well maintained and highly occupied. This structure started to change after 1989. Despite the need to introduce a more center oriented urban development as claimed in "Städtebauprognose DDR" (Hunger 1990), the extensive urban development of the GDR period strengthened in the 1990s due to suburbanization process. Large out-migrations of the young contributed to accelerate ageing and depopulation for the inner city areas. However, the inner cities were not the only one to depopulate, as the same process started to occur in outer cities with prefabricated estates. The more attractive living possibilities in one-family houses on the city outskirts caused the prefabricated blocks of flats to lose their appeal.

Two phases can be distinguished in the development of inner cities in Eastern Germany. As opposed to the suburbs, which in the 1990s faced a very intensive growth, the inner cities suffered from intensive depopulation and reputation decline at the same time. It is important to remember that these negative processes in inner cities did not begin with the system change. As already presented in Part 3.3.4, inner cities in the GDR period were already avoided by their inhabitants, because they were in state of dilapidation and lacked many functions and services that were rather located in outer cities. This situation did not change for better in the 1990s, when many inhabitants of Eastern German cities started to move out to suburbia. These migratory movements contributed to a considerable lowering of customers' number in inner and outer cities while it substantially increased in the suburbs. Such a

development had a major consequence on the retail market development. Large shopping centers were created on the edge of cities following customers move. At the same time existing shops and other facilities in inner and outer cities faced substantial difficulties due to lack of demand. Consequently, Eastern German cities' central areas remained throughout the 1990s boring and unpleasant places, neglected by their inhabitants.

At the turn of the 2000s this situation started to change positively. Suburbanization trend slowed down and the inner cities started to regain their appeal as a place for living. This largely happened due to renovation processes, many of which were finished at that time. Although in the 1990s high funds could be spent on renovation and modernization of pre-1945 housing, there were substantial obstacles in doing so, which resulted from unclear ownership rights for these real estates. Restitution processes were often very complicated and it took many years to finally solve them. Nonetheless, in the late 1990s large parts of many inner cities in Eastern Germany were managed to be splendidly renovated. Destroyed in WW II, Dresden central area was carefully reconstructed. The city is now creating its image as a center of art and culture. Another important example of such accomplishments is Weimar which in 1999 was the cultural capital of Europe. For this occasion the whole Weimar inner city was restored not only in esthetic sense but also in technical one as new infrastructural solutions were introduced. Moreover, some new shopping facilities were opened in inner cities (e.g. Leipziger Hauptbahnhof) at the turn of the 2000s, which started to positively influence their development.

After 2000, some cities started to note a population increase in their core areas. Even inhabitants' numbers in central areas of depopulating cities like Chemnitz were growing in years 2002-2005 (Wiest 2005). As a consequence, cities in Eastern Germany were announced to be re-urbanizing. One of the most important reasons for such a development is that the quality of life in the Eastern German inner cities considerably improved. This happened largely due to the above described wide renovation measures. More esthetic and functional inner cities started to be competitive as a place for living with other city parts, particularly the suburbs.

Nonetheless, it is reported that the increase in the inhabitants' numbers in inner cities is caused by the move of the elderly from the suburbs where living conditions do not meet their needs any more (Gatzweiler, Kuhlmann, et al. 2006, 12). Their number is expected to increase by 1.5 million in inner cities in years 2006-2020. At the same time younger part of population

aged 30-50, which is viewed as of major importance for city resurgence because it builds families and buys housing real estates, is decreasing. According to the estimations, it is going to fell down by 1.2 million in the same period. Some researchers are convinced that the sustained regeneration of the inner cities in Eastern Germany lacks population potential (Gatzweiler, Kuhlmann, et al. 2006, 26).

Perforation of the urban structure

In 2001, one million flats were vacant in Eastern Germany, which makes 13% of the total number. 0.5 million of these flats were well equipped and in good technical condition (Krings-Heckemeier, Porsch and Schwedt 2001, 3,5). These vacancies were located not only in prefabricated buildings, dating back to the socialism but also in the pre-1945 housing stock:

Pre-1945 housing	20%
Prefabricated blocks	13,5%
Housing after 1990	4,7%

Table 21. Housing vacancies in 135 Eastern German cities, according to building’s age in 2001, source: (BMVBW; BBR 2003, 16)

Thus, at the beginning of the 2000s, vacancies’ problem still regarded more pre-1945 housing than prefabricated blocks²⁴. After 1990, in many cases, inner cities with pre-1945 structure, were depopulating faster than the prefabricated estates (BVBW 2003b). Moreover, as a result of a rapid deindustrialization numerous industrial vacancies appeared and many infrastructural objects like schools and kindergartens began to be redundant due to advanced ageing of the population.

The problem of empty buildings became so large and imposed such a negative burden on the cities’ image that it was decided to introduce a state program which main task was to remove, at least, a part of such buildings. Such a policy was already conducted in the GDR when over 1.5 million flats located in pre-1945 buildings were torn down. Furthermore, the Authors of “Städtebaprognose DDR”, published in 1990, also postulated the need to demolish 129 000 flats in GDR’s cities in period 1990-1995 (Hunger 1990, 115).

²⁴ However, this may vary. In Leinefelde which has vacancy level at 17.7%, the majority of unoccupied flats are located in prefabricated blocks (95%). Contrary, in Leipziger Osten with the vacancy level amounting to 31%, all empty flats are located in the pre-1945 buildings (BMVBW; BBR 2003a).

In 2002 the program “Stadtumbau Ost” was launched, in which 280 000 flats were demolished until 2010, 80% of which were located in prefabricated blocks (Liebmann, et al. 2010, 69). Hence, the current demolishing activity concentrates in outer cities.



Picture 14. Perforating urban structure in Eastern Germany. Demolition of prefabricated buildings in Dresden, March 2010, photo: Ciesla

However, approx. 56 000 of demolished flats were in pre-1945 buildings, some of which could have a great historical value. In some cases, pre-1945 housing was demolished instead of previously planned demolition of prefabricated blocks as the example of Chemnitz proves. In 2001, 25% of flats in this city were vacant. Plans envisaged the demolition of the entire prefabricated estate Hutholz-Süd, and the relocation of inhabitants to the 19th century district in inner city (Chemnitz-Brühl). However, the inhabitants of this prefabricated estate strongly protested against such a decision and the city authorities, due to some political reasons, accepted people’s demands. The demolition of socialist blocks was cancelled while 19th century buildings in Chemnitz-Brühl started to be torn down (Grünzig, 2005).

Consequently, Eastern German inner cities after 1989 continued to perforate as they used to in the GDR era. Streets, which once formed a compact and clear urban entity, have been dissolving and traditional, developed over centuries structure has been disintegrating:



Picture 15. Inner city of Altenburg, town in North-Eastern Thuringia, yellow colour: buildings which were demolished in period 1950-2001, photo: A. Ciesla

Nowadays, the situation of the residential market in Eastern Germany seems to stabilize. This is not only due to stabilization of the demographic development but also due to the increasing households' number (formed by those born during the demographic high at the end of the 1970s). Throughout the 1990s and 2000s, the number of households grew by app. 800 000. However, it is foreseen that after 2015, with a substantial decrease of the household number, the demand on flats may again decrease abruptly in Eastern Germany (Krings-Heckemeier, Porsch and Schwedt 2001, 3). This can result in renewed difficulties on the residential real estate market in Eastern Germany and can produce again more vacancies.

4.2.4. Relation of spatial and demographic development

The population development highly influences the spatial development of a city. Kaufmann distinguishes between the intensive and extensive investments (Kaufmann 2005, 69), known in the Polish literature as quantitative and qualitative development (Parysek 2005), which go along with population change. Quantitative development of a city takes place when the population is rapidly growing. At that time the basic investments are being created, among which the most important one is housing. When these basic needs get saturated and the population growth is not intense it is time for the qualitative development. In this phase cities are being completed with so far missing functions, or enriched with new ones well corresponding to the post-industrial conditions (cultural centers, museums and other amenities).

In the pre-1945 period the cities development in Eastern Germany was very growth oriented. High population increments were mirrored by a high increase in the spatial structure. This is well exemplified by the case of Leipzig, which developed very intensively at the end of the 19th and beginning of the 20th century. Even today its housing stock is dominated by buildings created before 1948: 58% of the entire housing stock (Krings-Heckemeier, Porsch and Schwedt 2001, 47). This supports the finding presented in Chapter 3 that the greatest urban development in Eastern Germany took place at the end of the 19th century and that the GDR cities did not have acute housing problems, as the other socialist cities did.

In the following period: the socialism, the spatial development of the Eastern German cities was also very dynamic. The GDR cities could not enter the post-industrial phase as did those in Western Germany. They were forced to come through a renewed phase of industrialization. However, an intense demographic development was not any more present. The population was decreasing in towns and in some cities. In the others it was only moderately growing. Despite this fact more than 2 million flats were constructed in the GDR. They were located in the prefabricated buildings in the outer cities. As a result of this very intense construction of new housing, which was not justified by a high demand, the existing one in the inner cities was made redundant. Around 1.5 million flats in pre-1945 buildings were demolished in the GDR (Häussermann 1996, 219).

In the 1990s the Eastern German cities witnessed again a phase of a very intense quantitative development, despite the fact that the population was decreasing at a much greater pace than

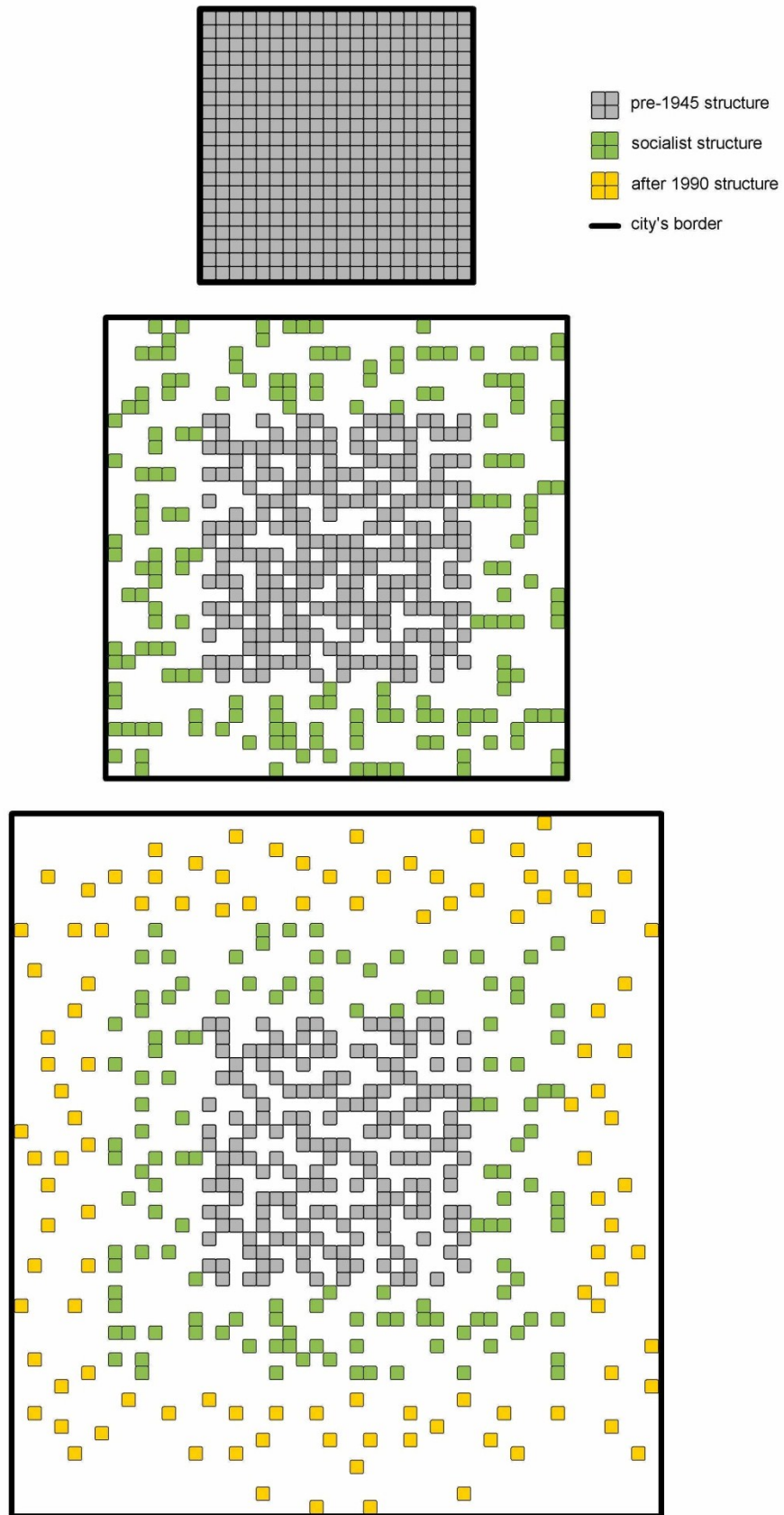
before. Such a development led to increasing problems on the residential real estate market and caused great spatial problems in the Eastern German cities.

Therefore, it can be stated that in the period 1945-2000 the spatial development of the Eastern German cities was exceeding the demographic one. It was very growth oriented as if the population was rapidly growing as it was in the pre-1945 period. For over half a century this very extensive urban development by decreasing or only moderately growing population caused that the Eastern German cities were perforating and spreading.

Hoscislawski notices that the GDR's construction policy, which highly influenced urban development, resulted in cities' spatial perforation and that its remnants imposed a great burden for the urban development after 1989. In his opinion, even if the GDR had existed longer and the change from quantitative into qualitative (center oriented) urban development would have been successfully introduced at the turn of the 1990s it would be not possible to fill in all empty plots in the inner cities due to missing population potential (Hoscislawski 2004).

Nowadays, generalized structure of an Eastern German city is composed of three elements and it is graphically presented in Picture 16:

- inner city with pre-1945 structure, highly perforated and depopulated
- outer city with prefabricated estates built in the socialism, with a loose structure, depopulating and perforating as well
- suburban zones which developed intensively after 1990, incorporated in large part into the administrative area of a city



Picture 16. Eastern German city model in three periods: pre-1945 (top), socialist (middle), after 1990 (bottom), own presentation

4.3. Economic changes

This Part deals with some economic changes, which took place in Eastern Germany after the Reunification. Firstly, the reasons for the economic crisis and transformation from socialism into capitalism are presented. Subsequently, the influence of the demographic structure of Eastern German cities' population on their economic development is described. Finally focus is laid on ownership structure of the residential real estates.

4.3.1. Economic crisis, transformation from socialism into capitalism

Eastern German economy started to weaken after the introduction of political zones. Many companies (Siemens AG, IBM) were moved away from the Soviet zone into the American one, building the foundation for a later economic growth of southern Germany (Bayern and Baden-Württemberg) (Häussermann and Siebel 1987). Parallel to this voluntary flight, compulsory company moves were also taking place. They were due to post war agreements for which many factories were dismantled and moved to the Soviet Union.

Despite these measures, the GDR's economy developed well in the 1960s and 1970s. Its industrial output was very high, particularly in comparison to Poland:

	Electrical energy (kWh)	Energy resources (kg)	Crude steel (kg)	Plastic materials (kg)	Cement (kg)	Cars (per 1000 inhabitants)
GDR	3942	4764	296	20,2	468	7,44
ČSSR	3122	5461	793	16,8	511	9,89
USSR	3048	5026	477	6,9	392	1,42
Poland	1967	4804	360	8,2	371	2,08

Table 22. Production of chosen industrial products per inhabitant in the GDR, ČSSR, USSR and Poland in 1970, source: (Buchhofer 1976)

Nonetheless, in the 1980s, the GDR's economic development slowed down, following the trend of socialist economies at that time.

October 3rd 1990, when German Reunification took place, marks the definitive collapse of the socialism and the quick introduction of capitalism in Eastern Germany. The process of transformation from socialism into capitalism for former GDR has gained momentum²⁵ since then. In the following years Eastern Germany was a subject of intense investments. Large

²⁵ The process of the system change in Eastern Germany was evident earlier. In August 1989 a huge out-migration from GDR began. It gained momentum after the Fall of the Berlin Wall in November 1989.

monetary transfers from the West were aimed at the reduction of differences in development levels within the reunified Germany. The program “Aufbau Ost” launched in 1990 had initially (until 2004) a budget of 94.5 billion Euros. It was used to finance urban regeneration, redevelopment of hazardous waste sites and to support industrial centers. Additional funds of 64 billion Euros were provided for infrastructure development, which included the construction of new roads’ and rail routes. Moreover, the Eastern German communes had the opportunity to obtain financial help from the EU.

It was assumed that all taken measures were to be an “initial aid package” which would allow Eastern German economy to become self-sustaining (Schmidt 2005). However, the positive economic development reached its peak in 1997 and then started to lose on intensity. Since then the unemployment rate has been rising and the out migration has reappeared. Nowadays, the unemployment rate in Eastern Germany accounts to 14% (April 2009). The gap between Eastern and Western Germany in terms of value creation potential is growing in size. It is assumed that Eastern Germany will not be able to reach the average economic growth of the EU within foreseeable future or even the admittedly modest growth of Western Germany (Schmidt 2005).

Undoubtedly, high monetary transfers to Eastern Germany after 1990 relieved, to a great extent, the pains of the transformation process. Other countries of the post-socialist block did not profit from such a support and they had to cope with the arising problems on their own. However, in no other country, which once belonged to the socialist block, was this transformation so quick and radical. It should not be surprising, that there are a lot of controversies about the system change of the former GDR.

Rudi Schmidt argues that the German Reunification took place under political premises, and the economic consequences were viewed as being of only secondary importance. Firstly, citizens in Eastern Germany were to accept the new political system. In order to achieve this, policies whose aim was to equalize wages of Eastern Germans to the western level were introduced. However, at the same time, the state did not protect the industrial companies (Schmidt 2005). In June 1990, the German government created a trustee agency, Treuhandanstalt, to privatize the Eastern German economy. Until the end of 1994 it disposed of 14 000 companies. 2.5 million jobs in the industry were lost in Eastern Germany in only

four years (Andrusz 1996, 41 - 42)²⁶. Thus, this radical privatization of industrial assets resulted in a rapid deindustrialization. It was assumed that removing socialist, often outdated, industry would allow for the emergence of new investments with higher technology. Nonetheless, soon, locations in the Central and Eastern Europe, as well as in South-Eastern Asia, turned to be more attractive for transnational investors (Bürkner 2005).

This deindustrialization resulted in a radical decline of company sizes in the former GDR: from the large combines of socialism to rather small business. The average company size is now smaller than in Western Germany. Such small companies have lower chances of expanding into foreign markets. This is why business originating from Eastern Germany has very little representation in Western countries (Schmidt 2005).

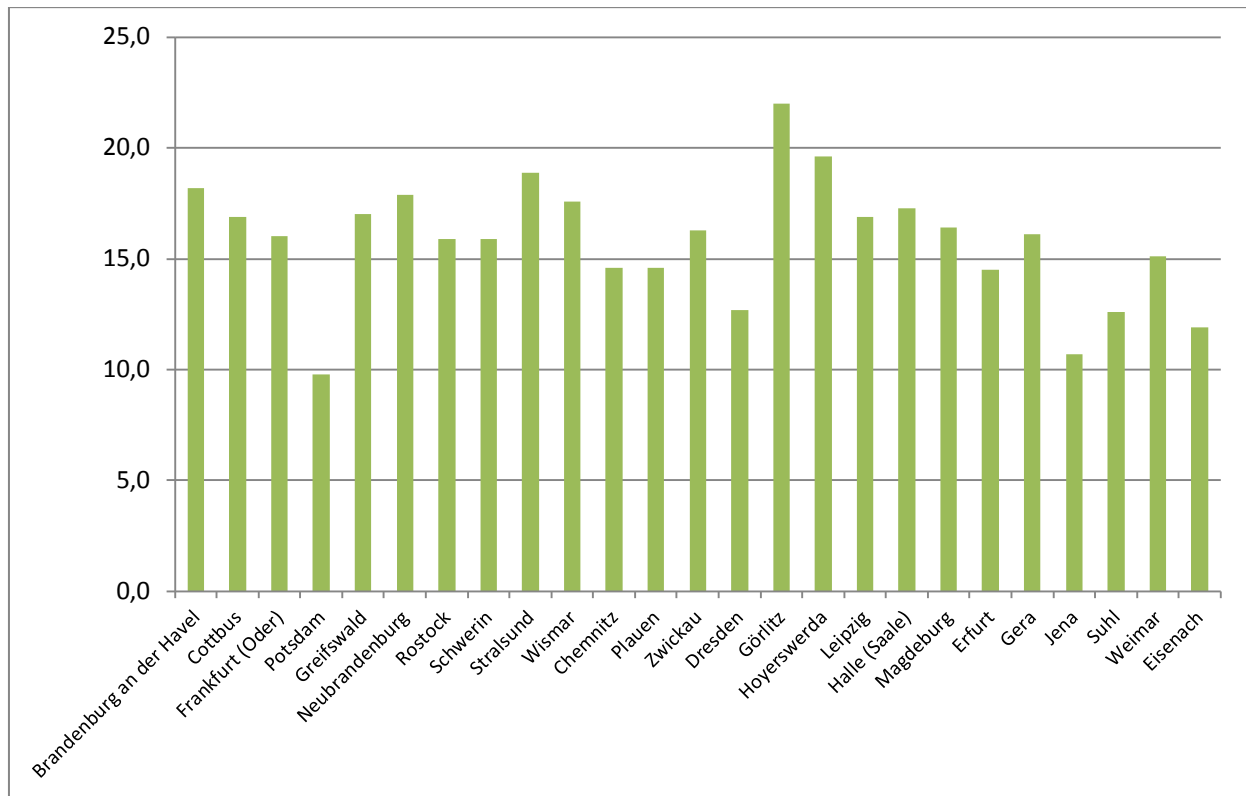
Huge losses in the construction industry are considered to be an important reason for the economy decline in Eastern Germany since 1997. This industrial sector developed excessively after 1990 due to the construction boom, which was fuelled by subsidized private housing and infrastructures. After 1997, it started to decline to the level observed in Western Germany (C. Hannemann 2004, 88).

Christine Hannemann considers the industry collapse to have the greatest consequences for the economic basis of Eastern German cities. 70% of job losses after 1990 occurred within this industrial sector (C. Hannemann 2004, 84). Consequently, the industrial output of Eastern Germany decreased substantially. In 2002, manufacturing industry's share of Eastern Germany's total revenue amounted to 26%, while in Western Germany it was 35% (Schmidt 2005).

However, it is Christine Hannemann's opinion that, both the existing explanations of deindustrialization as "tertiarisation of production" as well as reduction of traditional production without compensating it with modern services cannot fully describe the changes which have taken place in Eastern Germany since 1990. She claims a more proper term for the economic changes in the area, in her view, is: de-economization (de-Ökonomisierung) (C. Hannemann 2004, 89). It consists not only of deindustrialization but also of "de-Agrarisierung" (loss of jobs in agriculture), "de-Militarisierung" (loss of jobs in the army) and "de-Administrierung" (loss of jobs in administration).

²⁶ The same value is given by Christine Hannemann. She reports (after Lutz/Grünert 2000) that, in 1989, in the industrial sector of the GDR almost 3.8 million workers were employed, but in 1993 not more than 1.3 million (C. Hannemann 2004, 84).

Agriculture was an economic basis for many towns in Eastern Germany. In 1985, 850 000 workers were in this sector, which was twice as much as in Western Germany at the same time (C. Hannemann 2004, 85). Between 1989-1993, the decrease in number of jobs in agriculture reached almost 80%. Nowadays, no town with agriculture-based economy exists in Eastern Germany. De-Militarisierung meant losses of jobs in national army (e.g. by reducing border guards) as well as in secret police. The garrisons exerted a great influence on the economy of many towns and cities (C. Hannemann 2004, 86) in socialist countries. Not only did they create job places for the military and civil workers but also required a set of services. With the reduction of garrisons and other military formations a high unemployment rate in those towns and cities appeared. New administrative divisions, which were introduced after 1990 in Eastern Germany, caused some cities and towns to lose the previous status. As a consequence numerous jobs reductions in administrative sector took place.



Picture 17. Unemployment rate in 2007 in the analyzed Eastern German cities, Source: own presentation based on data from www.destatis.de

Hannemann concludes that the main problem of the Eastern German cities is not the transformation of their economic basis but its total erosion (C. Hannemann 2003, 19). Nowadays, the market economy is not the basis of Eastern German cities (C. Hannemann 2004, 89-90). This is supported by the analysis by Pohlan and Wixforth, who prove that, in

cities in Eastern Germany the ability of financing themselves from their own resources is lowering substantially. Eastern German cities depend on financial aid much more than cities in the West, even than those regarded as being in crisis (Pohlan and Jürgen 2005).

As a result of the above described tendencies the unemployment rate in the main Eastern German cities remains high, as Picture 17 presents. These high unemployment rates, which from 2007 did not substantially reduce (in September 2010 the unemployment rate in Dresden was 10.2%, while in Leipzig 13.6%) cause intensive outmigration of those searching a job. This brain drain may have negative consequences for the economic development of those cities in the future.

4.3.2. Influence of the demographic structure on economic development

At the date, the economic difficulties resulting from deindustrialization in Eastern Germany are not as decisive as they were in the 1990s. However, the age structure changes of the Eastern German population start to negatively affect the economic development.

“These changes are arguably as important as population growth. Each age group in a population behaves differently, with distinct economic consequences: the young require intensive investment in health and education, prime-age adults supply labor and savings, and the aged require health care and retirement income. (...) When the relative size of each of these groups in a population changes, so does the relative intensity of these economic behaviors.”

(Bloom, Canning and Sevilla 2003, 20-21)

Throughout the GDR time, despite depopulation, the population in productive age was growing. In years 1970-1986 the number of people in productive age grew by 800 000 persons (+9%) (Hunger 1990, 28). The population in productive age was not burdened by a high number of the elderly and children, as the birth rate was low. Such a demographic structure was favorable for the economic development (Kaufmann 2005, 68). However, at the end of the 1980s, the population in productive age of the GDR started to decrease (Hunger 1990, 28). In “Städtebauprognose DDR” it was called for actions to prepare for the consequences of such a demographic development.

After 1989, when migration to the West became possible without any restrictions, over 1 million people left Eastern Germany, mostly the young, during a very short period of time.

Their out-migration largely accelerated the ageing process of the Eastern German population. Nonetheless, after the Reunification, the retirement age was prolonged for women by 5 years (to the level in Western Germany), which eased the economic consequences of ageing in Eastern Germany for a while.

Nowadays, the process of ageing in Eastern German cities is very advanced. It is well illustrated by the case of Chemnitz, which according to statistics, in the period between 1995-2009, lost 8.7% of inhabitants. Table 23 presents the change of demographic age groups (0-14, 15-64, 65+) and population development in the years 1995-2009. The population increase in 1999 was a result of the incorporation of vast surrounding areas, where suburbanization was taking place. Chemnitz area increased by over 50% and it amounts today to 220km².

Year	Population number	Chemnitz		
		0 - 14	15 - 64	65 and more
1995	266737	13,7	69,1	17,2
1996	259187	13,0	69,3	17,7
1997	259126	12,3	69,6	18,1
1998	251903	11,7	69,7	18,6
1999	263222	11,3	69,6	19,1
2000	259246	10,9	69,2	19,9
2001	255798	10,5	68,9	20,6
2002	252618	10,1	68,5	21,4
2003	249922	9,7	68,0	22,3
2004	248365	9,4	67,3	23,3
2005	246587	9,2	66,5	24,3
2006	245700	9,4	65,5	25,2
2007	244951	9,6	64,7	25,7
2008	243880	9,9	63,7	26,4
2009	243089	10,2	62,7	27,1

Table 23. The age groups (under 15, 15-64, 65 and more) in % in Chemnitz in years 1995-2009. Source: own presentation based on data from Statistisches Bundesamt (www.genesis.destatis.de)

In 15 years the number of senior residents in Chemnitz increased by over 10% while that of the young decreased by 3.5%. In 1995 the difference in the shares of the elderly and the young amounted to only 3.5%. Later, this difference grew considerably and currently it is almost 17%. This high disproportion is expected to grow in the future despite growing shares of the young since 2005. The number of the young (0.3% annually) is namely not growing as quickly as that of the elderly (0.7% annually).

At the end of the 1990s, the number of people aged 15-64 started to decrease in Chemnitz. This decrease is accelerating and currently it amounts to 1% annually. Judging from the low

share of the young the chances for stabilization of the productive population share in Chemnitz are rather low. Such a demographic development, where the number of people in productive age is clearly decreasing while the share of the elderly is increasing may negatively influence the economic development of the city. Various studies prove namely that a population growth among adults promotes income growth while population growth among the elderly tends to slow the growth (Bloom, Canning and Sevilla 2003, 49).

Many cities in Eastern Germany are already characterized by extreme demographic dependency, where many old-age dependents are supported by a disproportionately small workforce. It is expected that in the coming decades the decrease of productive population (15-64 years) will be two times higher than the overall population decrease in Eastern Germany (Ragnitz, et al. 2006, 35).

In a city where more than 25% of population is aged 65 years and over a large part of those in productive age is working to help and support the elderly. These are not only members of medical staff like doctors or nurses but also professionals offering daily care. In this way, a large number of job opportunities in a “shrinking city” consist of serving the elderly. This relatively small and constantly decreasing workforce supporting large number of old-age dependents pays fewer taxes and, consequently, the economic situation of the city further exacerbates.

4.3.3. Low privatization of the housing stock

Despite the radical privatization of the industrial assets in Eastern Germany the privatization of the existing housing stock as in other post-socialist countries did not take place. Nowadays, the level of private housing ownership in Eastern Germany amounts to merely 35% and it is not only much lower than elsewhere in Central and Eastern Europe but also in Western Europe and even Western Germany (44,5%).

There are several reasons for such a low rate of individually owned flats in Eastern Germany in comparison to other post-socialist countries. First of all, the nationalization of land and housing went much further in the GDR than in other socialist countries. Not only was there the entire urban real estate market collectivized but also rural areas were in an overwhelming part nationalized. It has to be remembered that the majority of rural land and its real estates in

other socialist countries (which did not belong to the Soviet Union) remained privately owned.

In Eastern Germany, it was forbidden for the housing associations to sell their housing stock at low prices to tenants or to any other purchaser. The price per square meter was set on the level of about 2000 DM, which was supposed to be below market value (Häussermann 1996, 229). At the same time, measures to support one-family housing development in Germany were introduced. As investing in this type of residential real estate was socially more desired and economically more profitable, privatization of the prefabricated housing through the sale of flats to individual purchasers was, in comparison to other post-socialist countries, practically inexistent.

Moreover, Eastern German inner city areas with pre-1945 housing faced substantial problems with restitution. In some cases the owner could not be found while in others it was difficult to identify him as there were many persons claiming a right to the building (Marcuse 1996, 159). It has to be remembered that the inner city areas with pre-1945 structure in Eastern Germany are much larger than in other cities of Central and Eastern Europe (as presented in Chapter 3). Therefore, the number of restitution processes as well as the scale of their complexity was greater in Eastern Germany than in other post-socialist countries.

The low share of individually owned flats in Germany is ascribed by German Analysts to a high number of multifamily buildings, whose privatization is considered to be more difficult than that of one-family houses (Behring and Helbrecht 2002, 168). Consequently, in Germany, one-family houses are combined with private ownership while flats in multifamily buildings are rarely individually owned, but mostly belong to the rental assets of big owners (e.g. municipality). The analyses reveal that one-family housing is a highly desired form of living in both Eastern and Western Germany (Behring and Helbrecht 2002, 158). This gives a partial explanation to the intensive suburbanization process that took place in Eastern Germany after 1990. Not only did the generated boom for single family housing increase the low share of privately owned housing in Eastern Germany but it also contributed to the satisfaction growth of population living there. Home ownership was namely very much desired by people who were deprived of possibility of owning real estates for a long time.

Undoubtedly, the number of private actors highly influence the development of the real estate market in cities, particularly that concerning residential units. In Eastern German cities their number remains low. Most flats in inner and outer city parts in Eastern Germany are rented

and belong to the large owners. It might be assumed that this low home ownership level eased the mobility of Eastern Germans as tenants are less bound with occupied flats than the owners, and consequently leave them more often.

4.4. Interim conclusions: negative tendencies in demographic and spatial development strengthened

Population decrease in the Eastern German cities is not a new phenomenon. Some of them began to depopulate already in the in-between war period. Some were also depopulating during the socialism. At the end of the 1980s the GDR planners forecast a further population decrease. More and more cities were expected to start losing inhabitants. Hence, the intensive population decrease after 1989 was in fact a continuation and strengthening of the existing trend. Between 1995-2007, the analyzed Eastern German cities lost on average -10.5% of inhabitants. However, in some cases population losses exceeded - 25%.

Throughout the socialism, despite population decrease, the spatial development of the Eastern German cities was very growth oriented. This phenomenon intensified in the 1990s. Although the population was dramatically decreasing the construction activity raised considerably, much beyond the real needs. Such a development had a very negative influence on the inner and outer cities, because they depopulated very quickly and there appeared thousands of empty flats and houses. The numerous vacancies caused that the problems of the Eastern German cities could not have been overseen any more.

These problems related not only to the demographic and spatial issues but also comprised the economy. In only four years 2.5 million people in Eastern Germany lost their jobs. Despite very many impressive efforts, which aimed at increasing the attractiveness of Eastern German communes for investors, new investments occurred rarely and the unemployment rate remained very high.

However, despite these negative processes in the 1990s, a positive mood prevailed among the people. High construction activity, fuelled by high money transfers from the West, gave the impression that the development goes in the right direction. This attitude changed after the publication of the report on the residential real estate market in 2000. This publication marks the beginning of the second phase in the urban development in Eastern Germany. This phase in the urban discussion is more negatively connoted than that of the 1990s, although the

intensity of depopulation, deconcentration and deindustrialisation largely reduced in the Eastern German cities after 2000.

In the 2000s some cities in Eastern Germany like Leipzig or Dresden started to note population increase. The others noted decreasing rates of population losses. This change in the population development took place for three reasons. Firstly, it was largely caused by extensions of the cities' administrative areas that have taken place at the end of the 1990s. Nowadays, the administrative areas of the Eastern German cities include at least a part of their suburban zones and therefore the suburbanization should not be treated as the main reason for the population loss presented by the statistics. Secondly, at the end of the 1990s the suburbanization process slowed down, mainly due to the fact that the needs for one-family housing got saturated and therefore the demand on such dwellings decreased. Thirdly, the renovation of large inner cities' parts was finished and they slowly began to rebuild their attractiveness. However, population increase in inner cities is formed mostly by the elderly who decide to move back to the city from the surrounding suburbs, which do not meet their needs any more.

The very intensive out-migration of the young in the 1990s and an already old profile of the Eastern German population caused that the ageing process became very advanced. Today the shares of the young oscillate around 10%, while that of the elderly reach 25%. This ageing process is proceeding and it is particularly pronounced in cities located in peripheries, with insufficient amenities. They continue losing inhabitants, mostly young who migrate into larger cities. More and more advanced ageing of the cities' population will negatively influence their economic development. A large number of the elderly puts namely pressure on social security systems, health services, and pensions, while a smaller and smaller working-age group contributes fewer taxes. Therefore, after the year 2000, suburbanization and deindustrialization ceased to be the most important reasons for the city crisis. It is now the very advanced process of ageing, which will negatively influence the demographic, spatial and economic development of the Eastern German cities in the future.

5. Polish cities' development after 1989

The purpose of this Chapter is to check whether the processes that affected Eastern German cities after 1989, and largely contributed to their crisis, took place in Poland. It is going to be focused on population decrease, decentralization and deindustrialization, which were very intense in Eastern Germany in the 1990s. Furthermore, large attention will be paid to the demographic changes and their influence on the spatial and economic development of the analyzed cities: the Metropolis Silesia and Łódź.

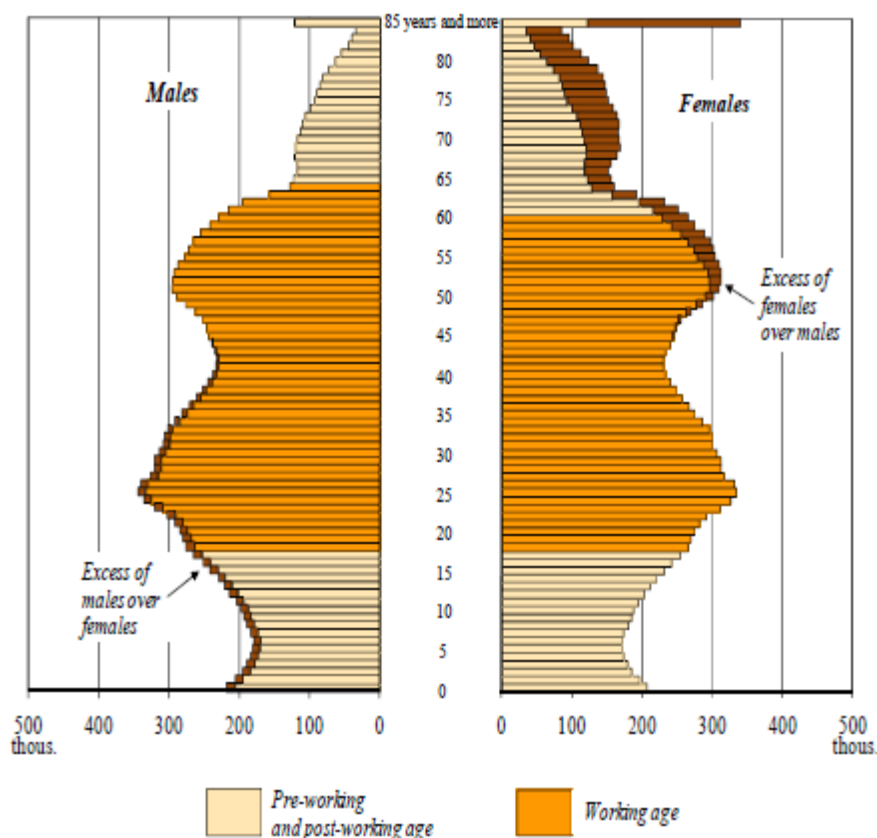
5.1. Demographic development

Throughout the socialism Polish population grew rapidly. The population growth in that period was similarly high to that observed in Germany between 1871-1910 (see Table 2 and Table 4). Polish birth rate values accounted to the highest in Europe. This trend changed in the late 1980s when the number of newborns started to decrease. However, unlike Eastern Germany where the lowest value of the total fertility rate was noted in 1993: 0.76 (IWH 2006, 12), in Poland the lowest total fertility rate was recorded first in 2003: 1.22 (the number of newborns: 351 072). Hence, not only the lowest value of the total fertility rate was recorded ten years later in Poland but it was also higher than that of Eastern Germany.

At the end of the 1990s, a population decrease due to a low birth rate occurred in Poland. In the period 1997-2007, Polish population was decreasing (-179 thousand persons). However, after 2003 the birth rate started to increase, and in 2009, 417 589 children were born. Polish population has been growing again since 2008 due to this growing natural increase combined with positive tendencies in international migration for permanent residence (GUS 2010, 118).

In 2001, a very negative demographic prognosis for Poland and Polish cities was developed. Coupled with other publications by international agencies, which had also very sinister overtone (Chawla, Betcherman and Banerji 2007), this prognosis triggered a discussion on possible dangers caused by decreasing and ageing population. Social attention was drawn to the problem and some small (particularly in comparison to the German ones) incentives to support parenthood were introduced. However, the most important cause for the currently observed growing birth rate in Poland is the fact that the demographic peak from the turn of the 1980s is now reaching maturity creating another demographic peak, as Picture 18 presents:

The Population Age Pyramid (as of June 30, 2010)



Picture 18. Polish population age pyramid, June 30th 2010, source: (GUS 2010, 120).

5.1.1. Depopulation and ageing in the Metropolis Silesia and Łódź

Until the end of the 1980s, the urban population in Poland was growing. After the collapse of the socialism the urban population share stabilized on the level 62% and remained basically unaltered since then.

As mentioned in Part 3.2.4 the Metropolis Silesia and Łódź began to lose inhabitants at the turn of the 1990s, after an intense growth during the socialist and pre-1945 period. Table 24 presents the population losses in percent in the three five year's periods in Łódź and the Metropolis Silesia.

The population losses in the 1990s were in these Polish cities lower than in the Eastern German ones, where on average it amounted to -5.2% (Table 16). In the second period the population losses in both city groups were comparable. In the last period the Metropolis Silesia cities noted decreasing rates of population losses. This tendency is convergent with the

demographic development of the largest Polish cities: Krakow, Wrocław and Gdańsk, which since 2007/2008 have been noting population growth. However, Łódź' depopulation remained unchanged in the last period.

	Population change in % in periods:		
	1995-1999	2000-2004	2005-2009
Łódź	-2,2	-3,1	-3,3
Bytom		-3,2	-2,8
Piekary Śląskie	-7,8	-2,2	-1,9
Gliwice	-3,2	-2,3	-1,6
Zabrze	-1,5	-2,3	-1,9
Chorzów	-4,6	-2,9	-1,5
Katowice	-5,2	-3,2	-2,7
Mysłowice	-4,4	-0,9	-0,4
Ruda Śląska	-6,6	-3,2	-2,2
Siemianowice Śląskie	-3,7	-2,2	-2,7
Świętochłowice	-4,1	-2,1	-2,2
Dąbrowa Górnicza	2,3	-1,6	-1,9
Jaworzno	-1,0	-0,7	-1,2
Sosnowiec	-4,8	-2,7	-3,0
Tychy	1,2	-1,4	-1,3
the Metropolis Silesia	-3,3	-2,2	-2,0

Table 24. Population change in % in the analyzed Polish cities between 1995-1999, 2000-2004 and 2005-2009. Own presentation based on data from: www.stat.gov.pl

In order to answer the research question whether Polish depopulating cities can be named “shrinking” it is indispensable to analyze their demographic structures and compare them with those of Eastern German major cities, which were presented in Part 4.1.2.

Table 25, similarly as Table 18 for the Eastern German cities, presents population number in 2007, population change in period 1995-2007 and the share of age groups 0-14, 15-64 and 65+ in 2007 in cities of the Metropolis Silesia and Łódź. It is important to note that in Poland post-productive age is differently defined than in Germany. In Poland it is 65 years for men but only 60 for women, while in Germany it is 65 years for both genders. This five years difference for women age makes the share of post-productive population in Poland comparable with the one in Germany. It gives a false impression that the ageing process in Poland is similarly advanced as in Germany. In order to describe the situation in both group of cities in a reliable way I decided to use the same determinants. Therefore, the table below presents the share of people aged 65 and over, as in the case of the Eastern German cities:

	Population change (%) 1995 - 2007	Population number 2007	Age groups in % in 2007		
			0 - 14	15 - 64	65+
Bytom (since 1998) ²⁷	-9,8	185 841	13,6	71,6	14,8
Piekary Śląskie	-11,7	59 223	13,5	71,7	14,8
Gliwice	-7,0	194 426	12,6	72,9	14,4
Zabrze	-5,6	189 426	13,6	72,5	14,0
Chorzów	-9,2	113 660	14,1	69,8	16,0
Katowice	-10,3	310 751	12,3	71,6	16,1
Mysłowice	-5,2	75 096	14,1	73,6	12,3
Ruda Śląska	-12,3	145 068	14,7	72,3	13,0
Siemianowice Śląskie	-8,0	71 868	13,2	72,5	14,3
Świętochłowice	-8,3	54 745	14,3	72,2	13,5
Dąbrowa Górnicza	0,8	129 143	12,1	75,2	12,7
Jaworzno	-2,2	95 937	13,6	72,6	13,8
Sosnowiec	-9,8	222 478	11,6	74,6	13,9
Tychy	-2,3	130 427	13,1	75,2	11,7
Łódź	-8,5	753 192	11,2	71,8	16,9
On average	-7,3		13,2	72,7	14,1

Table 25. Populations change 1995-2007 and age structure in 2007 of reported as “shrinking” cities in Poland: Metropolis Silesia cities and Łódź. Own presentation based on data from: www.stat.gov.pl.

A substantial difference, that amounts 8.8%, can be observed in the average share of people aged 65+ between the Eastern German cities presented in Table 18 (22.9%) and the Polish ones (14.1%). Indeed, the share of people in this age group in the reported as “shrinking” Polish cities is much lower. In Łódź, where this share is the highest, it accounts to only 16.9%. This value is much lower than the share that can be found in the demographically youngest cities in Eastern Germany like Greifswald (18.7%) and Potsdam (19.2%).

The share of young people also differs considerably. In the analyzed Eastern German cities it amounts on average to only 9.9%, whereas in the Polish ones it is 13.2%. It is worth noting, that the difference between the share of the elderly and that of the young is in the case of Eastern German cities very high: 13%, while in the case of Polish cities it is almost non-existent: 0.9%. Therefore, Polish depopulating cities have still fairly balanced composition of young people and the elderly. In fact, Mysłowice, Ruda Śląska, Świętochłowice and Tychy have the shares of those aged 0-14 higher than shares of those aged 65 and over. Such a demographic profile cannot be found in any Eastern German town or city. The share of the young in Postdam (11.8%) is only slightly higher than the lowest share of people in this age group among Polish cities that can be found in Łódź (11.2%). Among Polish cities,

²⁷ In 1998 a part of Bytom called Radzionków separated. Therefore Bytom lost 18 156 inhabitants „overnight“. This depopulation was due to administrative decision and it is not presented in the table.

paradoxically, the highest share of the young is found in Ruda Śląska (14.7%), which is the most depopulating city in the presented group (population loss -12.3% in period 1995-2007).

5.2. Spatial: qualitative improvements

In the 1990s the construction activity in the Polish cities was low. The state was not any more building large residential estates and private investments were rare. An increase in the construction of the housing units occurred in year 2004, when the accession of Poland into the European Union took place. Between 2004-2008 the housing development as well as the construction of buildings for other functions grew considerably. Thus, the phase of the most intense spatial development in the Polish cities is different than that of the Eastern German cities, where it took place in the 1990s. In the following part these different dynamics will be proved as well as the comparability of the intensity in urban decentralization in both post-socialist countries will be checked.

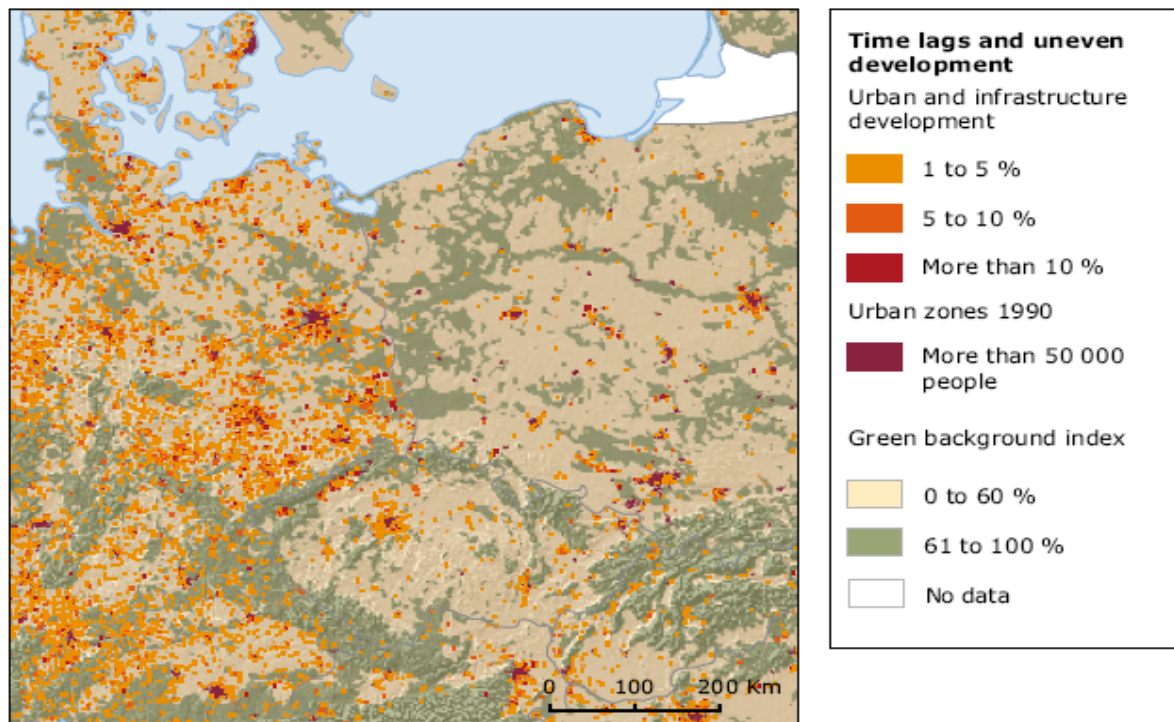
Attention will be also paid to the issue of population density and the size of administrative areas. Similarly as in Part 4.2.3 the processes in the inner and outer cities in Poland will be presented. Finally, the relation of the demographic and spatial development in the Polish cities is going to be discussed.

5.2.1. Suburbanization: getting stronger in the 2000s

The construction of one-family houses in the socialism was largely hampered in Poland. However, it was not a result of strictly obeyed regulations. In fact, non-permitted buildings were quite frequent. They included housing made by individual investors, particularly in rural areas, but also churches and even state investments (Basista 2001). The most important obstacle in creating own housings was made by the lack of building materials. After 1989, this situation started to change, as building materials were more and more obtainable. Despite this fact, throughout the 1990s, the residential market development in Poland was in a deep crisis. In order to stimulate it some tax cuts for building a house or for buying a plot of land were introduced at the beginning of the 1990s (they were lifted in 2002).

These measures had a much lower scope than those found in the 1990s and 2000s in Germany, where one-family housing was not only supported by tax cuts but it also was very

generously subsidized in form of so called “Eigenheimzulage” or additional payments to traveling costs from remote areas (Pendlerpauschale). Furthermore, excessive suburbanization in Poland was, and still is, hampered by the lack of local development plans in areas around cities. Their lack leads to complication and slowing down the investment process. Another factor that discourages possible investors from building a house in the city outskirts is the deficiency of infrastructure in these areas. Particularly, the insufficient number of roads towards the Polish cities, which results in extreme overloading of the existing ones, drives many to resign from living in the suburbs. Besides roads and public transportation, these areas lack in some other basic technical infrastructures such as sewage or water systems. Social infrastructures like kindergartens and schools are also underrepresented.

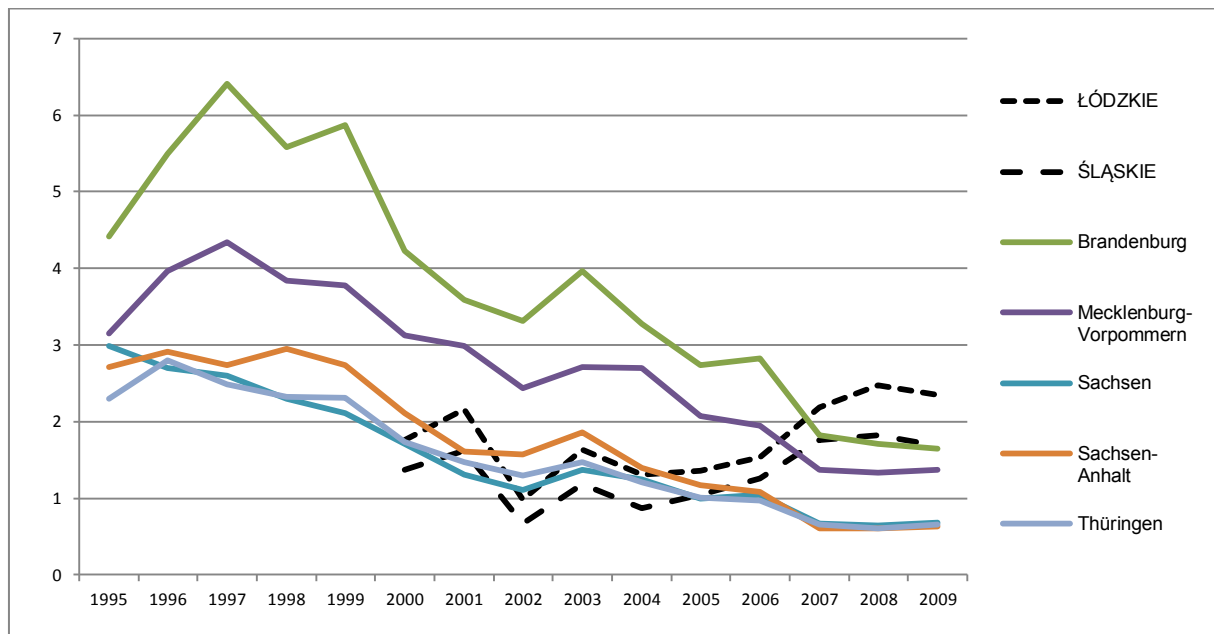


Picture 19. Urban sprawl in Germany, Poland and Czech Republic (1990 – 2000), source: (Uhel 2006, 11)

This different policy and preconditions related to one-family housing development in Eastern Germany and Poland are well reflected in space. The suburbanization process in Poland was much weaker than Eastern German one in the 1990s. Picture 19 presents suburbanization in the period 1990-2000 in Germany, Poland and Czech Republic. The high intensity of the process in Germany is sharply contrasting with the modest sprawl in the two other countries.

In the 2000s, the suburbanization process in Eastern Germany decreased considerably, while it started to slowly increase in Poland. Therefore, this sharp contrast in the dynamics of the

process, which was observed in the 1990s, reduced. Picture 20 presents the number of buildings permits for houses with one or two flats per 1000 inhabitants in Polish Voievodships: Łódzkie and Śląskie (where Łódź and Metropolis Silesia are located) in years 2000-2009 and Eastern German states in years 1995-2009.



Picture 20. The number of building permits for houses with one or two flats per 1000 inhabitants in Eastern German States apart from Berlin in years 1995-2009, source: www.regionalstatistik.de, and the number of building permits for one-family houses²⁸ in Voievodship Łódzkie and Śląskie (where Metropolis Silesia and Łódź are located) per 1000 inhabitants in years 2000-2009, source: www.stat.gov.pl.

The analysis of building permits number per 1000 inhabitants for houses with one or two flats supports the finding presented in Part 4.1.1: the suburbanization was most intense in the 1990s in Eastern German States (apart from Berlin). In case of the Polish Voievodships: Łódzkie and Śląskie, where the analyzed cities are located, the increase of building permits number per 1000 inhabitants was noted only recently. The highest number of building permits in Łódzkie and Śląskie occurred in 2008, while in Eastern German States the same peak occurred between 1995-1998. Nowadays, this number is decreasing. It is mainly due to the world economic crisis, which contributed to slowing down construction rates in Poland and hindered obtaining a credit for investment. It is important to note that none of the peak points in Łódzkie and Śląskie were as high as those observed in the Eastern Germany in the 1990s. Thus, the intensity of suburbanization process in Poland was not only lower throughout the whole period after 1989, but its peak point was also more recent than in Eastern Germany.

²⁸ One-family house is defined in the Polish law as a building with one or two flats.

5.2.2. Population density in Metropolis Silesia cities and Łódź

At the beginning of the 1990s, Poland avoided a radical fragmentation of the administrative division as opposed to Eastern Germany or other countries in Central and Eastern Europe. Nowadays, in Poland there are only 2479 communes that count an average of 16 000 inhabitants and an area of 125 km² (Swianiewicz 2004, 195). The Polish unit is smaller than the basic territorial unit in the UK but much larger than the basic territorial unit in Germany (Gemeinde). Therefore, the process of unifying neighboring communes, which was taking place in Eastern Germany, was not needed in Poland.

Low population density and a high population decrease are important characteristics of “shrinking cities” in Eastern Germany, as discussed in Part 4.2. Therefore, density values in reported as „shrinking” cities in Poland are worth of analysis. Table 26 shows the population number in 2007, the population and density change between 1995-2007 and the city area of the analyzed Polish cities. Unlike cities in Eastern Germany, city areas extensions did not occur in Poland after 1989²⁹. In fact, in some cases, a reverse process was taking place: cities were losing some of their parts, like Bytom, from which a part called Radzionków separated in 1998. In this way Bytom lost almost 20 000 inhabitants. This is an opposite development to that described by e.g. Leipzig.

The presented Polish cities have high population densities in comparison to the Eastern German ones presented in Table 20. In 7 out of the 15 Polish cities the density is higher than 2000 inhabitants per km². As a matter of fact, Świetochłowice has the highest population density in the country: 4211 persons/km². In only two cases, Dąbrowa Górnicza and Jaworzno, the density is far below 1000, indicating their vast areas. The former has a stable population, whereas the latter notes the lowest population decrease in the analyzed group of cities (-2.2 %). These trends confirm the conclusion drawn while analyzing Eastern German cities (in Part 4.2.2): a city with an extended area comprises a part of its suburban zone. Consequently, the statistics do not record the population change caused by the suburbanization.

On the contrary, cities with a high density notice higher population losses, because they consist only of a core city. The suburbanization jumps over the city borders and thus is recorded by the statistics. This is well illustrated by Łódź which lost 8.5% of inhabitants in

²⁹ The only exception is Rzeszów, a city in South Eastern Poland. Its area enlargement took place in 2006, 2007 and 2010.

years 1995-2007. Density lowered to 2571 persons per km². Despite this decrease Łódź density is still much higher than that of the Eastern German cities. It is higher by over a 1000 persons/km² than the population density of Dresden, which accounts to merely 1541 persons/km².

	Population number in 2007	Population change 1995 - 2007	City area in km ²	Density (number of inhabitants/ km ²)		Change in density 1995 – 2007 in %
				1995	2007	
Bytom (since 1998)	185 841	-9,8	69	2944a	2693	-8,5a
Piekary Śląskie	59 223	-11,7	40	1676	1481	-11,7
Gliwice	194 426	-7,0	134	1560	1451	-7,0
Zabrze	189 426	-5,6	80	2509	2368	-5,6
Chorzów	113 660	-9,2	33	3681	3444	-6,4
Katowice	310 751	-10,3	165	2100	1883	-10,3
Mysłowice	75 096	-5,2	66	1201	1138	-5,2
Ruda Śląska	145 068	-12,3	78	2147	1860	-13,4
Siemianowice Śląskie	71 868	-8,0	25	3124	2875	-8,0
Świętochłowice	54 745	-8,3	13	4590	4211	-8,3
Dąbrowa Górnicza	129 143	0,8	189	681	683	0,3
Jaworzno	95 937	-2,2	153	645	627	-2,8
Sosnowiec	222 478	-9,8	91	2710	2445	-9,8
Tychy	130 427	-2,3	82	1629	1591	-2,3
Łódź	753 192	-8,5	293	2791	2571	-7,9

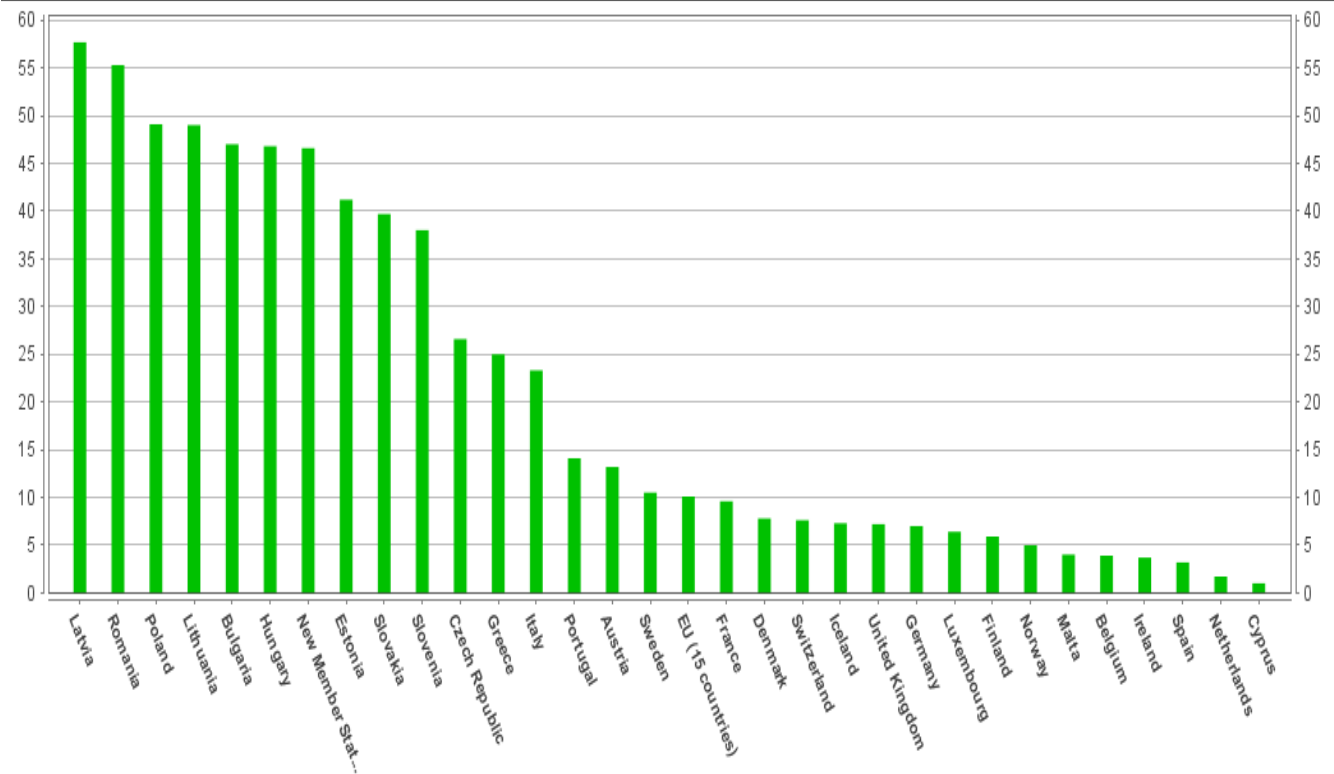
Table 26. Population, city's area and density between 1995 – 2007 in Polish cities defined as urban districts (miasta na prawach powiatu), called “shrinking”. Own presentation based on data from www.stat.gov.pl

The high population density of Polish cities – when compared to Eastern German one – indicates that they rarely include suburban zones. The depopulation of Polish cities reported by the statistics relates to their cores. It is not mitigated by population increase in their suburban zones because they remain outside the city borders. Thus, although the suburbanization in Poland was not as intense as in Eastern Germany it should be treated as an important cause for the cities' populations decrease.

5.2.3. Inner and outer city regeneration

Inner and outer cities in Poland used to have rapidly growing populations in the socialism. This situation began to change after 1989, when the populations of some large Polish cities ceased to grow or in some cases started to decrease. However, as opposed to the Eastern German prefabricated estates and inner cities, Polish ones have not been witnessing negative spatial changes resulting from the population decrease. One of the most striking differences is

that the phenomenon of vacant flats and buildings does not exist in the Polish cities, even those depopulating. Poland still has a great deficit of dwellings, estimated for about 1.4 -1.5 million units (Rada Ministrów 2010, 3). Even depopulating cities have no vacancies in residential buildings of good technical condition. Overcrowded flats are currently being inhabited by fewer people, although the average number of people living in one flat in Poland still amounts to the highest in Europe.



Picture 21. The percentage of the total population living in an overcrowded household in 2009. A person is considered as living in an overcrowded household if the household does not have at its disposal a minimum of rooms equal to: - one room for the household; - one room by couple in the household; - one room for each single person aged 18 and more; - one room by pair of single people of the same sex between 12 and 17 years of age; - one room for each single person between 12 and 17 years of age and not included in the previous category; - one room by pair of children under 12 years of age, source: Eurostat

Picture 21 presents the shares of population living in overcrowded households in the European countries. There is a clear division between the Central European countries, where these shares are very high and Western European ones, where these shares amount on average to less than 10%. These data prove that the construction of housing in Central European countries was insufficient in the past and support the “under-urbanization” theory.

As a result of a great deficiency of housing, which is articulated by high level of overcrowded households, in Polish prefabricated estates no demolitions were carried out, nor are they

planned for the future. Instead of perforating Polish prefabricated estates and inner cities have been consolidating and gaining density thanks to new housing investments. This process has been taking place also in cities of the Metropolis Silesia and Łódź, where the inhabitants' number has been decreasing. The following pictures present some of the latest housing investments in the Metropolis Silesia:



Picture 22. Katowice, Tysiąclecie estate (built in the 1960s and 1970s): new multi store apartment buildings (from 2010) with 160 flats (39m²-140m²). Price started at 4500 PLN for 1m² in 2010. Photo: A.Cieśla, 2011



Picture 23. Zabrze, Franciszkańska Street: new multi store apartment buildings with 50 flats, photo: A.Cieśla, 2011



Picture 24. Gliwice, Kozielska Street: new multi store apartment building with 51 flats (27m²-75m²), investment finished in April 2011. Price: 4940PLN-5463PLN for 1m², photo: A.Cieřla, 2011

The process of densification of prefabricated estates and inner cities is more intense in cities with particularly strongly expanding economies like Warsaw or Krakow. However, as presented above, it takes place also in the Polish cities that are depopulating. These new housing investments are carried out by private actors, while the role of the municipalities in creating new housing in Poland remains low. They exert a positive influence on the areas where they are being located. Mostly, these new flats are bought by young people or young families. Therefore, prefabricated estates are not ageing so quickly. New dwellers profit from the existing infrastructure like schools and kindergartens, which in this way are not being underused. Moreover, the new housing investments have a positive influence on the spatial arrangements of prefabricated estates. Vast, empty areas between prefabricated blocks of flats are filled in with new buildings, which often successfully complete the urban form.

Flats in prefabricated blocks are also very attractive for buyers because the price per 1m² is by several percentage points lower than that of a new building. In this way, even in prefabricated housing, the social structure is being rejuvenated as most of the buyers are young.

The population movements in the Polish depopulating cities were less intense than in the Eastern German ones. This fact exerted a great influence on the development of commercial

functions. As opposed to the Eastern German cities, where large shopping centers, particularly in the 1990s, were created in suburban zones following the people's move, in Polish cities such centers were constructed between large prefabricated estates or in inner cities, thus within the city. This location resulted from the greatest customer concentration. However, not only large shopping centers were completing the urban form and function, but also smaller shops and restaurants flourished in the prefabricated estates and inner cities. In this way the trade, which is a vital part of a city life, did not leave the inner and outer parts of the Polish cities.

It is important to note that the inner cities in Poland never lost so much of their prestige as did those in Eastern Germany during the socialism. Due to the lack of many functions in outer cities they remained focal points of urban life throughout that period. After 1989, when a general qualitative improvement of Polish cities started, inner cities were locations for numerous investments particularly offices, hotels, banking, but also commerce, entertainment and residential ones. The process of enhancing the built environment in Polish cities intensified after the accession of Poland into the European Union in 2004, when it became possible for them to obtain additional funds for the city regeneration. Both inner and outer city areas were witnessing positive changes in the period after 1989. These areas were slowly being completed with the so far missing functions and they were becoming more and more attractive living places.

5.2.4. Relation of spatial and demographic development

Although the populations of Łódź and the Metropolis Silesia grew intensively in the pre-1945 period, their spatial development was weaker than that of the Eastern German cities at the same time. This is supported by the shares of the pre-1945 housing stock. Nowadays, in Leipzig, despite intense construction in the socialism, 58% of the housing stock is formed by buildings created before 1948 (Krings-Heckemeier, Porsch and Schwedt 2001, 47), while in Łódź this share amounts to only 27%. This supports the finding presented in Chapter 3 that the GDR cities did not have acute housing problems while the deficit of dwellings used to be very high in the Polish cities, including Łódź and the Metropolis Silesia.

During the socialism Polish cities had rapidly increasing populations. The number inhabitants of the Metropolis Silesia grew by almost 1 million and of Łódź by 234 000. This population

growth was not followed by a sufficient housing construction. The socialism economized on everything except for the industry (including military production). Housing investments were of secondary importance for the authorities. As the under-urbanization theory proves, the urban population growth could have been higher if an adequate number of housing had been created. The demand on flats was very high and a flat was very much desired by the people. As opposed to the GDR cities, in the Polish cities all flats were habited, and in fact they used to be much overcrowded.

By the end of the 1980s, the rapid population growth of many Polish cities had ended. The share of the urban population stabilized at the level of 62%. However, the housing shortage still remains very high and it is estimated at the level of 1.4 – 1.5 million units. Deficit for other infrastructural objects, including schools and kindergartens, is also very high. These shortages largely result from the insufficient construction of such objects during the socialism. Even the depopulating cities Łódź and the Metropolis Silesia suffer from these deficits. Their residential real estate market situation might be comparable with that of cities in Western Germany in the 1980s described by Häussermann and Siebel as prospering. The Authors remarked that fewer inhabitants in those cities do not mean a lower demand on flats (Häussermann and Siebel 1987, 158). Nowadays, a growing households' number in Poland is contributing to a constantly high demand on dwellings.

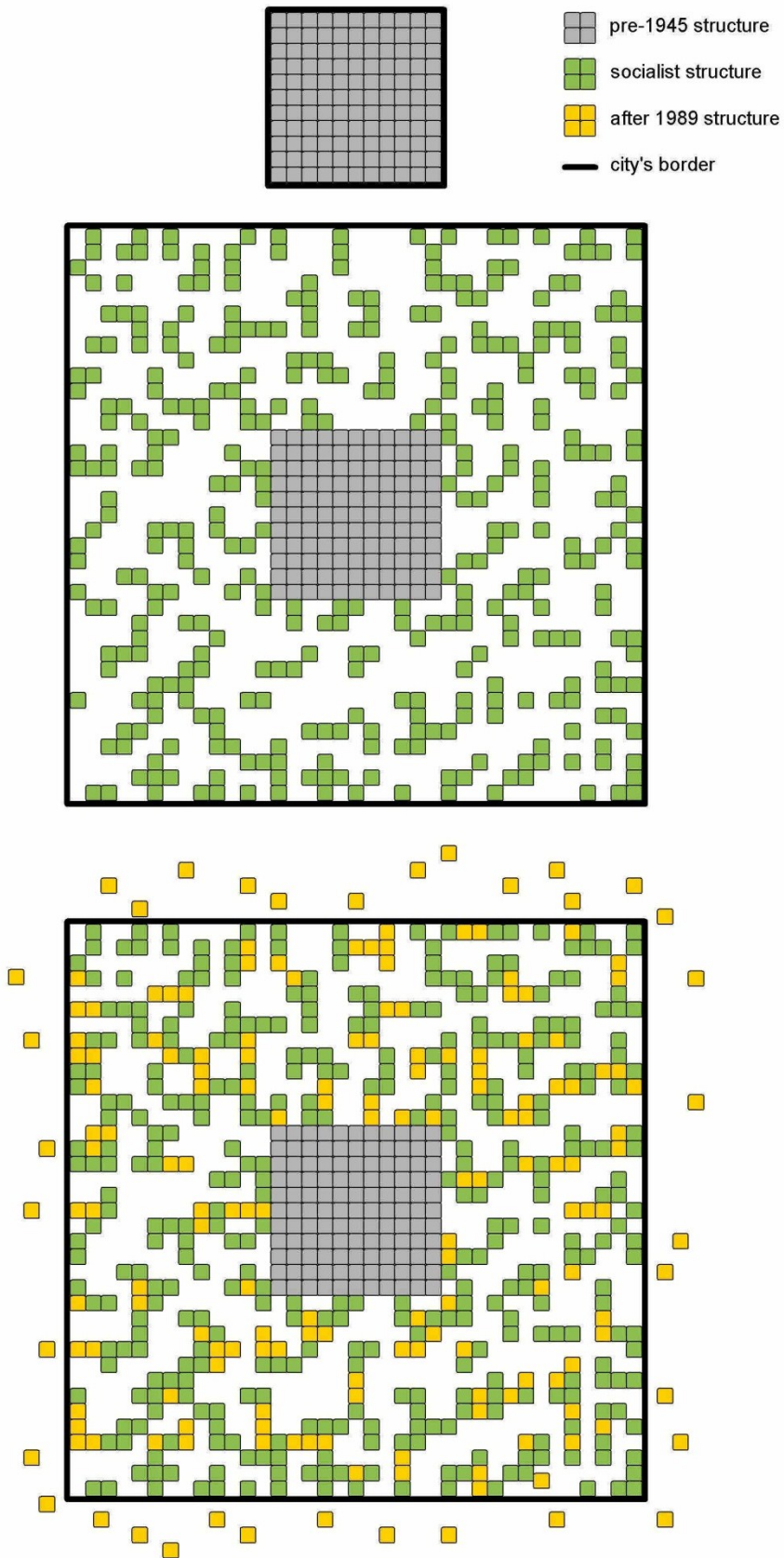
After 1989, population stagnation or decrease in the Polish cities went parallel with a slow qualitative development. The infrastructural shortages deriving from the socialism started to be reduced. The investments concentrated in the cities and they were not contributing to the excessive extension of the city structure. They included removal of infrastructural shortages, especially those relating to housing, but also shopping, services and entertainment. Polish cities become more and more consumer friendly and they are better and better adapted to the post-industrial conditions. As suburbanization in Poland is neither supported by the state nor it is intensifying, the prospects for inner and outer cities' development, even in depopulating cities, are positive.

Up to 1989, the development of the Polish cities was of quantitative character, while, since the 1990s it has changed into qualitative (Parysek 2005). It can be stated that in none of the periods the intense construction activity, "beyond the needs" was present in the Polish cities, including Łódź and the Metropolis Silesia. On the contrary, the existing shortages prove that this construction activity was insufficient. *Hence, the spatial development used to lag behind*

the demographic one in the Polish cities. This is the opposite development to the one that occurred in the Eastern German cities.

A generalized structure of the Polish city is presented on Picture 25 and includes:

- inner city with pre-1945 structure, still compact and being qualitatively improved
- outer city with prefabricated estates built in socialism, gaining density and completed with missing functions like shopping, services and entertainment
- suburban zones located outside the city borders. They are not as large as in case of Eastern German cities and people's move towards suburbia is recorded by the statistics.



Picture 25. Polish city model in three periods: pre-1945 (top), socialist (middle), after 1989 (bottom), own presentation

5.3. Economic changes

This part presents some economic changes that arise from the transformation process. Firstly, a deindustrialization process and the influence of demographic age structure on economic development are described. Afterwards, focus is laid on the ownership structure of the residential real estate market in Poland.

5.3.1. Deindustrialization mitigated by under-urbanization

Deindustrialization started to affect Polish cities for the first time after the collapse of the socialism. This process was different from the one occurring in Western Europe or Eastern Germany after 1990. One of the most important reasons for these differences was the fact that Poland, as well as the countries in Central and Eastern Europe, were under-urbanized in the socialism (Szelenyi 1996) (Part 3.2.2). This meant that in the socialist cities the number of inhabitants was growing at a slower pace than the number of industrial workers, while in the capitalist ones, the numbers of inhabitants and industrial workers was growing proportionally. Consequently, despite strong growth in shares of urban population, socialism produced industrialization with exceptionally small urban and large rural populations. Many workers were commuting large distances from their places of living to the industrial plants, where they worked. This was of great importance for cities, when the system change began, particularly those strongly relying on industrial production like the analyzed cities of the Metropolis Silesia and Łódź.

The collapse of the socialism caused a sudden loss of the eastern market for many products made in Poland. This was particularly well visible in the case of the coal production. In 1989, 415 700 people were employed in the coal mining industry in the area of Upper Silesia. Many of them were farmer-workers (*chłoprobotnicy*), who travelled each day to coal mines from distances ranging 90 km. Until 2003, the number of coal miners was reduced to 135 700 workers and 29 mines were closed down (Tkocz 2006, 38). In this way, during 14 years, 280 000 coal miners lost their jobs. Despite such a great reduction in the jobs' number, unemployment rate in Metropolis Silesia was not massive. The first to be dismissed were those farmer-workers who commuted from outside the Metropolis Silesia to the mines. They formed the majority of the dismissed personal. In this way, unemployment caused by heavy industry restructuring was spread over a greater area and did not concentrate in Metropolis

Silesia excessively (Mitreęa 2006). The same process occurred in Łódź. Indeed, it was the rural population in Poland that bore most of the burdens resulting from the change of the system.

It must be remembered that, apart from the GDR, in other socialist countries, which did not belong to the Soviet Union, rural areas were, in a large part, *not* collectivized. Table 27 presents the ownership structure of agricultural land in the GDR and Poland in 1975. In the GDR only 5.5% of agricultural land was privately owned, while in Poland 79%.

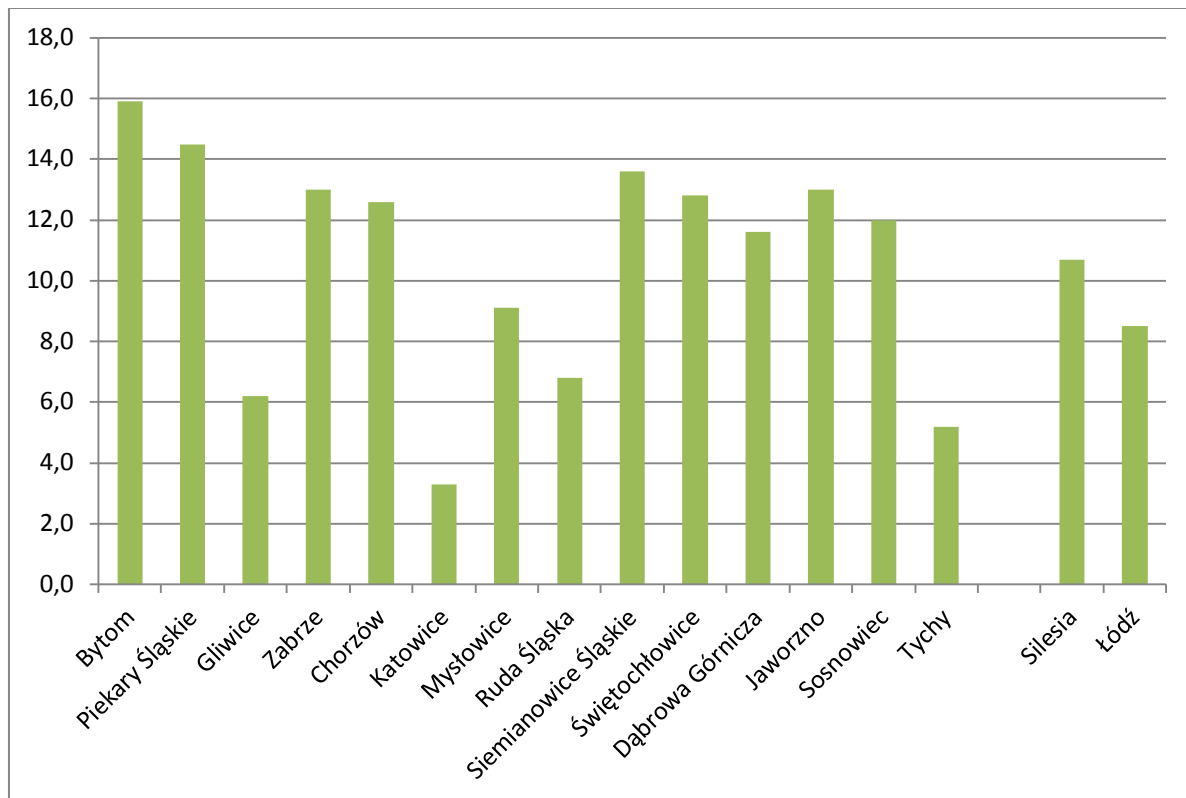
	Total in thousands hectares	Ownership in % of the total agricultural land		
		State owned	agricultural cooperative societies	Privately owned
The GDR	6296	8,20	82,00	5,50
Poland	19209	16,80	1,60	79,00

Table 27. Agricultural land according to ownership forms in 1975, source: (GUS 1977) Co-operative ownership was considered to be a form of state ownership in the socialist system.

This ownership structure was of great importance when the system transformation began. Not only were the job losses in agriculture lower in Poland than in Eastern Germany, but also, agriculture served as a buffer for deindustrialization. Dismissed farmer-workers still owned, usually small, farms and they could concentrate on agricultural production again. This helped them to live through the difficult 1990s.

Such a situation could not have occurred in Eastern Germany. The GDR was not under-urbanized and no industrial workers lived in the countryside. Moreover, agricultural land was collectivized in the socialism. The renewed privatization and reorganization of agriculture further complicated the transformation process in Eastern Germany.

Unlike in Eastern Germany, where the closure of industrial plants was causing great unemployment in a city, in the case of Poland such a relation is much weaker. This is supported by current data (2007) on unemployment rate in Metropolis Silesia cities and Łódź, which can be compared with those of Kreisfreie Städte in Eastern Germany presented on Picture 17 (p.108). Unemployment rates in Eastern German cities are higher than in the analyzed Polish ones. As a matter of fact, Katowice, which has the lowest unemployment rate in the group, counts to the cities with the lowest unemployment in the country (3.3%).



Picture 26. Unemployment rate in 2007 in the Metropolis Silesia cities and Łódź. Source: own presentation based on data from www.stat.gov.pl

It seems that the most difficult period of restructuring, such as the 1990s, is over for Metropolis Silesia (Mitreęa 2006) and Łódź. These two Polish agglomerations are described in current economic and business reports as very attractive for investments. In 2010 NUTS-3 unit, katowicki (where Metropolis Silesia is located) and łódzki ranked first and third place respectively as the most attractive Polish regions for industrial investments. They also ranked third and second position for services (działalność usługowa) (IBnGR 2010). Current statistical data reveal that the industrial production in both agglomerations has been growing since 2005. Low wages, compared to the ones found in Western Europe, contribute to the growing attractiveness of these areas for transnational investors. Therefore, old industries are being replaced by a more modern production and both these urban areas remain the most important production centers of the country, as they used to be in the past. This positive development is going to be strengthened by infrastructural investments that are now being completed. Both urban areas will have the best accessibility in the country. The only highway with the north-south direction in Poland (A1) is passing close to Łódź and the Metropolis Silesia. It is intersecting with A2 in Łódź and with A4 in the Metropolis Silesia. Even the capital city Warsaw does not have so favorable road connection.

5.3.1. Influence of the demographic structure on economic development

Demographic structure of a city population becomes an important aspect when analyzing its economic potential, for people's economic behavior and needs vary at different stages of life. By analyzing the demographic structure and its influence on the economic development in the Eastern German cities case study of Chemnitz was chosen (Part 4.3.2). For Poland, case study of Katowice is presented. Katowice is the demographically oldest city in the Metropolis Silesia. It has also a population number comparable with that of Chemnitz. In period 1995-2010 the city lost 12.7% of its inhabitants. As opposed to Chemnitz, Katowice did not have any extensions of its administrative area, which equals: 165 km². Therefore, its density remains high (approx. 1900 persons/km²) in comparison to that of Chemnitz (approx. 1100 persons/km²).

Year		Katowice		
		0 - 14	15 - 64	65 and more
1995	351 521	19,2	69,6	11,2
1996	350 974	18,6	70,0	11,5
1997	348 974	17,8	70,3	11,8
1998	345 934	17,0	70,9	12,1
1999	333 244	16,2	71,4	12,4
2000	330 625	15,5	71,7	12,8
2001	328 103	14,8	71,9	13,3
2002	325 045	14,3	71,7	13,7
2003	322 285	13,7	72,2	14,1
2004	319 904	13,3	72,2	14,5
2005	317 220	12,9	72,0	15,1
2006	314 500	12,5	71,8	15,7
2007	312 201	12,3	71,6	16,1
2008	309 621	12,1	71,4	16,5
2009	308 548	12,0	71,2	16,8
2010	306 826	12,1	71,0	17,0

Table 28. The age groups (under 15, 15-64, 65 and more) in % in Katowice in years 1995-2010. Source: own presentation based on data from GUS, www.stat.gov.pl

Undoubtedly, the ageing process is proceeding in Katowice. In the period 1995-2009, the number of senior residents increased by 5.6% while that of the young decreased by 7.2%. Nowadays, the difference between the shares of the young and the elderly amounts to 4.9%, while in Chemnitz this difference amounts already to 16.9%.

In 2010, the demographic composition of Katowice was similar to that of Chemnitz in year 1995 (Table 23), thus 16 years earlier. In Katowice, in 2010, the share of the elderly amounted to 17% while in Chemnitz in 1995 it was 17.2%. Although the number of the young

in Chemnitz was in 1995 (13.7%) higher than that of Katowice in 2010 (12.1%) in the latter city this share started to grow again recently. Such a trend might indicate that future demographic development of Katowice will not follow exactly the path of Chemnitz. Furthermore, Katowice is ageing nowadays at a slower pace than Chemnitz in the 1990s. These differences in the demographic structure between both cities will grow in the future as the percentage changes in population groups in Katowice amount max. 0.2%, while in Chemnitz they are more dynamic and amount to 1% yearly.

Despite the process of ageing, old dependency ratio is not massive in Katowice, where 17% of the elderly is supported by 71% of people aged 15-64 years. In Chemnitz 27.1% of the elderly is supported by merely 62.7% of people aged 15-64 years. Polish depopulating cities are still demographically young (Table 25) and this condition can have a very positive impact on their future economic development:

“As the boom generation enters working age, there is the opportunity to unleash an economic growth spurt, provided the right kinds of policies are in place to ensure the extra workers are productively employed.”

(Bloom, Canning and Sevilla 2003, iv)

This youth of population can bring creativity and may lead to the progress in the knowledge economy. It creates a much better position in adapting to the new and changing technologies (Bloom, Canning and Sevilla 2003, 77) than a population with an older profile.

5.3.2. High private ownership of the residential real estates

Nowadays, countries in Central and Eastern Europe have higher shares of flats being individually owned than countries in Western Europe. One of the most prominent examples is Hungary where the home ownership rate is at 93%. Similarly high rates can be found in Bulgaria, Romania and Lithuania. In Poland individually owned flats account for 76% of the housing stock. It is much lower than in the above mentioned countries, but still very high in comparison to the levels found in Western Europe.

This ownership structure of housing is entirely different from that of Eastern Germany, where only 35% of flats are privately owned (this issue was presented in detail in Part 4.3.3). As opposed to Eastern Germany, in Poland, as well as in all other post-socialist countries, flats in

prefabricated buildings were successfully privatized. A common characteristic of the various privatization programs in countries in Central and Eastern Europe were significantly discounted dwelling prices offered to tenants in relation to market prices (Struyk 1996). In Bulgaria the sale of state owned flats to their tenants began already in 1958. Until 1994 over 90% of the set on the market Bulgarian housing stock was sold. In Poland, privatization programs were introduced in the mid-1980s (Struyk 1996, 202 - 203). Together with housing units in rural areas, which were not nationalized, the share of individually, privately owned dwellings in Poland already in 1988 amounted to 48%.

Nowadays, privatization programs no longer apply. Flats are now being bought, but they are very expensive in relation to the people's incomes. In Poland, with an average monthly wage, one can buy merely 0.8m² of a flat, while in Western European countries one can buy even 3m². This low purchasing power versus a high demand leads to the specific consequences that the average surface of newly built flats in Poland is the lowest in Europe. Moreover, high demand on dwellings combined with high prices make cheaper flats in prefabricated buildings on the residential real estate market very attractive. Their feature of being small, which is considered to be a vice in Eastern Germany, in Poland tends to be a virtue as the overall price for such a flat is affordable.

High level of private ownership of flats hinders a more intense mobility of people, as they are bound to their place of living and want to stay in their housing. Moreover, new flats in most rapidly developing Polish cities are very expensive: this poses an obstacle for newcomers (average price for 1m² Warsaw in 2010: 8500PLN, Katowice: 4500PLN). Many prefer to stay in their place of living, where they can buy a cheaper flat, even if the city does not have spectacularly expanding economy.

At the end of the 1980s, Häussermann and Siebel observed advantages of fragmented ownership structure over one big owner (Häussermann and Siebel 1987, 147). It was supposed to help develop the informal economy in a "shrinking city" as well as develop new alternative ways of living ("neue Urbanität"). In Eastern German cities it was not possible as their assets were owned by large owners. It might be assumed that the very fragmented ownership structure in the cities of Central and Eastern Europe may help them overcome difficulties.

5.4. Interim conclusions: growing differences with Eastern Germany

The 1990s in Poland were characterized by very painful transformation processes that were not mitigated by money or know-how transfer from the West. However, contrary to the development of Eastern German cities, the population decrease, suburbanization and deindustrialization were not so extreme and quick.

The Metropolis Silesia and Łódź used to have intensively growing populations' numbers during the socialism and in the pre-1945 period. In the 1980s, their population increments started to decrease and, at turn of the 1990s, a decrease in the population was noted for the first time in their existence. The population losses in Łódź and the Metropolis Silesia were on average lower than in the Eastern German cities in the period 1995-2007.

Throughout all the 1990s, the construction activity was low in Poland. It increased substantially after the year 2000 and particularly after 2004, when Poland joined the EU. The peak point of the suburbanization process was reached in Łódzkie and Śląskie Voiveodships in 2008, but it was lower than in the Eastern German states in the 1990s. In the last years, the economic crisis slowed down the construction activity. Despite the fact that the suburbanization in Poland was never as intense as in Eastern Germany it should be treated as an important reason for the cities' depopulation. The analyzed Polish cities did not undergo any extensions of their administrative areas. They remain compact and do not include suburban zones as the Eastern German cities do. This observation is supported by the data on population densities, which remain much higher in Polish cities than in Eastern German ones. The suburbanization takes place outside the administrative borders of the Polish cities and the population loss caused by it is recorded by the statistics.

The high population densities of the Polish cities imply that the social interaction and exchange is possible. Indeed, Polish inner and outer cities are still lively and attended places. Furthermore, they indicate that the cities' areas are not spread and perforated. The inner and outer parts of the Polish cities undergo fairly different spatial processes than those found in Eastern Germany. These areas are gaining density because they are being completed with missing buildings and functions. These deficits derive from the socialism, when a very intense population increase in cities was not followed by a proportional increase in the built up structure, housing in particular. Nowadays, the shortage of dwellings is reported to be on the level of 1.4-1.5 million units. Hence, Poland shows a situation contradictory to that found in Eastern Germany, where at the date a surplus of approx. 800 000 flats exists.

Despite the population decrease in Łódź and the Metropolis Silesia, the need for the basic products like housing is still high in these cities. Apart from the quantitative development they are also undergoing qualitative development, as they are enriched with objects suitable for the post-industrial period such as museums, cultural centers or shopping galleries, often located in formerly industrial buildings.

The deindustrialization process occurred in these cities – for the first time in their existence – at the turn of the 1990s. Although the jobs reduction was very high, the unemployment rate was not massive in both cities. This was due to the under-urbanization: the first to be dismissed were farmer-workers, who commuted to the mines or factories from the distances ranging to even 90 km. Hence, the unemployment rate was spread over a greater area and the rural population bore a lot of burdens resulting from the deindustrialization in Poland. Nowadays, low wages make Łódź and the Metropolis Silesia attractive location for investments, mostly in industrial sector and the production has been increasing again in these regions for several years. The levels of unemployment rates in both urban areas are lower than in the analyzed Eastern German cities.

A very important issue that differentiates Polish cities from Eastern German ones is the level of private housing ownership. In Poland this share is 76% while in Eastern Germany it amounts to 35%. It might be assumed that selective out-migration of the young and better qualified from depopulating Polish cities is mitigated by high private home ownership and the fact that the flats in such cities are substantially cheaper than in cities with particularly strongly expanding economies.

The abrupt population decrease, very dynamic extensive development and deindustrialization observed in the Eastern German cities were of a much lower intensity in the Polish cities. What further differentiates Eastern German and Polish cities is the demographic structure. As opposed to Eastern German cities, where ageing process is very advanced the populations of Łódź and Metropolis Silesia are young. The number of the elderly in these cities is comparable with the number of the young and the old-age dependency ratio is low. Their demographic structure may be described as favorable for the economic development and it may have a positive impact on the future demographic and spatial development, as well.

6. “Shrinking city” – an Eastern German phenomenon or a Central and Eastern European one?

The purpose of this Chapter is to give the answer for the research question whether depopulating cities in Poland can be named as “shrinking”. In order to answer this question it is necessary to clarify the contemporary meaning of the term “shrinking city”. Having it defined will provide grounds to state whether its usage is proper for the analyzed depopulating cities in Poland. At first, the so far dominating interpretations of the “shrinking city” term will be critically discussed. The conclusions drawn from this discussion will help in constructing the term “shrinking city” and finally answering the research question.

6.1. Current interpretations of the term – a critical discussion

This part of the research focuses on the current interpretations of the term “shrinking city”. As it was presented in Part 2.4 this term is being ascribed to cities with a decreasing population. The urban development in Eastern Germany is treated as typical and exemplary particularly for Central and Eastern Europe. Hence, a “shrinking city” becomes a synonym for a socialist and a post-socialist city. These interpretations of the term substantially widen the pool of cities to which it can be applied. Starting from the information included in the previous Chapters these three, dominating interpretations will be critically discussed.

6.1.1. “Shrinking city” and population decrease

The term “shrinking city” has been automatically applied to all cities with a decreasing population. As there are many cities in the world, whose population decreases, the phenomenon of “shrinking cities” began to be treated as a global one. On the basis of the gathered information I came to the conclusion that a population decrease may indicate that a city is “shrinking” when three basic characteristics are found:

Population decrease lasts for a long time and it is very intense

Population decrease in the German cities is a long-lasting process. In many cases it started already in the in-between war period, similarly as in other cities of highly developed countries, like Manchester in the UK.

This long-lasting process of population decrease resulted in very high population losses which are recorded by the Eastern German cities. In the last 80 years Leipzig lost almost 1/3 of its population (1930: 718 200, 2010: 522 883). Plauen has been depopulating for a 100 years. Nowadays, it is inhabited by only half of the population from 1912 (128 014, 2010: 66 098). These values are not exceptional.

Long-lasting population decrease in cities is characteristic for cities in highly developed countries, which started to enter the post-industrial phase already in the interwar period. In the developing countries, such as Poland, cities started to depopulate after the collapse of the socialism, hence approx. 70 years later than those in Western Europe or in the US. Similarly, as the industrialization took a different course of action in both European parts, the post-industrial phase are not identical as well. Moreover, the current stage of depopulation, which is observed in the Eastern German or other cities in highly developed countries, should not be confused with the stage of depopulation of cities in Central and Eastern Poland, which has been recorded for only 20 years. Not only is the overall population decrease in the Polish cities lower, but also their population is younger.

The recently observed population increase in some of the analyzed Eastern German cities took place largely due to vast extensions of their administrative areas that were carried out in the 1990s. Nowadays these areas consist not only of core cities but also include, at least, a large part of their suburban zones. The core cities have a decreasing population while the suburban zones have a growing one. The population change in an Eastern German city refers to both of them. Therefore, the values of depopulation of core cities remain invisible for the German statistics as they are mitigated by the increase of population in the suburban zones. This is not the case of the analyzed Polish cities, whose administrative areas remain unchanged and they consist of only a core city. This difference in the size of the administrative area is mirrored by the values of population densities – they are very low in the Eastern German cities and much higher in the Polish ones (Table 20 and Table 26). As it was observed in the analysis of Polish cities the density is correlated with the population pace – the lower the density the lower the population decrease in those cities.

The size of the administrative area highly influences the population change presented by the statistics. By analyzing the “shrinking” phenomenon in different countries the same determinants for city limits should be applied to all of them. The direct comparison of data on cities in Eastern Germany and on cities where administrative areas are not extended as in case

of those in Poland may bring misleading conclusions. In this way, the gravity of depopulation in the Eastern German cities is underestimated while its role in the Polish cities is exaggerated.

Spatial development was exceeding the demographic one

It was not the demographic changes that caused reopening of the discourse on “shrinking cities” in Germany. The reason for which the discourse reappeared after 2000 was not the high population decrease in the Eastern German cities, but the publication of a report on the residential real estate market in Eastern Germany, where it was stated that over 1 million flats in this area stays unoccupied (Pfeiffer, Simons and Porsch 2000). This means that the spatial changes, which took place in those cities, were so problematic that they could not have been concealed anymore.

In the period 1945-2000 the construction activity in the area of Eastern Germany was very dynamic as if the population was rapidly growing. However, the population was not growing at all, in fact it was decreasing. Hoscislowski concluded for the GDR housing development that too many flats were built (Hoscislowski 2004). Similarly, the size of the construction activity in the period 1990-2000 Pfeifer described as a “wasted overproduction” (Pfeiffer 2005). As a consequence, a great volume of housing and other real-estates, not meeting actual demand, appeared in the Eastern German cities, which as a result, are nowadays characterized by a high number of abandoned flats and buildings. They are being gradually demolished, what leads to a perforation of the city structure. Hence, it can be stated that the spatial development of the Eastern German cities used to exceed the demographic one (Part 4.2.4).

In the Polish cities contrary processes have been taking place. The spatial development of cities always used to lag behind the demographic one. Although in the socialism the housing construction was very high it was not sufficient to fulfill the needs of rapidly growing urban populations. After 1989 in many cities population ceased to grow however, the construction activity was very limited. Despite an increase of construction activity in recent years the problem with housing and infrastructural deficits dating back to socialist era cannot be resolved in the near future even in the most optimistic scenarios. The perforated structure observed in the Eastern German cities is not appearing in the Polish depopulating cities, whose spatial structure is compact and it is being intensified. As opposed to the Eastern German cities, in the Polish ones the spatial development used to lag behind the demographic one (Part 5.2.4).

Advanced ageing of the population negatively influences the economy

The population decrease in a city is assumed to reflect its difficult economic situation (Mykhenko and Turok January 2007, 4-5). Nonetheless, various studies prove that an economic growth may exist along with a decreasing population (Beauregard 1993), (Glaeser and Gottlieb 2006), or may be even fuelled by it (Kaufmann 2005), (Bloom, Canning and Sevilla 2003).

Kaufmann outlines the economic consequences of a decreasing population in Germany. Basing on a publication by Felderer and Sauga (Felderer and Sauga 1988) he states that in a short time perspective i.e. two generations, the economic advantages of births decrease dominate, whereas in a long-term perspective, its negative consequences start to prevail (Kaufmann 2005, 68). In other words, at the beginning a low birth rate boosts the economic development. He proves this rule for Germany and concludes:

“As a consequence of an abrupt decrease in births between 1965-1975 the expenditures on children upbringing fell down. At the same time the part of people in the working age increased at first, while old age dependency ratio did not rise. This advantageous phase comes nowadays for Germany to an end.”³⁰

(Kaufmann 2005, 212), translated by A.C.

Kaufmann warns that the German economy will shortly have to face the difficulties arising from an old population profile. It is estimated that in the next three decades the number of the elderly in the German population will decrease more slowly than that of productive age (Kaufmann 2005, 16). This rapidly growing old-age dependency may negatively influence the economic situation of many Eastern German cities in the future.

The very advanced ageing process of the populations in the Eastern German cities is clearly visible when their demographic data are compared with those of the Polish cities. In 2009, Chemnitz had only 10.2% of young people and 27.1% of the elderly. At the same time in Katowice, which is the demographically oldest city in the Metropolis Silesia, the young amounted to 12.1% and the elderly only 17.0%. In comparison to the Eastern German city Katowice is a demographically young city. Furthermore, the ageing process in the Polish cities is proceeding with a lower dynamic than in the Eastern German ones. The age structure

³⁰ “Infolge eines plötzlichen Geburtenrückgangs zwischen 1965 – 1975 sanken die Aufwendungen für das Aufbringen der Kinder. Gleichzeitig nahm der Anteil der Bevölkerung im erwerbstätigen Alter zunächst zu, da die Altenquote noch nicht ansteigt. Diese vorteilhafte Phase nähert sich für Deutschland derzeit ihrem Ende.“

of Łódź and the Metropolis Silesia is still young and it can be regarded as favorable for the economic development.

The demographic profile of Chemnitz is not the oldest one. Already in 2007, in Hoyerswerda the number of the elderly (28.5%) was 3.5 times higher than that of the young (8.2%). With such an old demographic profile these cities not only have low chances for a sustained reproduction but also their economic recovery is hardly possible. This is due either to a low number of working population and due to the fact that an older population adapts to the changing conditions with more difficulties than a young one.

It is worth noting that, at the end of the 1980s, shifts in Western Germany's age structure were not seen as problematic for the urban development (Gatzweiler & Strubelt, 1988). Despite the population decrease cities like Munich and those in Rhein/Mein area were described as prospering by Häussermann and Siebel (Häussermann and Siebel 1987). In the GDR, at the same time, the problems arising from the ageing of the population were not attracting a wider attention. Twenty-five years ago, the ageing process of the cities in Germany was far less advanced than today and the population structure was not triggering negative consequences for the economic development. Similar attitude is present in the Anglo-American discourse where the population decrease is not necessarily treated as a sign for a city economic crisis, as other positive features such young population profile may act as its compensation.

6.1.2. “Shrinking city” and socialist city

As presented in Part 2.4.2 in some publications “shrinking city” term is being used in reference to the GDR cities. Furthermore, the urban shrinkage is ascribed to Łódź and the Metropolis Silesia in the socialist period (Großmann, et al. 2008, 90). This understanding implies that the GDR urban development is treated as being in crisis and as exemplary for other socialist cities.

In comparison with the other socialist countries the GDR urban development could be regarded as being in crisis. Its low urban population increase contrasted sharply with the rocketing urban population numbers in the other countries of the socialist block. Polish urban population increased in that period by *16 million* people (Table 4). Łódź and the Metropolis Silesia cities had at that time intensively growing population numbers.

Socialist cities faced great population increments that were driven by huge workforce demand created by industrial investments. Therefore, it can be stated that a socialist city with its high number of jobs and population increase is in fact *the antonym* of a “shrinking city”, where population decrease and jobs reduction are highly pronounced.

The spatial development of the GDR city should not be treated as typical for a socialist city. One of the major characteristics of a socialist city was the great deficit of housing and other urban infrastructure. The socialism used to maximize the volume of investments in industry and at the same time economized on “non-productive” investments such as housing, but also other urban infrastructure (Szelenyi 1996, 296). In a socialist city housing construction lagged behind the population increments. In the GDR despite low population increase and large pre-1945 housing structure the housing construction rates were kept very high. Such a development resulted in an overproduction of flats that was recorded already at the beginning of the 1980s. Inner cities started to be in a severe crisis already in the socialism. Abandoned flats and dilapidated buildings were a common sight in the GDR inner cities. As a result of these processes Eastern German city structure changed from a compact one into a perforated and stretched over a greater area.

Hence, a GDR city was characterized by a low or no population increase, large existing housing stock and a very intense construction activity, much beyond the real demand. On the contrary a socialist city was characterized by a huge population increase, small existing housing stock and insufficient housing construction. *Therefore, the GDR urban development is not exemplary for other socialist countries and should be treated as very distinct.*

The socialist period caused substantial changes between the Eastern and Western German cities’ development. In comparison with the Western German development of large cities the GDR one was more positive. Although the GDR population was decreasing the urban population was growing, while the rural one was decreasing. This was a contradictory development to that found in Western Germany, where in the 1970s and 1980s the rural population was growing while the urban one was decreasing due to strong suburbanization and de-urbanization processes. The population decrease of some cities and many towns in the GDR was neither caused by the reduction of jobs nor by suburbanization as the term “shrinking cities” established at the end of the 1980s suggests. Their population decrease was caused primarily by the overall population decrease at country level and the movement of people from neglected towns and cities. *Therefore, the GDR depopulating cities should not be*

called as “shrinking” as the reasons for their depopulation were entirely different from those identified by Häussermann and Siebel for the Western German cities in the late 1980s.

6.1.3. “Shrinking city” and post-socialist city

Eastern German cities were transformed from a socialist city directly into a “shrinking” one (C. Hannemann 2004). This rule is supposed to be applicable to cities in the former block. However, as presented in the previous part the GDR cities were not representative for the socialist development. After 1989, the development of the Eastern German cities further diverged from the development in other Central and Eastern European countries.

One of the most important changes during the transformation process from socialism into capitalism was a radical replacement of a centrally planned economy by a free market. This change triggered the need to replace the existing regulations concerning spatial development by the new ones.

In Poland the planning system originating from the socialism was rejected and spatial development of cities became largely liberalized. As opposed to the socialism, when private property had little importance for the spatial planners, after 1989 this approach changed entirely. The private property received a supreme role over the public interest. This domination had negative consequences on the city development. In many cases the e.g. communal investments were blocked due to ongoing protests of e.g. neighbor landlords.

The socialist cities used to be dominated by the state ownership. This started to change completely in the 1980s when very broad privatizations of the housing stock in cities were introduced. Nowadays, the levels of privately owned flats in countries of Central and Eastern Europe have already exceeded those highest found in Western Europe (Part 5.3.3). This process was coupled by numerous restitutions. As a result, the private property in a post-socialist city plays a very important role not only because it is favored in relation to the public interest but also because of its large share in urban structure.

The spatial planning system in Poland is still in a formation phase. There is a lack of clearly defined regulations and plans (e.g. at the moment only 36% of the Krakow’s surface is covered with the local development plans). Particularly in the 1990s, this situation was exacerbated by a deficiency of experienced staff able to steer cities under free-market

conditions. The city officials and representatives had to acquire the know-how first and several years were needed to train such a staff.

The high importance of private property, the weak spatial planning system and the unprepared city officials drove the development of a post-socialist city chaos and lack of coordination. Hence, the essence of the post-socialist city is chaos, not only in the economic and social terms, but particularly in the spatial one (Stanilov 2007, 352).

Such chaos was never present in the Eastern German cities. The problems resulting from a weak planning system, domination of private ownership over the public interest and a lack of know-how did not exist there. After the Reunification in 1990, all legislation, including a well-developed planning system, was transferred to Eastern Germany. The German spatial planning system has a very long history beginning already in the mid of the 19th century – the time of the most rapid urban development in Germany. Over following decades the planning system was constantly being improved. Today the public interest has a dominating position over the private one and German planning system may be regarded as very efficient. Furthermore, low influence of the private property on the city development in Germany is supported by low shares of individually owned flats, which count to the lowest in Europe.

Apart from the transfer of a very well developed planning system a transfer of know-how occurred. Many planners and experts moved from Western Germany to the Eastern German cities e.g. the first mayor of Leipzig, Hinrich Lehmann-Grube, came from Hannover (Glock 2006, 111). These transfers largely eased the development of the Eastern German cities. They and their surroundings were never developing so chaotically as cities in other post-socialist countries. On the contrary, they were developing in a coordinated and planned way.

However, there is another side of the coin. As it was presented in Chapter 4 at the beginning of the 1990s the expectations for the Eastern German development were very positive and no one thought of another development path. The very efficient planning system and many experts from the West prepared the Eastern German cities for the expected economic and demographic boom. Cities and communes started to create numerous investment grounds and construction of one-family houses increased. This happened despite the fact that “Städtebauprognose DDR” from 1990 (Hunger 1990) – the final document concerning the urban development in the GDR warned of such growth oriented, extensive development.

The expected boom did not appear, though. This is a very important source of the problems Eastern German cities face now. Many investments created in the 1990s, like those concerning technical infrastructure e.g. sewage treatment plants, are nowadays very oversized. They were planned for at least the inhabitants' number of the 1990s, while nowadays it is in many cases by 30% lower. An overproduction of housing is also a visualization of discrepancy between the past positive expectations and the reality. It is important to note that the planning policies in Eastern Germany from the turn of the 1990s did not deal with the issues of the demographic ageing. Cities development was programmed as if they had young and growing populations. In reality they had rapidly ageing, decreasing population.

It can be stated that the space in post-socialist cities was shaped by the market. There were neither over-dimensioned growth expectations nor did spatial planning system interfere with the market. The housing and infrastructure construction was low and it was not sufficient. In contrast to the above, the Eastern German cities' development was steered by the state. The goal of very efficient spatial planning system was to introduce dynamic growth into those cities. However, these measures turned out not to be effective. The case of Eastern German cities gives a proof of a great inertia in the urban development. Even the most effective growth oriented policies are not capable of bringing back intensive growth to a city in which this phase is gone. In fact such policies can make the situation more difficult.

All in all, it can be said that processes in both: the socialism and the period after 1989 contributed to the emergence of the currently observed crisis of cities in Eastern Germany. *After 1989, the urban development in Eastern Germany was again very distinct in relation to the other countries of the former socialist block.*

6.2. Final conclusions

The presented in Part 2.4 current interpretations of the “shrinking city” term, as referring to a city with a decreasing population, a socialist and a post-socialist one prove that its meaning diverged from the original one from the late 1980s. At that time, Häußermann and Siebel highlighted the suburbanization and the economic changes arising from deindustrialization as causes for the city crisis. The crisis was affecting large cities and was expected to be irreversible. As presented above these current interpretations of the “shrinking city” term, as

well as the classic one by Häußermann and Siebel, are not sufficient to describe the situation of the cities in Eastern Germany.

What is a “shrinking city” in Eastern Germany?

The urban crisis in Eastern Germany has its roots in the pre-1945 period. Already in the 1930s Germany entered the post-industrial phase and many cities started to depopulate at that time. After the war, the Eastern German cities did not have the opportunity to go through this phase as the Western German cities did. On the contrary, during the socialism and in the period between 1990-2000 their development policies were based on very large growth expectations for jobs, population and housing needs. Although already at the end of the 1980s, it was realized that these growth oriented policies coupled with only in some cases moderately growing population in cities were bringing more harm than profit, they were not only continued but were intensified in the 1990s. Hence, in Eastern Germany the city crisis results from the negative consequences of long-lasting population decrease coupled with decades of growth oriented policies. The negative consequences of these processes were intensified by so called *de-economization* (C. Hannemann 2004) in the 1990s.

Nowadays a downward spiral in many Eastern German cities may be observed. The long-lasting population decrease began to be coupled with other regressive processes, which tend to intensify each other. The more advanced ageing of the population the lower chances for the economic revival. The more population decreases, the more abandoned buildings, the lower the density, which hinders social exchange and increases the costs of the city maintenance. All these elements support the main finding of Häußermann and Siebel on the “shrinking city”: the critical situation in a ‘shrinking city’ is irreversible.

On the basis of the presented analysis of the Eastern German urban development I consider the urban development in Eastern Germany to be very distinct and unique. Therefore, the following definition refers only to the cities in Eastern Germany:

“Shrinking city” in Eastern Germany is a city with a long-lasting population decrease coupled with over-dimensioned, growth-oriented development policies carried out for decades. Such a development path is triggering negative consequences in the spatial, economic and also demographic dimension, which tend to intensify each other. A very advanced ageing of the population makes the economic recovery hardly possible. The city

structure is perforating and it is characterized by numerous abandoned buildings due to low population density and its decrease. These negative consequences are exacerbated by a process of de-economization, which took place in the early 1990s.

The definition above shows that the urban development in Eastern Germany is much more complex and full of nuances than what the commonly used definitions of the “shrinking city” term presented in Part 2.4.2 suggest.

The consequences of the future ongoing population decrease and ageing in Eastern German small cities and numerous towns will certainly influence their economic and spatial developments in a negative way. They will pose great challenge for inhabitants, city authorities and politicians. The currently favored inner city oriented development policy may contribute to alleviate these negative consequences. However, a sustained regeneration of Eastern German small cities and towns is highly unlikely. Cities like Suhl or Hoyerswerda continue to depopulate, because they lack high schools, amenities and their economic situation is very difficult. At the same time large cities like Erfurt, Rostock, Dresden and Leipzig have been having slightly increasing populations in recent years. This indicates that the urban development in Eastern Germany may be polarizing into cities with worsening situation and those which are able to stabilize their development.

Is the term “shrinking city” in Eastern Germany appropriate to depopulating cities in Poland?

It is a widely held opinion that socialism and post-socialist transformations caused severe city crisis in countries of Central and Eastern Europe. This opinion was created on the basis of the development in Eastern Germany, which is treated as exemplary for other post-socialist countries. Changes in the cities in Poland and other countries of Central and Eastern Europe are regarded as a follow up of the Eastern German processes. As presented in this study, neither during the socialism nor after 1989 was the urban development in Eastern Germany typical for Central and Eastern Europe. The differences between the development patterns of the Polish and Eastern German cities are significant. Table 29 presents characteristics of the “Eastern German shrinking cities”, elaborated on the basis of analysis of 25 Eastern German cities, which were not found in the analyzed Polish cities.

demographic	spatial	economic
Population decrease traces back to the pre-1945 period	Dynamically extending urban structure, not corresponding with the demographic development	Unfavorable age structure – economic recovery hardly possible
High decrease of the population number, but the real depopulation is hidden due to cities' vast areas that include suburban zones	Perforated and perforating urban structure	Rapid and radical deindustrialization after a phase of being suspended
Extremely advanced aging, age structure impedes a sustained population growth	Numerous housing, industrial and infrastructural vacancies	Low share of individually owned flats (ease migration)
Low (and lowering) population density	Extended administrative area Large part of the urban structure is formed by pre-1945 buildings	Very high unemployment rate

Table 29. Characteristics of the „shrinking city” in Eastern Germany, which are not found in the analyzed Polish depopulating cities

The depopulation of the Metropolis Silesia and Łódź is not causing such negative changes in the economic and spatial dimensions as in case of the Eastern German cities. This negative trend, which is a process much younger than in Eastern Germany, is still compensated by some other positive processes. The age structure of Łódź and the Metropolis Silesia is still young and it can be regarded as favorable for the economic development. Both urban areas tend to attract numerous investments of modern industries due to the low wages. They remain the most important production centers of the country as they used to be throughout their history. As opposed to the GDR cities the spatial development of Łódź and the Metropolis Silesia *lagged behind* the demographic one. After 1989, there was neither an intense suburbanization nor was the housing construction beyond the demand present. Despite current population decrease both urban areas still suffer from a large deficiency of housing and other basic infrastructure. Their population densities remain high and the urban development is center oriented. Therefore, despite the depopulation, the situation of Łódź and the Metropolis Silesia is not treated as severe and critical. Nowadays, in Poland city depopulation is not treated as a threat for the city development, similarly as in Germany of the 1980s.

The answer for the research question whether a „shrinking city” term, can be used in reference to depopulating cities in Poland is following:

The term “shrinking city” in Eastern Germany is not appropriate to depopulating cities in Poland. They are characterized by a short-lasting population decrease – this trend is not triggering negative spatial and economic consequences. Oversized growth development policies were never present in the cities and they still suffer from great deficiencies in housing and other basic infrastructure, which derive from the socialist period. Radical de-economization, known from Eastern German cities, did not occur in the Polish cities.

The development of the analyzed Polish cities is in fact supporting the earlier presented definition of the “shrinking city” in Eastern Germany. In cities, where population decrease is not a long-lasting process and where spatial development did not exceed the demographic one, the negative phenomena are not dominating. Sheer population decrease does not necessarily indicate a city crisis.

Łódź and the Metropolis Silesia also do not meet the criteria of the classic understanding of a “shrinking city” by Häußermann and Siebel, who described it as a large city suffering from deindustrialization, suburbanization and resulting from them population decrease. Deindustrialization and suburbanization had different course of action in the Central and Eastern European cities than in the Western ones. Processes taking place in highly developed countries of Western Europe with mature urbanization should not be treated as exemplary for post-socialist countries in Central and Eastern Europe, which are still developing ones. Deindustrialization in highly developed countries resulted in very high unemployment rates in cities. However, in Central and Eastern Europe the under-urbanization changed substantially the commonly known path of deindustrialization. In Łódź and the Metropolis Silesia unemployment rate did not concentrate excessively because most of the dismissed workers were those who commuted from large distances. Hence, the unemployment rate did not constitute a very strong push factor for inhabitants to leave these cities. The product life cycle theory explains why the production is being moved away from the highly developed countries. It is not applicable to the post-socialist countries, which are still developing ones with low-wage employees and profit from coming new investments. In Łódź and the Metropolis Silesia low-tech production is being replaced by a more modern one and they undergo a process of re-industrialization. Furthermore, suburbanization was weaker in Central

and Eastern European countries than in Western ones. It was neither supported by the state nor were people affluent enough to finance a housing construction.

Current Polish urban development, despite expectations, is not witnessing polarization of the large cities development, which was described by Häußermann and Siebel. In the late 1980s, in “shrinking cities” in Western Germany residential real estate prices were dropping considerably, while they were growing substantially in the prospering ones. Such a divergent development of the residential real estate prices in the Polish cities is not taking place. They were growing in Łódź and Metropolis Silesia, though not as intensively as in e.g. Warsaw. Recently, they have been falling down in all Polish cities and their decrease in Łódź and the Metropolis Silesia is not the highest one.

Development prospects of Łódź and the Metropolis Silesia do not seem to worsen in the near future, as both of them are going to have the best road connection in the whole country (north-south and west-east highways’ junctions – the only in Poland). Moreover, the current strategy of the regional development of Poland for years 2010-2020 moved the priority of funds allocations from poorer and rural areas into metropolitan ones. Large cities became the most important for the development policy (MRR 2010). This means, that Łódź and the Metropolis Silesia will be more supported financially in their change from low-tech production places into consumption and innovation ones. Positive changes in the other large cities (Krakow, Gdańsk, Wrocław have growing populations again) may give a proof of a general regeneration of large cities in Poland.

The urban development path varies between countries and it is mirrored by different discourses on the urban issues. In Poland, so far, population decrease in cities has not been a subject of a broad debate. The urban discourse is dominated by the issues of counteracting the chaotic development and the qualitative improvements of cities known in the Polish discussion as “rewitalizacja miast”. Discussions on city problems are held but a debate on a city crisis, similar to the German one, does not exist, despite ongoing depopulation in some cities. This attitude is similar to the Anglo-American current urban debate, where depopulation is not treated as a threat and it can allow for a city’s dynamic economic development.

Polish cities with a decreasing population are witnessing different processes than those which take place contemporaneously in the Eastern German cities. Therefore, a discussion on the city crisis similar to that taking place in Germany is not occurring in Poland. The dissertation showed that it is not possible to transfer directly the concepts of the urban discussion of a country onto another one, which has different development preconditions.

Conclusions for urban development in Europe and potential subjects for further research

This dissertation showed that there are substantial differences between the urban development of Western and Central and Eastern Europe. Eastern Germany, through its very complicated history in the 20th century was under the influence of both these development' patterns and its urban development was put under very unusual circumstances. Both during the socialism and after 1990, it was very distinct in relation to the one found in the other countries of the former socialist block. On the other hand however, the socialist period caused that Eastern German urban development diverged greatly from the Western German one. It became distinct also in relation to Western German pattern. Therefore, it can be stated that urban development in Eastern Germany is unique. For this reason it requires special attention and further studies should be carried out to explore its peculiarities.

Although nowadays the shares of urban population in Western and Central and Eastern Europe are comparable, substantial differences remained. Population in Central and Eastern Europe is more concentrated in large cities than in small towns, while in Western Europe urban network is very dense and it is composed of small elements. The structure of cities in Central and Eastern Europe is dominated by large residential estates built according to the modernist principles. This spatial structure is contrasting with the one found in a Western European city, where traditional urban design dominates. Studies dealing with these differences would be very much desired in the integrating Europe, which aims at developing coherent spatial and urban development policies. Furthermore, the existing differences between the urban development of the Western and Central and Eastern Europe also imply that the future development of cities in Central and Eastern Europe will not follow the Western European path. This remark should be taken into consideration by developing recommendations for the future urban development in Europe.

This dissertation showed how important it is to carry out a spatial development policy in cities in harmony with their demographic development. Demographic changes such as population decrease and ageing have and will have a growing impact on the cities' spatial development in Europe. However, there is still a lack of such understanding among architects and city planners. It is very much needed because these demographic changes are presumably going to prevail in the future. In order to prepare proper projects that well correspond to the changing population, architects and planners should be aware of the demographic processes. Therefore, studies showing how the urban spatial development should be carried out under the changing demographic conditions are needed.

Résumé

The aim of this doctoral thesis was to investigate whether the German term “shrinking city” is appropriate to depopulating Polish cities. In order to do so an attempt to define the currently still vague notion of “shrinking city” was made. The urban development of Eastern Germany was thoroughly examined both in a short term perspective and in a wide historical as well as international context, with the Polish urban development used as reference. 25 cities (kreisfreie Städte) in Eastern Germany and depopulating Polish cities: Łódź and the Metropolis Silesia were chosen as case studies.

On the basis of the gathered information a “shrinking city” in Eastern Germany was defined as *a city with a long-lasting population decrease coupled with over-dimensioned, growth-oriented development policies carried out for decades. Such a development path is triggering negative consequences in the spatial, economic and also demographic dimension, which tend to intensify each other.*

The thesis postulates that the definition of the “shrinking city in Eastern Germany” is not appropriate to depopulating cities in Poland. Polish cities are characterized by a short-lasting population decrease and this trend is not triggering negative spatial and economic consequences. Oversized growth development policies were never present in the cities and they still suffer from great deficiencies in housing and other basic infrastructure, which derive from the socialist period. Furthermore, radical de-economization, known from Eastern German cities, did not occur in the Polish cities. Both Łódź and the Metropolis Silesia remain main production centers of the country.

This doctoral thesis presents a contradictory view to contemporary publications on “shrinking cities”, in which this phenomenon is regarded as having occurred suddenly after the collapse of the socialism. It proved that “shrinking cities” in Eastern Germany are not the outcome of short-lasting processes, but are deeply rooted in the past. Moreover, they represent a very distinct development pattern that highly differentiates from the one found in Central Eastern Europe and the one in Western Europe. In this way the doctoral thesis provided a new, critical approach to the discourse on “shrinking cities” in Germany. It also draws attention to the importance of the historical analysis in cities’ development research, particularly in cross border studies. In time of European integration peculiarities resulting from centuries of different spatial, economic and social development paths should not be underestimated.

Zusammenfassung

Seit über einem Jahrzehnt wird in Deutschland eine heftige Debatte über „schrumpfende Städte“ geführt. Ausgelöst wurde sie durch die krisenhafte Situation der ostdeutschen Städte. Sie sind durch eine hohe Bevölkerungsabnahme, Leerstände, verlassene Innenstädte, hohe Arbeitslosigkeit, niedrige Investitionsattraktivität sowie das hohe Durchschnittsalter der Bevölkerung gekennzeichnet. In Westdeutschland dagegen ist die Situation der Städte nicht derart angespannt. Deshalb wurde die Krise der Städte in Ostdeutschland überwiegend als Ergebnis des Sozialismus und der darauf folgenden Transformation interpretiert. Die Entwicklung der Städte in den anderen post-sozialistischen Staaten schien diese Interpretation zu bestätigen, weil manche von ihnen Anfang der 90er Jahre an Bevölkerung zu verlieren begannen. Als Folge davon haben die Forscher die ostdeutsche Stadtentwicklung als ein Vorausphänomen für die Stadtentwicklung in Mittel-Osteuropa dargestellt und Städte, die dort an Bevölkerung verlieren, als „schrumpfend“ bezeichnet, womit behauptet wird, dass sich diese Städte in einer tiefen Krise befinden.

Der Begriff „schrumpfende Stadt“ bleibt allerdings in der polnischen urbanen Debatte unbekannt. Die Bevölkerungsabnahme in den polnischen Städten wird nicht als Zeichen ihrer Krise betrachtet und es existiert keine vergleichbare Debatte zu derjenigen, die sich jetzt in Ostdeutschland vollzieht. Es existiert also eine Diskrepanz zwischen der deutschen und polnischen Wahrnehmung der polnischen Städte, die an Bevölkerung verlieren. Das Ziel dieser Dissertation war es, zu klären, ob die Verwendung des Begriffs „schrumpfende Stadt“ auf Städte in Polen und Mittel-Osteuropa übertragbar ist und inwieweit die Stadtentwicklung Ostdeutschlands exemplarisch für diejenige Mittel-Osteuropas angesehen werden kann. Die Forschungsfrage lautete:

Kann der Begriff der "schrumpfenden Stadt" auch auf polnische Städte, die an Bevölkerung verlieren, angewendet werden?

Die heutige Nutzung des Begriffs „schrumpfende Stadt“ hat sich stark in seiner Bedeutung verändert. In den späten 80er Jahren, als der Begriff entstand, bezeichnete er eine Großstadt, die durch Deindustrialisierung und Suburbanisierung an Bevölkerungsrückgang litt. Die Analyse der zeitgenössischen Fachliteratur zeigte, dass der Begriff heutzutage für alle Städte, die an Einwohner verlieren, für post-sozialistische und sozialistische, verwendet wird.

Die Beantwortung der Forschungsfrage erforderte eine Definierung des bisher undeutlichen Begriffs „schrumpfende Stadt“. Dazu wurde eine breite historische Analyse der Stadtentwicklung in Ostdeutschland verwendet und mit der polnischen Stadtentwicklung verglichen. Es wurden drei Perioden identifiziert: die Zeit vor 1945, die Zeit des Sozialismus und die Periode nach 1989/1990. Als Fallstudien wurden 25 kreisfreie Städte in Ostdeutschland ausgewählt sowie Łódź und die Metropole Silesia in Polen, die in mehreren Publikationen, die sich mit dem Thema befassen, als „schrumpfend“ beschrieben sind. Die Analyse basierte auf statistischen Daten, Fachliteratur sowie eigenen direkten Beobachtungen.

Im 20sten Jahrhundert wurde die ostdeutsche Stadtentwicklung durch besondere Bedingungen bestimmt. Bis 1945 entwickelten sich ostdeutsche Städte unter den gleichen Prämissen wie westdeutsche. Während des Kaiserreichs erlebte Deutschland die größte Stadtentwicklung in seiner Geschichte. Innerhalb von 39 Jahren stieg die Stadtbevölkerung fast dreifach an: von 14,75 Mio. im Jahr 1871 (36 %) auf 39 Mio. im Jahr 1910 (60 %). Dieses rasante Städtewachstum wurde von einem hohen demographischen Zuwachs begleitet. In der Zwischenkriegszeit sanken die Wachstumsraten der Städte sowie der Bevölkerung stark und schon damals fingen einige Städte in Deutschland an, Bevölkerung zu verlieren.

Nach 1945 entwickelte sich die Stadtentwicklung in beiden Teilen Deutschlands unterschiedlich, obwohl einige Gemeinsamkeiten Bestand hatten. In beiden Teilen Deutschlands begann Ende der 80er Jahre eine Debatte zum Thema Stadtkrise. In Westdeutschland waren davon die Großstädte betroffen, in der DDR hingegen die Kleinstädte. Beide Länder verzeichneten Bevölkerungsverluste. In Westdeutschland nahm die Bevölkerung nur in einem kurzen Zeitraum ab und wurde schnell durch einen hohen Immigrationsanteil ausgeglichen, sodass zwischen 1950 und 1990 die Einwohnerzahl um 26,6 % stieg. Dahingegen verlor die DDR stetig an Bevölkerung, insgesamt ca. 2 Mio., und damit 12,5 % der Bevölkerungszahl, zwischen 1950-1990.

Nach 1945 wurde Ostdeutschland Teil des Ostblocks, in dem völlig andere Rahmenbedingungen für die Stadtentwicklung herrschten. Die Länder Mittel-Osteuropas waren zu Beginn des Sozialismus schwach industrialisiert und waren durch einen hohen Anteil an Agrarbevölkerung geprägt. Der Urbanisierungsgrad in Polen und Rumänien betrug im Jahr 1950 lediglich 30 %, in Ungarn 40 %, in Bulgarien und Jugoslawien weniger als

20 %. Die verschiedenen sozialistischen Regierungen strebten eine schnelle Industrialisierung und Urbanisierung an, um das wirtschaftliche und soziale Niveau Westeuropas zu erreichen.

Während des Sozialismus erlebten die Länder Mittel-Osteuropas die größte Stadtentwicklung in ihrer Geschichte. Innerhalb von 42 Jahren stieg die Stadtbevölkerung in Polen um das Dreifache an: von 7,5 Mio. (31,4 %) in 1946 auf 23,2 Mio. (61,2 %) in 1988. Zwischen 1950 und 1988 ist die Bevölkerungszahl von Łódź um 37 % und die der Metropole Silesia um 83 % gestiegen. Andere polnische Städte verzeichneten noch höhere Wachstumsraten in dieser Zeit. Polen hat damals auch ein großes demographisches Wachstum erlebt: zwischen 1946 und 1988 wuchs die Bevölkerungszahl von 23,9 Mio. auf 37,9 Mio.

Die Stadtentwicklung der DDR unterschied sich stark von der Stadtentwicklung in den anderen sozialistischen Ländern. Die DDR war im Gegensatz zu den anderen Ländern des Ostblocks von Anfang an ein hoch industrialisiertes und urbanisiertes Land. Der Urbanisierungsgrad betrug in den 40er Jahren mehr als 70 %. Die sozialistischen Ziele der schnellen Industrialisierung und Urbanisierung des Landes waren nicht geeignet für die DDR. Dennoch musste das Land diese Ziele in gewissem Maße erfüllen. Trotz der sinkenden Bevölkerungszahl in vielen Kleinstädten und manchen Großstädten war die Stadtentwicklung in der DDR sehr weitläufig und viele Neubausiedlungen entstanden an den Stadträndern. Solch intensiver Wohnungsbau war eigentlich nicht nötig, weil die Städte in der DDR große Wohnungsbestände hatten, was ein Ergebnis der Stadtentwicklungstendenzen während des Kaiserreichs war. Als Folge der Kombination aus Bevölkerungsabnahme, bzw. einem leichten Bevölkerungszuwachs, und dem sehr intensiven Wohnungsbau am Stadtrand bestand schon zu Beginn der 80er Jahre ein Wohnungsüberschuss in den Städten der DDR. Das Phänomen der Leerstände in den Innenstädten war sehr verbreitet. Schon damals wurden Abrissmaßnahmen durchgeführt. Ca. 1,5 Mio. Wohnungen in Gebäuden, die vor 1945 errichtet wurden, wurden zu DDR-Zeit abgerissen.

Trotz des Ende der 80er Jahre aufgestellten Postulats, die Stadtentwicklung der DDR von einer extensiven in eine intensive umzuwandeln, wurde nach der deutschen Wiedervereinigung 1990 die vorhandene, sehr extensive Stadtentwicklung noch weiter forciert. Die Folgen dieses Prozesses erwiesen sich als sehr dramatisch. Sie wurden verschärft durch die hohe Abwanderung der Bevölkerung, die schon Mitte 1989 anfang. In den 90ern war der Bevölkerungsrückgang in ostdeutschen Städten besonders stark. Es ist insbesondere darauf hinzuweisen, dass die Höhe des Bevölkerungsrückgangs in ostdeutschen Städten

heutzutage unterschätzt wird als Folge von Eingemeindungen. Im Zuge intensiver Suburbanisierungsprozesse haben die Städte viele Einwohner verloren. Diese Gebiete wurden später in die administrativen Grenzen vieler Städte eingemeindet. Als Folge davon fällt ihr Bevölkerungsrückgang statistisch betrachtet niedriger aus. Die Kombination von intensiver Bautätigkeit und stark sinkenden Einwohnerzahlen hat dazu geführt, dass der bestehende Überschuss von Wohnungen noch stärker angestiegen ist. Im Jahr 2000 standen über 1 Mio. Wohnungen in Ostdeutschland leer. Diese negativen Entwicklungen in den räumlichen sowie demographischen Dimensionen wurden noch von der De-Ökonomisierung der ostdeutschen Wirtschaft angetrieben.

Die Prozesse des Bevölkerungsrückgangs, der räumlichen Dekonzentration sowie des Abbaus der ökonomischen Basis waren in den ostdeutschen Städten nach 1989/1990 extrem. Die Dissertation zeigt, dass die Intensität dieser Prozesse in den polnischen Städten niedriger war. Das Bevölkerungswachstum von Łódź und der Metropole Silesia nahm in den 80er Jahren ab und Anfang der 90er Jahre verzeichneten beide städtischen Regionen Bevölkerungsverluste – zum ersten Mal in ihrer Geschichte. Im Gegensatz zu vielen ostdeutschen Städten erfolgten in Łódź und der Metropole Silesia keine Eingemeindungen. Dennoch ist der Rückgang ihrer Einwohnerzahlen niedriger als für den Durchschnitt der analysierten ostdeutschen Städte. Die Suburbanisierung war in Polen nie so stark ausgeprägt wie in Ostdeutschland. Die Leerstände existieren nicht, ganz im Gegenteil: es herrscht eine große Wohnungsnot, die landesweit auf 1,4 – 1,5 Mio. Stück geschätzt wird. Diese Wohnungsnot stammt noch aus sozialistischen Zeiten, in denen die Städte rapide Bevölkerungszuströme erlebten und der Wohnungsbau, trotz der hohen Bauintensivität, nicht ausreichend war. Heutzutage werden die Plattenbausiedlungen selbst in Städten mit Bevölkerungsrückgang nicht verlassen. Die Wohnungen in der Platte bleiben für die Käufer aufgrund ihrer niedrigen Preise sehr attraktiv. In Gegensatz zu Ostdeutschland wurde nach 1989 die Mehrheit der Wohnungen in Mittel-Osteuropa privatisiert. Zudem werden Wohnungen nicht vermietet, sondern gekauft. Die Eigentumsquoten sind jetzt in Mittel-Osteuropa höher als in Westeuropa.

Die Deindustrialisierung in post-sozialistischen Städten nahm auch einen anderen Verlauf als in Ostdeutschland sowie anderen hoch entwickelten Ländern. Während des Sozialismus mussten viele Arbeiter von ihrem Haus im Dorf aus zur Arbeit in die Stadt pendeln. Die Ursache dafür war die unzureichende Errichtung von Wohngebäuden in den Städten und der riesige Bedarf an Arbeitskraft. Nach dem Niedergang des Sozialismus und im Zuge der Restrukturierung der Wirtschaft verloren diese Arbeiter, die von den Dörfern zur Arbeit in die

Stadt pendelten, als erste ihren Arbeitsplatz. Als Folge davon hat sich die Arbeitslosigkeit nicht stark in den Städten konzentriert, stattdessen verteilte sie sich über ein größeres Areal.

Die zukünftige demographische, räumliche sowie ökonomische Entwicklung der ostdeutschen und polnischen Städte wird maßgeblich von der Altersstruktur ihrer Bevölkerung geprägt. Die ostdeutschen Städte sind durch das hohe Durchschnittsalter der Bevölkerung gekennzeichnet. Im Jahr 2007 betrug der Anteil der über 65-Jährigen im Durchschnitt 22,9 %, und lediglich 9,9 % waren jünger als 15. In den polnischen Fällen waren diese Quoten entsprechend: 14,1 % und 13,2 %. Eine vertiefte Analyse des Alterungsprozesses zeigte, dass er in den polnischen Städten weniger intensiv ausgeprägt war als in den ostdeutschen Städten. Zahlreiche Studien bewiesen, dass die sehr fortgeschrittene Alterung der Bevölkerung einen negativen Einfluss auf die ökonomische Entwicklung haben und das ökonomische Wachstum verhindern kann. Dagegen kann eine Bevölkerungsstruktur mit niedrigem Anteil an Alten sowie niedrigem Anteil an Jugendlichen sehr positive Auswirkungen auf die wirtschaftliche Entwicklung haben.

Wesentliche Ergebnisse

Der oft verwendete Bevölkerungsrückgang als eine Determinante für eine „schrumpfende Stadt“ ist laut dieser Studie nicht ausreichend, um zu behaupten, dass sich eine Stadt in einer Krise befindet. Wichtig ist die Dauer dieses Prozesses. Die Phase der rapiden Stadtentwicklung in Deutschland endete vor 1914. Manche ostdeutsche Städte erleben den Bevölkerungsrückgang schon seit über 100 Jahren (z. B. Plauen). Dieser langjährige Prozess führte zu großen Bevölkerungsverlusten, wie z. B. in Leipzig, das in der Zeit zwischen 1930 und 2010 etwa 200.000 Einwohner und damit knapp ein Drittel seiner Bevölkerung verlor. Diese langjährigen Bevölkerungsverluste führten in den ostdeutschen Städten zu gravierenden Veränderungen, die durch die Einführung des sozialistischen Systems und dessen Zusammenbruch Ende der 80er Jahre verstärkt wurden. Eine der wichtigsten Veränderungen ist gealterte Struktur der Bevölkerung. Sie wird besonders deutlich im Vergleich mit der Altersstruktur polnischer Städte, in denen die Bevölkerungsabnahme einen viel kürzeren und weniger intensiven Prozess darstellt.

Die Dissertation stellt fest, dass die räumliche Stadtentwicklung in Ostdeutschland zwischen 1945 und 2000 die demographische Entwicklung weit überschritt. Die enorme Bautätigkeit an den Stadträndern, trotz gesättigten Wohnbedarfs und sinkender Bevölkerungszahl, führte zu einem großen Überschuss an Wohnungen sowie Infrastruktur. Das war in Łódź und der Metropole Silesia nicht der Fall. Dort lag die räumliche Entwicklung stets hinter der demographischen. Es herrscht dort immer noch, trotz sinkender Bevölkerungszahl, seit über 20 Jahren, eine hohe Wohnungsnot.

Der Begriff „schrumpfende Stadt“ wird in manchen deutschen Publikationen mit sozialistischen Städten assoziiert. Diese Interpretation ist ungeeignet, weil – wie die Arbeit zeigt – die sozialistische Stadt abgesehen von der DDR durch ein enormes Wachstum an Bevölkerung und Arbeitsplätzen charakterisiert wurde. Dahingegen ist die „schrumpfende Stadt“ durch Bevölkerungsrückgang und den Abbau von Arbeitsplätzen geprägt. Demzufolge ist die sozialistische Stadt ein Antonym der „schrumpfenden Stadt“. Der Bevölkerungsrückgang in manchen DDR-Großstädten war für die sozialistische Stadtentwicklung sehr ungewöhnlich und kann deshalb nicht als exemplarische sozialistische Entwicklung bezeichnet werden.

Im Vergleich zu der Entwicklung westdeutscher Großstädte, die im gleichen Zeitraum an hohen Bevölkerungs- sowie Arbeitsplatzverlusten litten und als „schrumpfend“ bezeichnet wurden, war die Entwicklung der Großstädte in der DDR weniger dramatisch. In DDR-Großstädten war die Bevölkerungsabnahme entweder viel kleiner als im Westen oder sie verzeichneten sogar ein Bevölkerungs- sowie Arbeitsplatzwachstum. Die Abnahme der Bevölkerung in manchen DDR-Großstädten wurde zudem nicht durch Deindustrialisierung und Suburbanisierung ausgelöst. Diese Prozesse existierten nicht im Sozialismus. Sie wurde durch die Bevölkerungsabnahme auf Landesebene verursacht. Die Großstädte, die damals an Bevölkerung verloren (z. B. Leipzig), sollten nicht als „schrumpfend“ bezeichnet werden, weil die Ursachen für ihre Bevölkerungsabnahme andere waren als jene, die in den 80er Jahren von Häußermann und Siebel für westdeutsche Großstädte identifiziert wurden.

Heutzutage wird in Ostdeutschland behauptet, dass die ostdeutsche sozialistische Stadt sich nicht in die post-sozialistische, sondern direkt in die „schrumpfende Stadt“ umgewandelt hat.

Dieses Verständnis wird oft auf die anderen Städte des ehemaligen Ostblocks angewendet. Sie ist aber nicht angemessen, weil – wie oben gezeigt wurde – die DDR-Stadtentwicklung nicht exemplarisch für den realen Sozialismus war und sich die ostdeutsche Stadtentwicklung nach 1989/1990 weit von derjenigen in Mittel-Osteuropa ausdifferenzierte.

Das Hauptmerkmal der post-sozialistischen Stadt ist nicht der Bevölkerungsrückgang und der Abbau der ökonomischen Basis, sondern die Unordnung. In der polnischen urbanen Debatte wird die „chaotische“ Entwicklung der Städte als das wichtigste und am meisten diskutierte Thema behandelt. Der Grund dafür ist, dass nach 1989 in Polen sowie in den anderen Ländern Mittel-Osteuropas die vorhandenen Vorschriften zur Stadt- und Regionalplanung abgeschafft wurden. Das neue Planungssystem wird noch immer entwickelt. Aus dem schwachen momentanen Planungssystem resultiert die sehr chaotische Entwicklung der Städte. Diese Entwicklung wurde durch den Mangel an Know-how der Beamten noch verstärkt: sie mussten erst lernen, Stadtentwicklung unter den Bedingungen des freien Marktes zu betreiben. Nicht zuletzt die Dominanz des privaten Interesses über das der Öffentlichkeit hatte einen negativen Einfluss auf die Stadtentwicklung. So hat das private Eigentum in den post-sozialistischen Städten heutzutage eine viel größere Bedeutung als in westeuropäischen Städten.

Diese Probleme waren in Ostdeutschland nicht bekannt. Nach der Wiedervereinigung im Jahr 1990 wurde die Gesetzgebung Westdeutschlands übernommen. Sie beinhaltet auch das sehr gut entwickelte und effektive Stadt- und Regionalplanungssystem, dessen erste Vorschriften schon in der Mitte des 19. Jahrhunderts entstanden sind. Das öffentliche Interesse ist sehr gut geschützt und das private Interesse hat eine untergeordnete Rolle. Darüber hinaus hat Ostdeutschland nach 1990 vom Wissenstransfer profitiert. Viele erfahrene Experten sind nach Ostdeutschland gekommen, um die Stadtentwicklung unter den Bedingungen des freien Marktes zu steuern. Folglich davon war die Stadtentwicklung in Ostdeutschland planvoll und koordiniert, ganz im Gegenteil zu Mittel-Osteuropa. Dieses sehr effektive Planungssystem führte jedoch zu nicht erwarteten Entwicklungen. Nach der deutschen Wiedervereinigung wurden ostdeutschen Städten sehr gute Chancen in Bezug auf ihre Entwicklung zugeschrieben. Trotz Warnungen der „Städtebauprognose DDR“ aus dem Jahr 1990 war die vorhandene, sehr extensive Stadtentwicklung noch verstärkt worden. Diese Politik des forcierten Wachstums führte zu sehr negativen Folgen, die heutzutage in den ostdeutschen Städten gut sichtbar sind.

Die ostdeutsche Stadtentwicklung sollte nicht als Musterbild der post-sozialistischen Entwicklung bezeichnet werden. Solche Wachstumsstrategien und stark sinkenden Bevölkerungszahlen waren in keiner Stadt in Mittel-Osteuropa vorhanden.

Die vorhandene Definition von Häußermann und Siebel, die eine „schrumpfende Stadt“ als eine Großstadt, die unter Deindustrialisierung und Suburbanisierung Bevölkerungsrückgänge erlebt, ist nicht ausreichend, um die Prozesse, die sich in den ostdeutschen Städten vollziehen, zu beschreiben. Deshalb wurde in der Dissertation die folgende neue Definition der „schrumpfenden Stadt“ vorgeschlagen:

Eine „schrumpfende Stadt“ in Ostdeutschland ist eine Stadt mit langjährigem Bevölkerungsrückgang, gekoppelt mit überdimensionierten, wachstumsorientierten Stadtentwicklungsstrategien. Ein derart ausgeprägter Entwicklungspfad erzeugt negative Konsequenzen in der räumlichen, ökonomischen und auch demographischen Dimension, die sich gegenseitig verstärken. Die weit fortgeschrittene Alterung der Bevölkerung in Ostdeutschland macht ein ökonomisches Wachstum kaum möglich. Die Stadtstruktur erlebt Perforation und ist gekennzeichnet durch etliche verlassene Gebäude als Folge niedriger Bevölkerungsdichte und deren kontinuierlicher Abnahme. Diese negativen Konsequenzen wurden verschärft durch die De-Ökonomisierung der ostdeutschen Wirtschaft, die in den frühen 90er Jahren stattfand.

Der oben definierte Begriff der „schrumpfenden Stadt“ kann nicht auf die polnischen Städte, die an Bevölkerung verlieren, angewendet werden. Der Bevölkerungsrückgang in diesen Städten ist ein junger Prozess. Zudem verursacht dieser Trend keine negativen räumlichen und ökonomischen Konsequenzen. Die überdimensionierten, wachstumsorientierten Stadtentwicklungsstrategien waren nie in den Städten vorhanden. Die Städte verzeichnen noch immer einen großen Mangel an Wohnungen sowie Infrastruktur, der aus der Zeit des Sozialismus stammt. Eine De-Ökonomisierung der Wirtschaft, wie sie in Ostdeutschland stattgefunden hat, war in diesen Städten nicht vorhanden. Sowohl Łódź als auch die Metropole Silesia sind immer noch die wichtigsten Produktionsstandorte des Landes.

Eine Debatte zur Stadtkrise in Polen kann nicht mit den gleichen Ansätzen wie in Ostdeutschland geführt werden. Dem Bevölkerungsrückgang in den Städten kommt wenig Aufmerksamkeit entgegen aufgrund dessen niedriger Intensität und keiner negativen Folgen. Die gegenwärtige urbane Debatte konzentriert sich darauf, der unkoordinierten Entwicklung der Städte entgegenzuwirken.

Als Folge der komplizierten Ereignisse im 20sten Jahrhundert war die ostdeutsche Stadtentwicklung durch einzigartige Bedingungen geprägt. Sowohl in der sozialistischen sowie in der post-sozialistischen Periode charakterisierte sich die Stadtentwicklung in Ostdeutschland ganz anders als zu der in den in Mittel-Osteuropäischen Ländern. Nichtsdestotrotz hat sich die ostdeutsche Stadtentwicklung vom westlichen Muster stark unterschieden. Die einzigartigen Eigenschaften der Stadtentwicklung in Ostdeutschland sollten ein Grund für ihre weitere Untersuchung sein.

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