

POPULATION TRENDS IN POLISH CITIES – STAGNATION, DEPOPULATION OR SHRINKAGE?

Andrzej Zborowski, Maria Soja, Anna Łobodzińska

Abstract: The authors attempt to diagnose the contemporary situation of demographic development in Polish cities after the fall of socialism in 1989. The paper focuses on selected issues and processes related to major urbanisation tendencies during the period of Poland's centrally planned economy. The depopulation of cities and urban shrinkage are presented in the context of suburbanisation, some aspects of internal migration (job migration in particular) as well as international migration. Special attention was paid to rates of population change in cities, which allowed the authors to distinguish several types of rates. Moreover, a variety of factors underlying demographic changes are also discussed.

Keywords: Polish cities, shrinking of cities, depopulation processes

Introduction

The contemporary development of cities in Europe, including Poland, is determined by a worldwide globalisation process perceived in multidimensional – social, economic, cultural and political – categories (Pieterse 1994). Globalisation processes are accompanied by the relocation of industry and investment, which leads to new regional specialisation. Moreover, the increasing importance of local development accompanying globalisation enables a debate on the global–local dialectic (Dicken 1994; Conti 1997). The aforementioned processes exert a significant impact on the development dynamics of cities. On the one hand, they create powerful metropolitan centres linked with each other within the network of capital and information flows (Sassen 2001), on the other – stagnant or weakly developing cities and towns located in intermetropolitan areas or peripheral regions (Storper, Scott 1992; Amin, Thrift 1994).

An understanding of contemporary development dynamics of cities, particularly in Eastern and Central Europe, involves a lesson in the recent history of this region. Following the Second World War, European countries began to follow two vastly different development trajectories, which was connected with the socialist political and economic order established in Eastern and Central Europe. Forms of urban

development were different in Western Europe and the Eastern Bloc countries as well (Hamilton 1979; Sheppard 2000). Following strenuous industrialisation, so-called “socialist cities” emerged in the vicinity of large industrial plants, whereas in the old urban centres a socialist suburban zone – high-rise housing estates built using the technology of prefabricated concrete panel blocks – was formed instead of classical suburbs. These housing estates were located adjacent to a relatively sparsely populated and underdeveloped (in terms of infrastructure) urban-rural fringe, where, with few exceptions (e.g. Budapest), suburbanisation processes did not exist. The inner parts of cities usually were not renewed, which resulted in the deterioration of old housing stock. Still, the residents did not move out of the old and neglected buildings in city centres due to a severe housing shortage. However, as a result of a filtering process, the decline of the social status of inner city dwellers was observed (Zborowski 2005). Throughout the 1970s and 1980s, younger and better-educated inner city dwellers were moving to high-rise housing estates, where they encountered large numbers of wage migrants from villages and small towns.

The disparity between the spatial, functional and morphological systems of Western and “socialist” urban regions have always been visible in their population density profiles. In the Central and Eastern Europe cities, the immense difference between the population gradient of high-rise housing estates and the surrounding urban-rural fringe draws attention (Ingram 1998; Zborowski 2000).

Eastern and Central European cities underwent numerous changes when new political and economic conditions were established after the fall of the Eastern Bloc in 1989 (Enyedi 1998; Fassmann, Lichtenberger 1996; Liszewski 2000; Węclawowicz 2003; Zborowski 2005). The most important of these changes were the collapse and replacement of the nationalized economic sector with a market-oriented economy, deindustrialisation of the urban economy and its replacement with the tertiary sector, reconstruction of local governments, emergence of the real estate market, transformation of urban society resulting in an increase in social inequality, as well as the transition from urbanisation to suburbanisation – both residential and related to industry and services. However, the degree of radicalism in terms of economic change, rate of creation of democratic institutions, replacement of political elites, as well as the complexity of social change determined the creation of variable post-socialist “transformation paths” in different countries in Central Europe. One such path can be described as evolutionary gradualism. Another can be described as shock-therapy. Poland followed the latter type, which has had fundamental significance for urban development during the last two decades.

Apart from the political and economic transformation, the already mentioned globalisation processes, which are associated with the post-Fordist era, began to play an important role in urban development. A key element of globalisation is the internationalisation of production, interpreted as an increased significance of foreign direct investment in national economies (Fielding 1994). The internationalisation of production involves competition for the allocation of “mobile capital” between countries, regions and cities. Such processes result in the establishment of a new pattern of growth centres and the concentration of economic activity in particular regions.

This, in turn, leads to an increase in socio-economic polarisation and the emergence of new differences in city development. In Poland, foreign direct investment is usually located in the largest urban regions (Domański 2001).

Political and economic shifts affected the re-evaluation of social attitudes in formerly Eastern Bloc countries including Poland. This re-evaluation was manifested in changes in traditionally respected values such as family life, motherhood and the employment of women. These changes were reflected in a declining fertility rate, later marriages, increasing numbers of cohabiting individuals, as well as a shift from “the king-child with parents” to “the king-pair with a child” family model. However, such social changes are characteristic of the second demographic transition (van de Kaa 1987). The poor demographic situation in Poland, which during the last ten years can be described by low birth rates and natural increase rates, is additionally made worse by a lack of proper population policy and the emigration of young Poles to Western countries. The factor, which intensified this emigration, was Poland’s entry into the European Union in 2004.

All the aforementioned demographic processes can be observed in Polish urban centres, which are transitioning from constant population growth, which lasted until the end of the 1990s, to stagnation and depopulation, sometimes leading to the shrinkage of cities. The paper attempts to diagnose the contemporary situation of demographic development in Polish towns after the fall of socialism. It focuses on select issues and processes related to key urbanisation tendencies in Poland during the period of the centrally planned economy, migration during the period of political transformation (suburbanisation in particular), as well as selected issues related to internal migration (mainly wage migration). Special attention was paid to changes in rates of population growth in cities, which allowed the authors to distinguish several types of growth rates. Moreover, a variety of different factors underlying demographic changes was also of particular interest.

Research ideas on population dynamics in cities

Previous research on urban development, including the issue of population dynamics, can be divided into several different types of approaches. These types of approaches are related to the “research era” in question and accepted research norms, as well as the region to which the given research applies. The analysis of the social and economic development of cities as well as the population dynamics of cities were often a response to the emergence of barriers and destabilising phenomena and “everlasting” socio-economic growth of cities and urban regions.

The first sign of problems, which emerged on the way to urban development was the depopulation of the inner parts of major cities in the United States, which was followed by various social and economic problems including declining municipal budgets. Such problems prompted a debate on the fall of the central city. In addition to the debate, a series of new concepts appeared, namely: urban decline, urban decay, urban crisis, urban blight (Bourne 1980; Chinitz 1991; Friedrichs 1993). American urban research focused particularly on the declining importance of industry as a leading

factor of urban growth and development. Another cause underlying the central city's destabilisation was suburbanisation (Glenn 1973). Similar phenomena were observed in Western European cities as well (Lichtenberger 1986).

In the German literature in the 1980s, a new term appeared, which had not been the subject of a wider debate for many years. When the problems of economic and demographic collapse of East German cities emerged, the term was discovered again. The term was "a shrinking city". The shrinking city problem is relatively new, which both local and national governments of many cities and countries, as well as researchers dealing with this topic (within many disciplines, including geography) have to face. It is worth mentioning, that the problem of urban shrinkage, though recognised by German sociologists at the end of the 1980s, fully emerged in the latter half of the 20th century all over the world (Haussermann, Siebel 1988). As Genske and Ruff (2006) estimate, at that time it affected 400 cities with a population over 100,000. Urban shrinkage is believed to be connected with the post-industrial phase of city development, hence, its highest intensity can be observed in the most industrialised countries.

The urban shrinkage process is still poorly recognised. Thus, research in this field is characterised by a lack of established methods and definitions. This lack of terminological and methodological cohesion affects the definition of urban shrinkage. The literature offers at least two different definitions of this process. A more traditional and older definition focuses on the rapid depopulation of cities, which is most often connected with their worsening economic situation. A second, multispectral approach defines the shrinking of a city as a process related to the social, spatial and economic restructuring of urban centres, accompanied by constant population decline. According to this approach, the worsening economic situation is one of many causes of urban shrinkage, together with a demographic transition and suburbanisation. Research conducted as part of the COST Action project (2008) defines shrinking cities as: densely populated urban areas with a minimum of 5,000 residents, experiencing population decline in the large part of the city, where depopulation processes have been observed for at least two years and the demographic transformation is accompanied by symptoms of a structural crisis. International research often indicates the particularly unfavourable situation in many Central European cities, which is the result of a combination of post-socialist and post-Fordist transformations (Wiechmann 2008). This rather adverse demographic situation was presented from a broader European perspective by Turok and Mykhnenko (2007). The most often cited reasons behind urban shrinkage are: suburbanisation processes pushing the population out of central cities and into peripheries, regional job migration, decline in women's fertility resulting in a natural population decrease, and above all, economic restructuring processes connected with the post-industrial era.

In Central European countries including Poland, the geopolitical conditions connected with the collapse of the Eastern Bloc, socio-economic transformation, as well as entry to the EU are of particular importance. These processes altered the existing geopolitical and economic order and led to the formation of a new core-periphery model. It already has (and will have in the future) a fundamental significance in shaping the development of cities and demographic processes.

There is another element of urban shrinkage, which plays a significant role in demographic changes. This element is long-lasting and more intensive after the entry to the EU – the emigration of individuals from Poland to more developed EU countries. Immediately after Poland's access to the EU, the emigration increased to an unprecedented degree, mainly in the form of circulatory migration and migration for temporary stay. There is a lack of reliable statistics concerning this process. Existing estimates and approximations do not simplify the evaluation of the effect that emigration has on the depopulation of Polish cities and the intensification of urban shrinkage processes.

There is another type of research on demographic changes in cities, which is worth analysing. There exists research on depopulation issues (Parysek 2005) or demographic stagnation. Such studies have a long tradition in Eastern and Central Europe, though research on depopulation is more often conducted for rural areas than for cities (Eberhardt 1989). It is basically connected with the flow of the population to industrial centres, which took place in this part of Europe during the era of industrialisation.

Urbanisation in Poland during the socialist era

Numerous papers attempt to place Poland within the context of contemporary transformation processes taking place in Western Europe and repeat the idea that the majority of processes currently observed in Poland occurred in the West some thirty years ago. Regardless of the discussion of the accuracy of such comparisons, the disadvantage of which is perceiving development processes as linear, it is worth noting that many processes are in fact characterised by linearity – urbanisation being one of them.

The pace of urbanisation in socialist Poland was very uneven. In 1950 the share of the population living in cities was 36.1%; ten years later – 48.3%, whereas in 1970 – 52.3%. By the end of the 1980s, the urbanisation rate reached 61.7% and has remained more or less the same since that time.

It is commonly believed that urbanisation in socialist Poland was closely connected with the development of heavy industry. In fact, industrialisation played a fundamental role in urban development in all socialist countries, where the rate of urbanisation was very low at the time of the establishment of communist regimes. However, during the 40-year-period of socialist Poland, three other factors, which were influencing urban development and urban population during different phases, were observed. These were: 1) demographic changes in society, 2) territorial changes following the Second World War, 3) reforms of the administrative division of the country, particularly that in 1975, as a result of which 17 large voivodeships were replaced by 49 small units.

All the aforementioned factors influenced the pace of urbanisation both at the national and the regional level. Generally, three stages of urbanisation can be identified for the socialist era. The first one, between 1945 and 1950, was connected with both international and internal post-war migration. There were 6 million people who settled in cities during this period, $\frac{2}{3}$ of whom originated in rural areas. The second stage (1950–1975) shall be associated along with the period of strenuous industrialisation of the country. This industrialisation, forced and based on political

and ideological assumptions, based mainly on the development of heavy industry and was accompanied by rapid urbanisation of Poland. Between the years 1950 and 1975, the urban population of Poland increased from 9 to 19 million. Some 30% of this increase was the result of population inflow from rural areas, whereas 60% accounted for an incredibly high rate of natural increase. The third stage of urbanisation (1975–1989) was connected with the above mentioned administrative reform, as a result of which new smaller voivodeships were established and medium-size towns started to grow. Migration to urban areas accelerated and the population emigrating from rural areas reached 250,000 per year (Fig. 1). Young people were the most significant group among the migrants. The highest rate of emigration from rural areas was observed among women aged 20–24 and men aged 25–29.

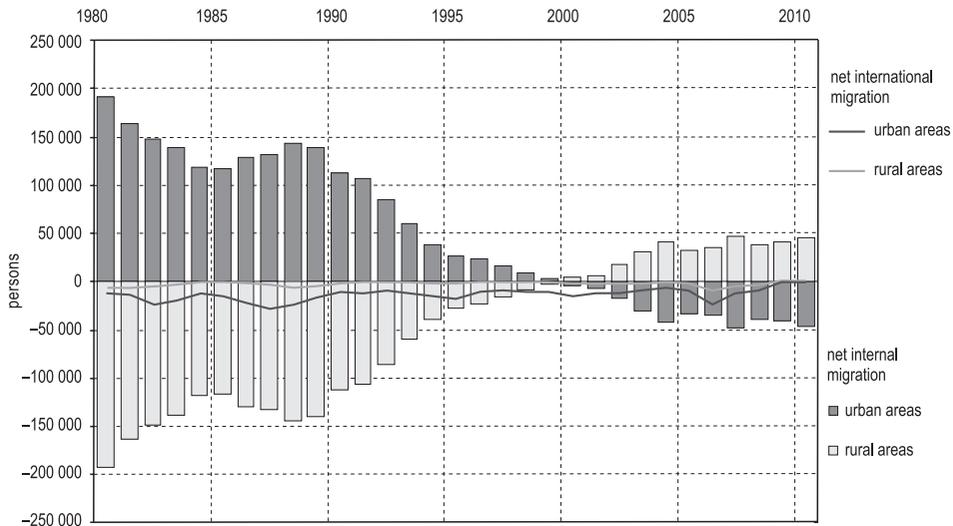


Fig. 1. Migration for permanent residence in Poland in 1980–2010

Source: own calculations based on data from Central Statistical Office.

Many migrants arrived in cities to find quickly built, though devoid of social infrastructure, high-rise housing estates. Large groups of young migrants settled in tenement houses in city centres. Following World War II, buildings in Poland's inner cities were taken away from their private owners and became government property or that of national industrial companies. This change of ownership was usually followed by a lack of investment in the modernisation of old housing stock. All financial means allocated for housing were invested in large housing estates built using prefabricated concrete panel blocks. Such a situation led to an unusual deterioration of housing stock in city centres (excluding rebuilt parts of inner cities, which had been demolished during the Second World War). Material degradation was also an effect of the socialist

strategy of social “improvement” of inner cities formerly inhabited by middle-class (e.g. Kraków). This process led to the overpopulation of flats as well as to the arrival of lower class dwellers. During the 1960s and 1970s, the young and well-educated generation living in inner cities started to move to new housing estates. This resulted in another phase of social degradation of centres, which already back then had to face the emergence of the problem of community ageing as well as lower social capital of residents. At the same time, large flats in public housing were inhabited by relatively uneducated rural migrants. As a result, at the beginning of the political transformation in 1989, the central parts of Poland’s cities were struggling with poor financial, technical, and social conditions (poverty, unemployment, ageing).

One of the most characteristic features of urbanisation underdevelopment in Polish cities during the socialist era was the formation of urban-rural fringes around large towns without actual suburbanisation. This phenomenon was the result of “administrative closure” of large Polish cities to the rural population and lasted throughout the 1950s, 1960s and 1970s. A part of the migration stream, which was not able to find a place to live in cities, settled in the urban-rural fringe. It was particularly common for relatively uneducated individuals searching for blue collar work to settle in this zone. Therefore, the urban-rural fringe in Poland traditionally concentrated a lower class population (Węclawowicz 1991), which stood in stark contrast to the social profiles of such areas in Western urban regions.

The dominance of industrial production over the development of housing, sometimes defined as defective urbanisation (Jałowicki 1989), led to a rapid increase in commuting. In the late 1970s commuters accounted for 3.3 million people, which was around 25% of all adults working outside of agriculture (Mirowski 1988). In many Polish cities, the share of commuters in the total number of working adults was over 50% (Gocał, Rakowski 1991). Transport to and from work was usually arranged by manufacturing companies (Zborowski 2002, 2011).

Migrations during the period of political transformation

Human migration is a key factor significantly affecting the demographic dynamics of Polish cities. However, the demographics of Polish cities vary substantially in terms of causes of change, directions of change, geographical range, and specific nature (migration for permanent or temporary stay). The first group of migrations are inter-regional migrations driven by economic reasons – wage migrations. Wage migrants are mainly dwellers of medium-sized post-industrial urban centres or small towns. The latter usually believe in better job opportunities in large cities. The second group are dwellers of large and medium-sized cities, who move to the urban-rural fringe thanks to suburbanisation processes. Migrations of this type take place within functional urban regions. The reasons underlying them are the improvement of housing conditions or family matters, whereas job opportunities play a less important role in this case (Gorzelał, Smętkowski 2005). The third group consists of individuals who emigrate to other countries. International migrations have a long history in the case of Poland, hence, regional patterns of population flows were created over time.

For instance, the historical region of Małopolska (Southern Poland) has a more than a 100 year-old tradition of emigration to the United States. The Upper Silesia region – part of contemporary Śląskie and Opolskie voivodeships – has a long emigration tradition to Germany. International migrations are especially linked with job searches. Some are also related to family reunions. However, one more type of migration strongly affecting changes in the urban population is migration for the purpose of temporary stay. Today, this type of migration plays an important role in cities with universities, especially large metropolitan areas, where students constitute 10% of all individuals registered as permanent residents.

As a result of labour market restrictions linked with rapid deindustrialisation, a decline in the migration flow from rural to urban areas was observed in Poland throughout the 1990s (Fig. 1). Another cause for the slowdown was a rise in the costs of living, including a surge in the prices of flats and rent rates. Moreover, the depletion of the most mobile population in rural areas contributed to a slowdown in this migration process (Bański 2006). In 2000 migrants moving from cities to rural areas outnumbered those migrating in the opposite direction for the first time (103,000 and 99,000 migrants, respectively). Since the beginning of the 21st century, the balance of migration has been less and less favourable for cities (Fig. 1).

The exodus from cities was even more severe in urban centres, where heavy industry was collapsing. Well-educated residents of such towns decided to move and look for a job in large multifunctional cities, which offered employment and decent wages at firms and institutions varying in terms of business type, size of employment and required qualifications. The scale of population outflow, considering its education structure, can be observed on the example of Starachowice, a former industrial city with about 50,000 inhabitants, located in central Poland (Warych-Juras 2007). Almost half of the individuals who had left this city had a secondary or higher education (Fig. 2). The migrants headed mostly to large cities. Kraków is perceived as a key destination for migrants. The city attracted mostly immigrants from other Polish cities, usually those with a secondary or higher education (Fig. 3).

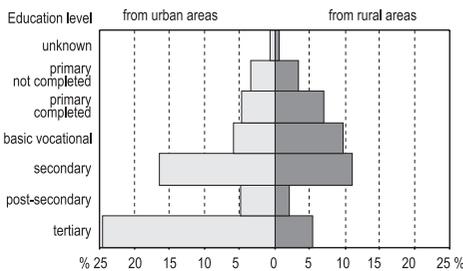


Fig. 2. Migration outflow from Starachowice by education level in 1999–2000

Source: Warych-Juras 2007.

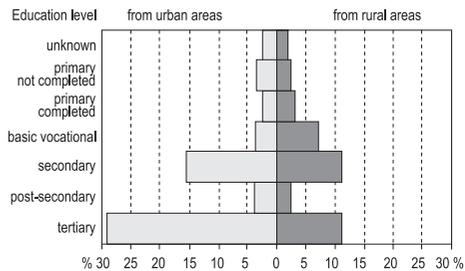


Fig. 3. Migration inflow to Kraków by education level in 1999–2000

Source: Warych-Juras 2007.

In Poland, apart from heavy outflows from small and medium-sized towns to higher-order urban centres, migration from villages to cities still does occur (Raźniak 2007). Hence, during the last few years, the trend in Poland has been for the population to concentrate and vice versa. Warszawa has an especially large migrant catchment area. Other supra-regional centres, namely: Kraków, Wrocław, Poznań and Gdańsk, have smaller catchment areas. That of Katowice conurbation is irregular and somewhat mosaic. Migration from Central and Northern Poland to the Silesia region is still observed, which can be viewed as a reminder of the formerly strong influence of Silesia on the whole of Poland.

International migration still plays an important role in population dynamics in Poland. For the last few decades, emigration has been considerably surpassing immigration. According to official data, net migration for permanent residence in 1996–2010 was negative for cities and accounted for 174,700 people. For comparison, during the same period, cities lost 291,400 inhabitants due to emigration to rural areas and “only” 48,300 as a result of natural decrease. A temporary increase in emigration occurred immediately after Poland admission to the EU (Fig. 4) as a result of the opening of the labour market to Polish workers, mainly in the United Kingdom (Gałka 2012).

Permanent migration constitutes only a part of the overall large flow of population, which consists mainly of migration for temporary stay. It is estimated that around 2 million Polish citizens temporarily reside outside of the country. A significant part of this group consists of city dwellers. The lack of reliable statistics hinders the possibility to present the profile of emigrants with respect to their point of origin – city or village. In addition, the significance of total migration (i.e. internal and international)

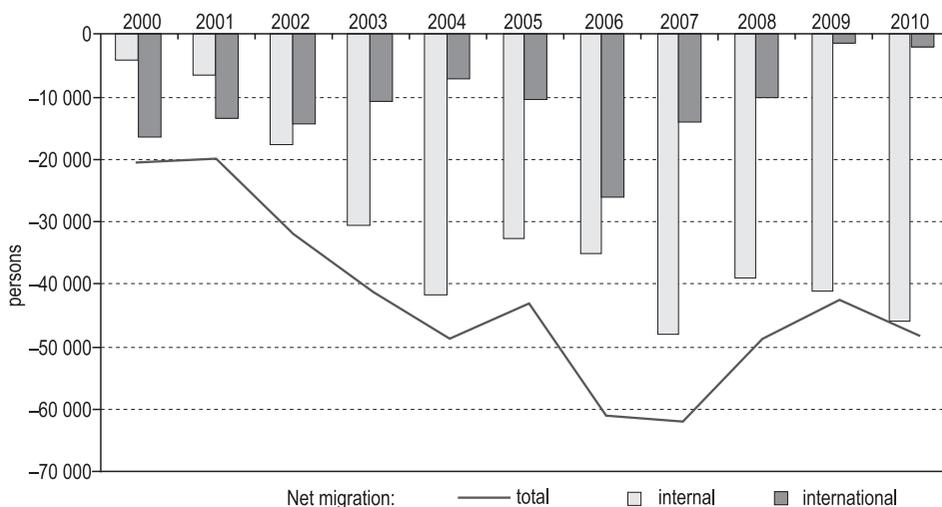


Fig. 4. Total, internal and international net migration for Polish cities in 2000–2010

Source: own calculations based on data from Central Statistical Office.

is unequal with respect to city size (Table 1). During the last decade (2000–2009), the total net migration rate per 1,000 inhabitants was -18.2 for the urban population. This index was definitely the lowest for medium-sized towns (-26.4), while the highest for large cities (-12.0). However, for small towns, the emigration rate was -19.8 .

Table 1. Net migration in Polish cities in 2000–2009

Cities according to size in thousand inhabitants	Net migration in thousands		Total net migration	
	2000–2004	2005–2009	in thousands	per 1,000 inhabitants
Small (<20)	-43.1	-53.0	-96.1	-19.8
Medium (20–100)	-77.4	-113.4	-190.7	-26.4
Large (>100)	-40.7	-91.3	-132.0	-12.0
Total	-161.2	-257.7	-418.8	-18.2

Source: basic Urban Statistics 2009, Central Statistical Office.

The rate of net migration per 1,000 inhabitants varied geographically. While the rate was positive for Mazowieckie voivodeship (21.4), it was extremely negative for Opolskie voivodeship (-60.7). Considering the negative rate of natural increase, which has been observed in the cities of the latter region during the last decade, urban shrinkage may be an issue. The shrinkage is a result of long-lasting emigration to Germany, including from Polish urban areas (Rauziński 1986).

Residential suburbanisation processes

Since the mid-90s, the outflow of young and well-educated individuals from large cities in Poland has been significant. This group of migrants consists mainly of young inner city dwellers and families from high-rise housing estates. The inhabitants of large cities began to head mainly towards new suburban areas and new apartment communities, which initiated suburbanisation processes in Poland. Research papers on changes in Polish agglomerations during Poland's political and economic transformation period note that "a large number of small communities (...) of single-family houses have appeared, creating new housing areas sprawling beyond city limits" (Korcelli 1996). In addition, these new communities are built by commercial developers, not by private individuals (Kochanowska, Kochanowski 1997). Suburbanisation processes on a larger scale can be observed in Poland since the latter half of the 1990s (Gorzelał, Smętkowski 2005; Jakóbczyk-Gryszkiewicz 2011; Jałowicki 2007; Lisowski 2005; Śleszyński 2006; Zborowski 2005; Zborowski *et al.* 2011).

There were several reasons for the activation of suburbanisation processes in Poland. Among the most important were factors pushing the population out of cities, particularly inner cities. The quality of life in inner cities started to decline immediately after the "major change" in 1989, which was the result of deepening structural

unemployment that primarily affected low-skilled workers (Warzywoda-Kruszyńska, Grotowska-Leder 1996, 1997). As a result, both inner cities and company housing estates entered the cycle of poverty (Knox 1994): rapidly decreasing incomes of households, social pathologies including alcoholism, health problems, broken homes and crime, all of which led to a decline in an already relatively low standard of living and quality of life. In a rather short period of time, the societal labelling of entire districts of cities with a high concentration of urban problems became yet another problem. Increasing rents along with a partial privatisation of public housing estates broadened the range of economic problems that poor families – more and more often dependent on welfare programs – had to face. Most cities in Poland could not provide adequate public housing stock, which meant that poor urban dwellers had to continue living in overcrowded apartments.

The poor financial and social condition of inner cities in Poland contributed to an array of different problems, which affected many aspects of urban life and contributed to the rapid deterioration of urban infrastructure and housing. These problems were further exacerbated by a lack of necessary property laws and the effects of social marginalisation processes. The aforementioned factors affected cities and led to the onset of the so-called cycle of urban degradation (Fig. 5). This cycle emerged with intensified strength in the period of political transformation and was particularly visible in inner cities as well as in some older blocks of flats, which were the property of bankrupt industrial plants. Furthermore, the cycle illustrates the close relationship between a range of urban-technical and socio-economic factors, which drove the process of pushing households out of Polish cities at an early stage of the nation's political transformation starting in 1989. The same factors also helped accelerate large-scale suburbanisation in the late 1990s in Poland and in other Eastern European countries.

The abandonment of inner cities by their young dwellers contributed to the deepening of the social recession of these districts as well as to their depopulation. Moreover, it intensified the processes of demographic ageing. The most deteriorated buildings did not attract dwellers, which resulted in a slump of real estate values. In addition, neglected tenement houses in the so-called “bad districts” of large cities started to attract – though still not on a large scale – poor immigrants, mainly from Asia and Eastern Europe (Warych-Juras, Gałka 2009). In large cities, better quality apartments began to attract university students. The steady appearance of economically weaker groups in inner cities as well as progressive pauperisation of permanent dwellers resulted in the economic decline of these districts in the form of the collapse of services and trade as well as the ubiquitous presence of second-hand shops. The low level of investment made by local governments and the private sector has only exacerbated decline.

According to data presented by Śleszyński (2006), a significant part of spatial mobility in contemporary Poland occurs within agglomerations or urban complexes. In 2003, migration within metropolitan areas covered nearly 40% of total population outflows and inflows in Poland. The largest influx of migrants occurred at the urban-rural fringe of large Polish cities, whereas central cities were losing inhabitants. Warszawa and Kraków are the only cities with positive net migration (Zborowski, Soja 2009). Suburbanisa-

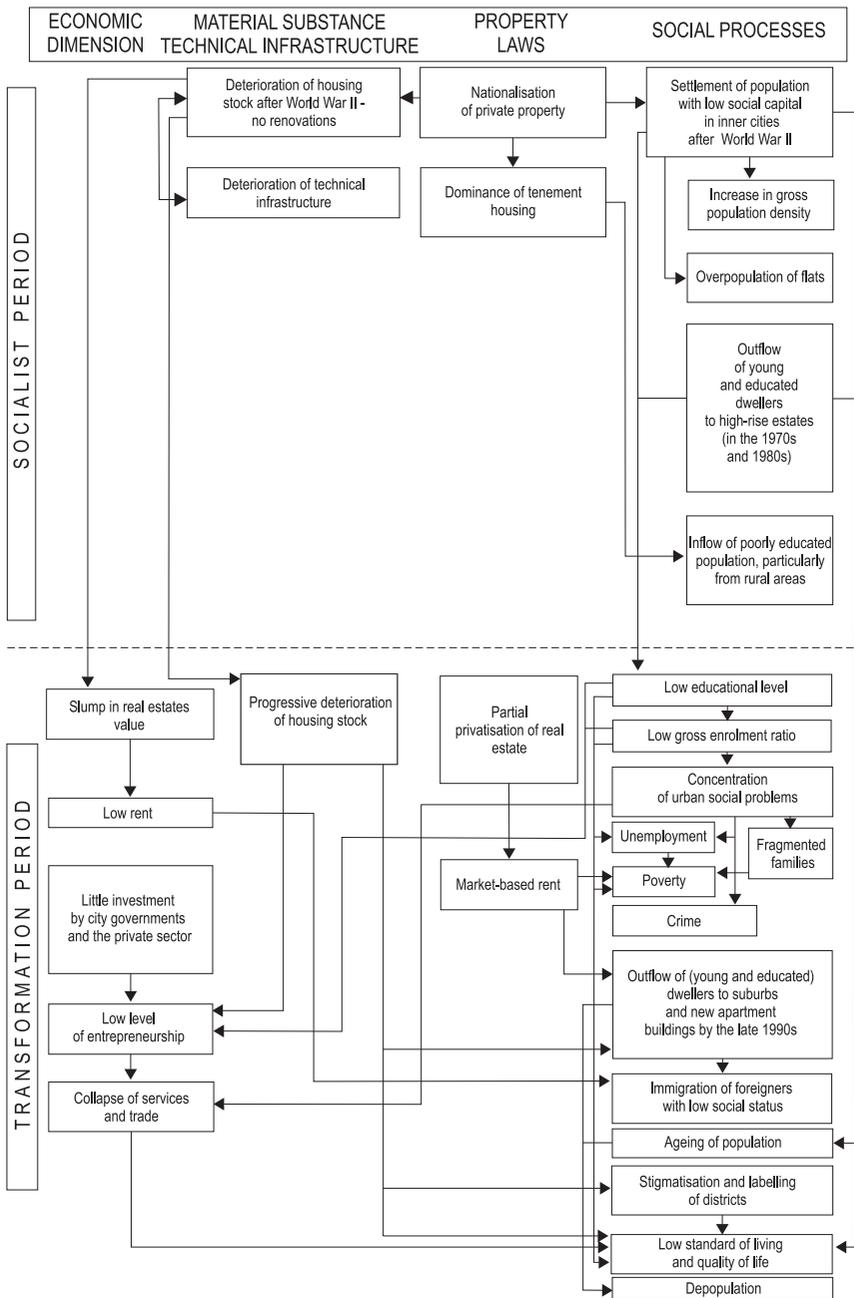


Fig. 5. Cycle of decline for the inner city in Poland

Source: Zborowski 2010.

tion escalated particularly quickly within the largest Polish metropolitan areas (Fig. 6). Indisputably, the largest suburban zone can be found around Warszawa. Less intense suburbanisation can be observed in other large cities such as Kraków, Poznań, Wrocław, Tricity (Gdańsk–Gdynia–Sopot), as well as the urban region of Bydgoszcz and Toruń. Much weaker and spatially restricted suburbanisation processes affect large cities in Eastern Poland: Białystok, Lublin and Rzeszów. Still another migration scenario can be observed in large industrial areas. The Katowice conurbation and surrounding region are two areas with a strongly negative migration balance. On the other hand, counterurbanisation processes, thus far rarely noted in Poland, can be observed on a larger scale in the Katowice metropolitan area (Zborowski 2007).

It is important to note that suburbanisation, though variable in terms of intensity, involved also smaller towns. Suburbanisation can be observed in a range of towns with 50,000 to 200,000 inhabitants. Moreover, a regional evolution of suburbanisation has been observed during the last decade. In other words, suburbanisation is occurring in urban areas in less developed Eastern Poland (Fig. 6).

Despite that suburbanisation on a larger scale is a relatively new phenomenon in Poland, it is characterised by certain structural features similar to those observed in Western Europe. For instance, the average age of the population moving to the suburbs is higher than that of migrants as a whole. The population inflow to certain suburbs located near Kraków can serve as an example of this. The main group of individuals moving from Kraków to the suburban villages located in Zabierzów municipality (western part of the urban-rural fringe of Kraków) comprises women aged 30–34 and men aged 35–39. Among those who do not originate in the Kraków urban region and move to those villages, the majority are people aged 25–29 (Raźniak 2007). During the last few years, the average age of the immigrant coming to the suburbs of Kraków has declined. For instance, in Niepołomice municipality (eastern part of the urban-rural fringe of Kraków) people aged 25–34 constituted as much as 23.0% of the total number of immigrants (Zborowski, Szeląg 2012). Another distinctive feature of people moving from cities to suburbs is usually their high level of education. The population census of 2002 revealed that generally more than 15% of newcomers in suburban municipalities had a tertiary education level. Moreover, in certain municipalities near Warszawa and Poznań, the share of those individuals exceeded $\frac{1}{3}$ of the immigrant population (Śleszyński 2006). The share of migrants with university education is constantly growing. For example, in Niepołomice municipality, their share in all individuals migrating in 2011 to the suburbs constituted 45.9% (Zborowski, Szeląg 2012).

Elements and types of population change in Polish cities

Table 2 illustrates factors driving population changes in Polish cities. During the last twenty years, internal migration for temporary stay has had a positive influence on the demographics of medium-size and large cities. This migration has a selective character. As a result of such population flows, industrial towns (the inflow of rural population), academic towns (students moving there for a temporary stay), as well as the majority of large cities experienced demographic growth even at the begin-

Table 2. Factors driving rates of population change in Polish cities

Time period	Interregional migration	International migration	Migration to suburban zones	Migration for temporary stay		Vital statistics
				international	internal	
1990–1994	++	-	0	-	+	++
1995–1999	+	-	-	-	+	0
2000–2004	-	-	-	-	++	--
2005–2007	-	--	--	---	+++	-
2008–2011	-	-	--	--	++	+

Source: authors' work.

Explanation – effect on rate of population change:

- 0 no influence
- + weak positive influence
- ++ strong positive influence
- +++ very strong positive influence
- weak negative influence
- strong negative influence
- very strong negative influence.

nine of the 1990s. By the end of the 1990s, students' temporary migrations to college towns became even more important as higher education became more popular in Poland. The student inflow peak was observed in the middle of first decade of the 21st century when the number of college students in Poland reached 2 million. Students originated from both rural and urban areas. Some medium-size cities with higher vocational schools benefited from this migration trend. However, large college towns benefited the most.

Throughout the last twenty years, all Polish cities, irrespective of their size or function, have been losing population due to international migration, both for permanent and temporary stay. The most significant losses were observed immediately after the year 2004 when Poland entered the European Union and some EU nations opened their job markets to Poles.

Since the mid-1990s, large and later also medium-size Polish cities have been experiencing the loss of population caused by suburban migration. During the last several years, suburban migrations have also occurred in a range of small urban centres with populations below 20,000. According to Polish government statistics, Polish cities have lost more than 300,000 inhabitants to villages located in the urban-rural fringe during the last decade. As the official data include merely a part of the actual migration volume to the urban-rural fringe, the real number of migrants in this period may be estimated at 500,000. Inter-regional migration losses were also recorded in the majority of Polish cities. In 1991–1995 such migrations were still contributing to the demographic growth of cities due to the inflow of rural inhabitants. After this

period, the influx of rural residents and the residents of small and medium-size towns was observed only in the largest metropolitan areas (Warszawa, Kraków and Wrocław).

Vital statistics had a relatively weak significance in the population balance during the last two decades. At the beginning of the 1990s, only a slight natural increase was observed in cities (179,000), which in the following few five-year periods was replaced with a natural decrease. In 2008–2011 Polish cities again experienced a small natural increase. However, demographic projections indicate that this growth is only temporary, and in the near future, it will transform into a larger natural decrease. Polish cities are supposed to then enter a phase of demographic shrinkage.

While urban shrinkage has not been clearly visible during the last two decades, it has occurred in one form or another since as early as the 1980s (e.g. Chorzów in Katowice conurbation). In the 1990s it emerged in three old industrial regions in Poland (Fig. 7). Demographic regression was observed in the cities of the Katowice conurbation (coal mining and steel industry), Łódź metropolitan area (textile industry) and the Wałbrzych Industrial Region (coal mining). During the following decade, depopulation processes in many urban centres in the old industrial regions accelerated (Fig. 8). This was connected with economic regression, the closing down of mines and steelworks as well as textile factories, resulting in a rapid increase in unemployment. At the beginning of the 21st century, many of these urban centres faced the highest unemployment rate observed in the last 20 years in Poland.

The rate of registered unemployed workers in many cities in industrial regions reached or even surpassed 20.0%, e.g. in Bytom (27.1%), Siemianowice (31.1%), Świętochłowice (29.0%), Łódź (18.8%), Wałbrzych (27.7%) (Krzysztofik *et al.* 2011). The unique combination of unfavourable demographics, economic factors and social phenomena provides a basis to call these urban centres “shrinking cities”. During the last decade, certain towns in the Opole region as well as post-industrial centres in the Staropolski Industrial Region (i.e. Skarżysko-Kamienna, Starachowice, Ostrowiec Świętokrzyski) may be classified as shrinking cities.

Not only are population shifts in Polish cities linked to regional patterns but they also depend on size and the principal functions of various cities (Fig. 9). City functional types were identified on the basis of the observation of population shifts over a 40-year period (1970–2010). Such a long period of demographic change allows for the identification of key changes in rates of change prior to and after Poland’s transition from “socialism” to capitalism.

At least six types of population rates can be identified for Polish cities. During the period of the centrally planned economy and the commonly accepted in Poland model of industrial urban development, industrial centres were distinguished by remarkably high rates of population growth. Political changes, accompanied by spontaneous deindustrialisation, were followed by a collapse of the economic base of many industrial cities, which resulted in heavy population outflows. Therefore, the vast majority of these cities switched from progressive to strongly regressive rates of population change. This type of change can be defined as a post-industrial population shift. This group includes a range of small and medium-size urban centres, many of which can be identified as shrinking cities.

Central cities of metropolitan areas experience higher rates of population change and may be designated a second type. Indeed, most large cities in Poland have experienced population declines during the last decade, but so far they have been relatively small.

The third type form the cities that have functioned as capitals of voivodeships. They gained this new administrative function in 1975 and this later resulted in dynamic population growth. The national administrative reform of 1999 deprived them of this function, which for such urban centres meant socio-economic and demographic regression.

Relatively stable and moderate population rates for the analysed period were characteristic for medium-size towns with basic administrative and commercial functions (the 4th type). However, during the last decade, the majority of such towns have experienced significantly declining population rates, which can be linked to a labour market recession and the outflow of young and well-educated inhabitants to large cities.

In the era of the centrally planned economy, population decline was characteristic of two more types of cities. The 5th type included small service-oriented and agricultural-type towns with up to 10,000 inhabitants, whereas the 6th type included small towns located in the urban-rural fringe of large cities. These two types of towns experienced the loss of inhabitants, who moved to inner cities immediately after they received a flat there. Such migrations were connected with the phase of urbanisation in the cycle of urban region development (Berg *et al.* 1982; Champion 2001). Small towns, which provided services for rural areas, experienced significant development during the post-1989 transformation period due to the introduction of market mechanisms in Polish agriculture. However, currently these towns also struggle with the crisis connected with the decline of small farms and other general negative trends in Polish agriculture. Only towns located in the urban-rural fringe of large cities (Warszawa, Poznań, Gdańsk, Kraków) are growing rapidly in terms of population mainly thanks to suburbanisation.

The six identified types of demographic growth rates indicate that there is a strong diversity of rates of population change in Polish cities. Cities increasing their demographic potential, stagnant cities and even depopulating cities can be found. The latter ones have emerged on a larger scale throughout the last decade. These are usually medium-size towns or large cities. However, the absence of economic regression does not allow to include these cities in the group of shrinking cities. On the contrary, shrinking processes can be identified in post-industrial towns for which economic recession, constant emigration and social problems are typical. Some features of shrinking cities can also be observed in small towns in Opolskie Voivodeship, where long-lasting emigration has been reinforcing negative demographics in the form of the ageing of the population and leading to a further decline in birth rate. Urban shrinkage can also be observed in small agriculture-oriented and service-oriented towns, located mainly in central and eastern Poland. Finally, many former resort towns have lost population and are experiencing economic recession.

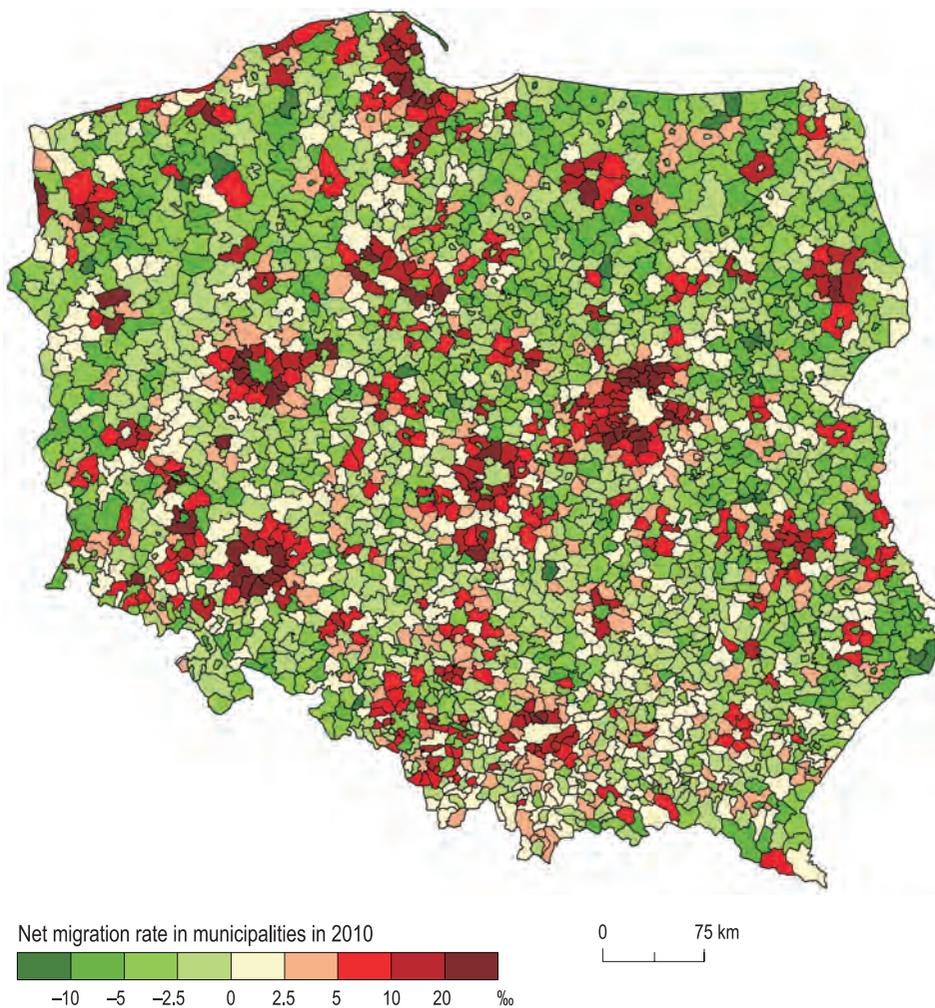


Fig. 6. Net migration rate in municipalities in Poland in 2010

Source: own calculations based on data from Central Statistical Office.

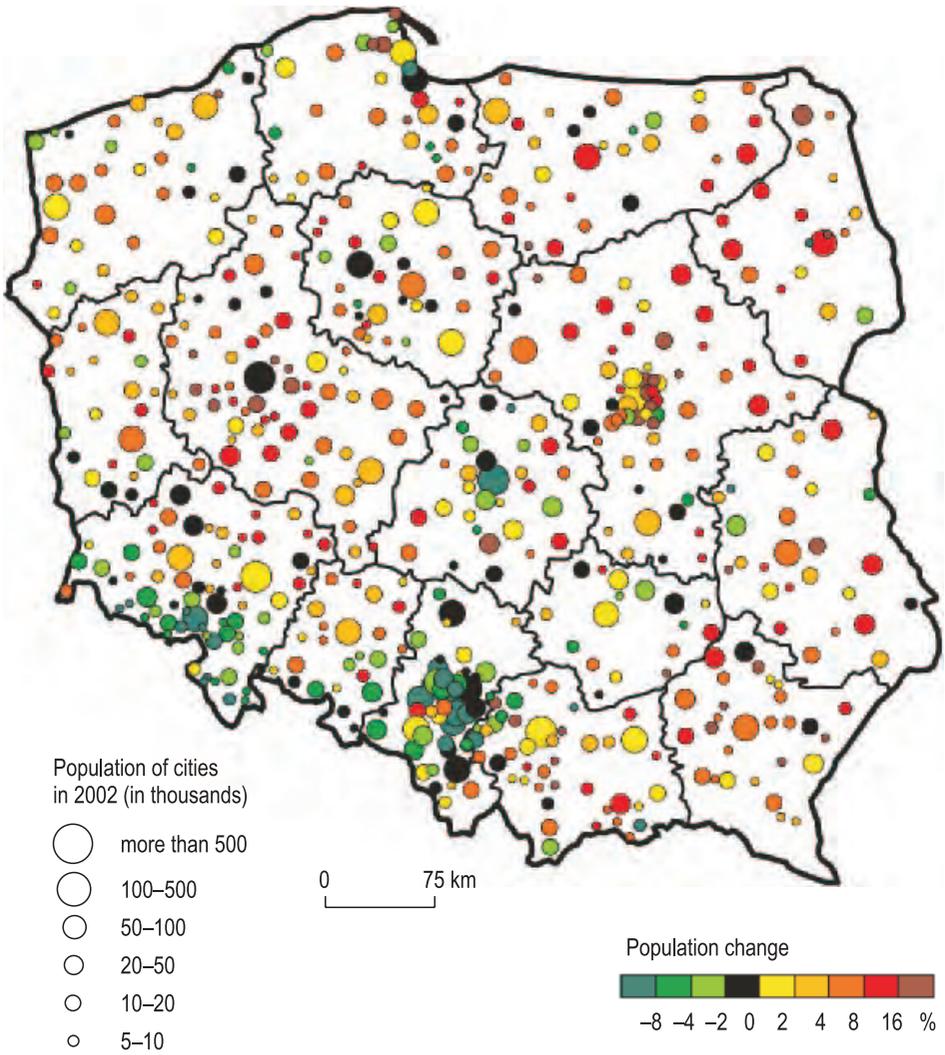


Fig. 7. Population changes in Polish cities in 1988–2002

Source: Płaziak 2005.

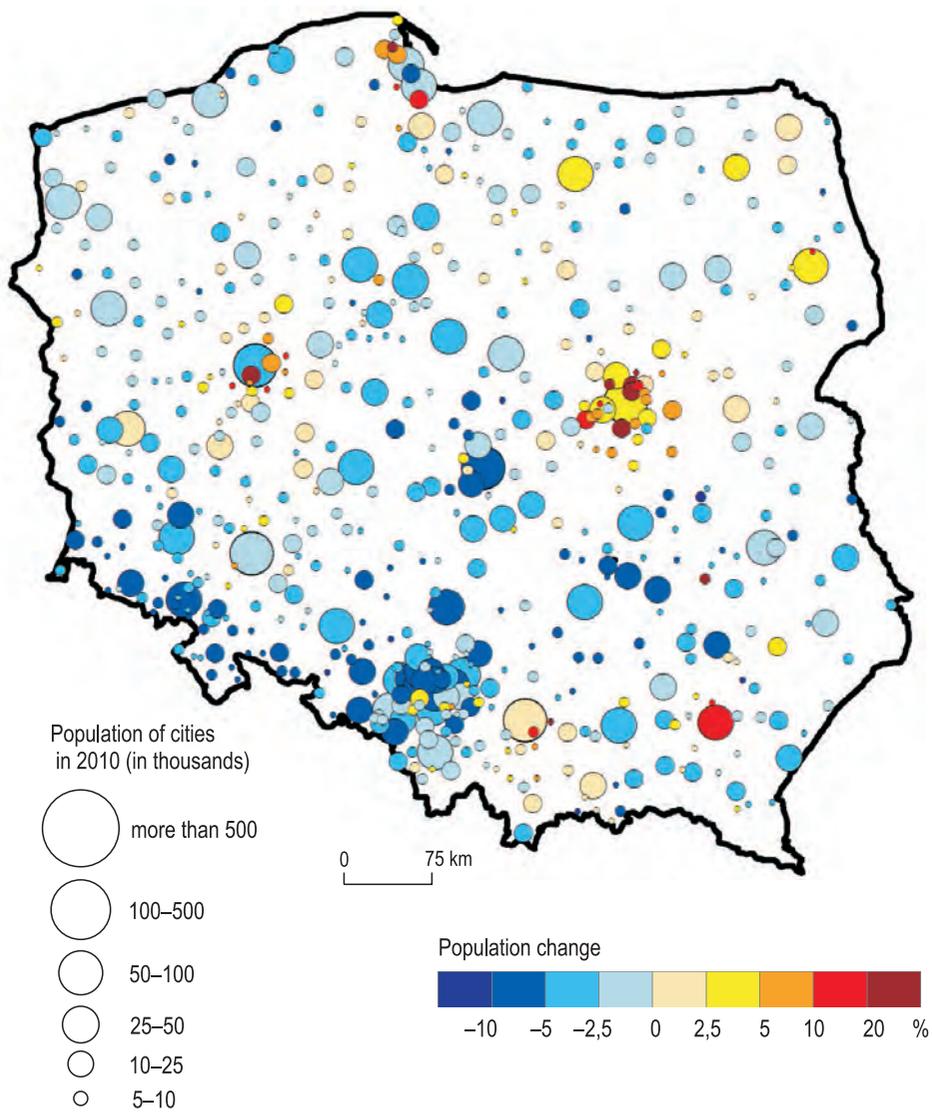


Fig. 8. Population changes in Polish cities in 2000–2010

Source: Own calculations based on data from Central Statistical Office.

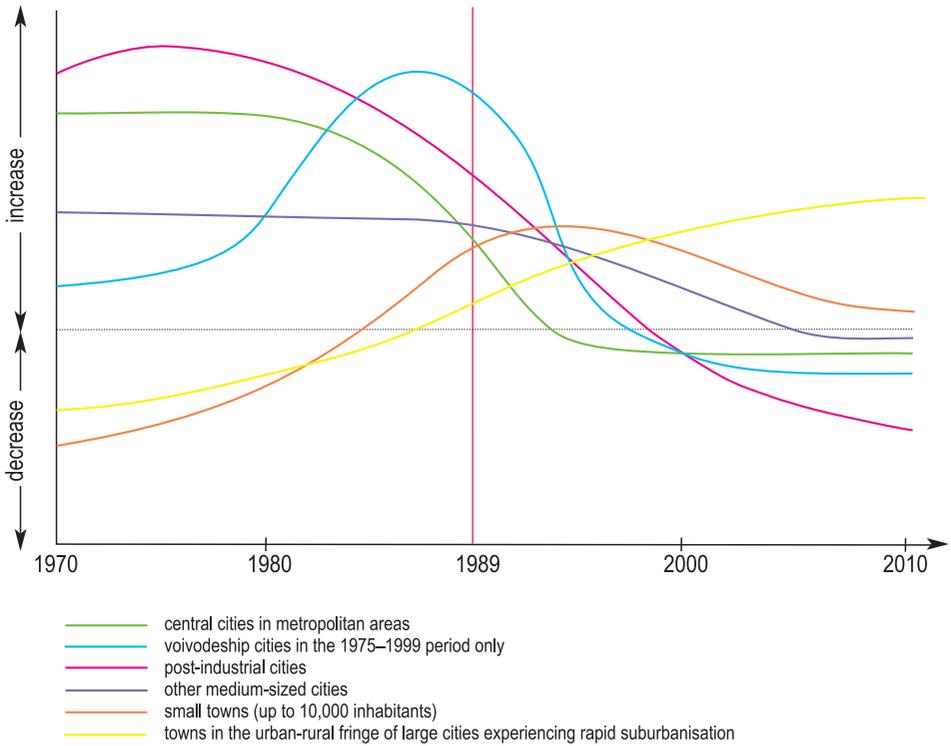


Fig. 9. Types of population change in Polish cities in the 1970–2010 period

Source: authors' work.

Conclusions

The population growth of countries, and cities in particular, is the result of a wide range of processes and phenomena. In Polish cities and in those of other Central and Eastern European countries, the political and economic past has been very important in the growth of cities in light of the primacy of the industrial city in the past. The breakdown of the old system as well as globalisation processes overlapping with political transformation resulted in enormous social and demographic changes, which affected especially cities in Poland. Two unprecedented phenomena – a post-socialist transformation and a post-Fordist transformation – have overlapped in the region.

Both processes initiated a third transition connected with a shift in social attitudes and changes in values. The latter are reflected in the second demographic transition, which although currently in its initial phase in large cities, has started to influence the procreative and family life attitudes in Poland. The geopolitical changes initiated in 2004 with Poland's entry into the European Union prompted the emergence of a new political and economic balance of power, favouring the formation of a new core-periphery model. The establishment of this model shall be qualified as a part of the fourth transformation, which affects socio-economic life in Poland and especially in cities.

All the types of transformation described herein had a fundamental significance for changes in the population of Polish cities. Suburbanisation and interregional job migration are two of the key drivers of change. The same processes underlying changes in population numbers have been observed in Western European cities. The third element, which affected the demographic condition of cities was identical for both Polish and Western cities. This element included the lowering of the female fertility rate, changes in family formation practices as well as a subsequent decline in the birth rate. However, the key difference between Central European countries such as Poland and Western Europe is the duration and high rate of decline of the aforementioned demographic parameters, formally defined as demographic shock (Grossman *et al.* 2008). The young age of the inhabitants of Polish immigration cities partially mitigates this shock. Furthermore, population changes in Polish cities are affected by one more factor – international migration – which intensified after Poland's entry into the European Union in 2004. This latest migration took the form of an exodus of young people – more than two million people by 2005 – who had emigrated for permanent or temporary stay or had participated in circulatory migrations. Urban dwellers constituted at least half of the total number of emigrants. Most emigrants left for cities in the United Kingdom and Germany but also for those in the Netherlands, Norway, Italy and other Western European countries. On the other hand, large university towns in Poland experienced a fresh influx of large numbers of students. All of the above factors have been shaping the demographics of Polish cities throughout the last twenty years.

Several different types of demographic development have been observed for Polish cities: progressive, demographically stagnant, depopulation as well as urban shrinkage. The relatively new phenomenon of urban shrinkage was caused by economic recession,

infrastructural problems and social deprivation. Urban shrinkage emerged not only in post-industrial centres but also in certain small towns with service-oriented and agriculture-oriented functions. Yet another case is that of towns in Opolskie voivodeship, which experienced the emigration of many of their residents to Germany.

References

- Amin A., Thrift N., 1994, *Globalization, Institutions, and Regional Development in Europe*, Oxford University Press, Oxford.
- Bański J., 2006, *Geografia polskiej wsi (Geography of the Polish Countryside)*, Państwowe Wydawnictwo Ekonomiczne, Warszawa.
- Berg van den L., Drewett R., Klaassen L.H., Rossi A., Vijverberg C.H.T., 1982, *Urban Europe. A Study of Growth and Decline*, Pergamon Press, Oxford.
- Bourne L.S., 1980, *Alternative Perspectives on Urban Decline and Population Deconcentration*, Urban Geography, 1 (1), 30–52.
- Champion A.G., 2001, *Urbanization, Suburbanization, Counterurbanization and Reurbanization* [in:] R. Paddison (ed.), *Handbook of Urban Studies*, Sage, London–Thousand Oaks–New Delhi, 143–161.
- Chinitz B., 1991, *A Framework for Speculating about Future Urban Growth Patterns in the US*, Urban Studies, 28 (6), 939–959.
- Conti S., 1997, *Interdependent and Uneven Development. A Systemic View of the Global-Local Dialectic*, Bulletin 47, 2, International Geographical Union, 195–204.
- COST Action, 2008, *Memorandum of Understanding for the Implementation of a European Concerted Research Action Designated as COST Action TU0803: Cities Regrowing Smaller – Fostering Knowledge on Regeneration Strategies in Shrinking Cities Across Europe*, European Cooperation in the field of Scientific and Technical Research – COST 276/08, 11 December 2008, Brussels.
- Dicken P., 1994, *Global-Local Tension: Firms and States in the Global Space-Economy. The Roepke Lecture in Economic Geography*, Economic Geography, 70 (2), 101–128.
- Domański B., 2001, *Kapitał zagraniczny w przemyśle Polski (Foreign Capital in Polish Industry)*, Instytut Geografii i Gospodarki Przestrzennej, Uniwersytet Jagielloński, Kraków.
- Eberhardt P., 1989, *Regiony wyludniające się w Polsce (Poland's Depopulating Regions)*, Prace Geograficzne, 148, IGiPZ PAN.
- Enyedi G., 1998, *Transformation in Central European Postsocialist Cities* [in:] G. Enyedi (ed.), *Social Change and Urban Restructuring in Central Europe*, Akadémiai Kiado, Budapest, 9–34.
- Fassmann H., Lichtenberger E., 1996, *Transformation in East Central Europe Real Estate, Housing and Labour Markets, Transformation Processes of Regional Systems in Slovak Republic and Czech Republic*, Universitatis Comeniana, Acta Facultatis Rerum Naturalium Universitatis Comeniana, Geographica, 37, Bratislava, 16–33.
- Fielding A.J., 1994, *Industrial Change and Regional Development in Western Europe*, Urban Studies, 31 (4–5), 679–704.
- Friedrichs J., 1993, *A Theory of Urban Decline: Economy, Demography and Political Elites*, Urban Studies, 30 (6), 907–917.

- Gałka J., 2012, *Polacy w przestrzeni społecznej Londynu u progu XXI wieku (Poles in the Social Space of London at the Turn of the 21st Century)*, Instytut Geografii i Gospodarki Przestrzennej, Uniwersytet Jagielloński, Kraków, unpublished Ph.D. thesis.
- Genske D.D., Ruff A., 2006, *Expanding Cities, Shrinking Cities, Sustainable Cities: Challenges, Opportunities and Examples*, a paper presented at the 10th IAEG International Congress, Nottingham, United Kingdom, 6–10 September 2006.
- Glenn N.D., 1973, *Suburbanization in the United States since World War II* [in:] L.H. Masotti, J.K. Hadden (eds.), *The Urbanization of the Suburbs*, Beverly Hills, CA Sage Publication, 7, 51–78.
- Gocał T., Rakowski W., 1991, *Delimitacja regionów i subregionów migracyjnych w zakresie dojazdów do pracy (Demarcation of Commuting Regions and Subregions)*, Szkoła Główna Planowania i Statystyki, Monografie i Opracowania, 332, Warszawa.
- Gorzela G., Smętkowski M., 2005, *Metropolia i jej region w gospodarce informacyjnej (Metropolitan Areas in the Information Age)*, Wyd. Scholar, Warszawa.
- Grossman K., Haase A., Rink D., Steinführer A., 2008, *Urban Shrinkage in East Central Europe? Benefits and Limits of a Cross-National Transfer of Research Approaches* [in:] M. Nowa, M. Nowosielski (eds.), *Declining Cities, Developing Cities: Polish and German Perspectives*, Instytut Zachodni, Poznań, 77–99.
- Hamilton F.E.I., 1979, *Spatial Structure in East European Cities* [in:] R.A. French, F.E.I. Hamilton (eds.), *The Socialist City: Spatial Structure and Urban Policy*, Chichester, Wiley, 263–303.
- Haussermann H., Siebel W., 1988, *Die Schrumpfende Stadt und die Stadtsoziologie, Soziologische Stadtforschung*, Kölner Zeitschrift für Soziologie und Sozialpsychologie, Sonderheft, 29, 79–94.
- Ingram G.K., 1998, *Patterns of Metropolitan Development: What Have We Learned?*, Urban Studies, 35 (7), 1019–1035.
- Jakóbczyk-Gryszkiewicz J., 2011, *Ewolucja procesów suburbanizacji w regionie miejskim Łodzi (Evolution of Suburbanisation Processes in the Łódź Urban Region)* [in:] J. Jakóbczyk-Gryszkiewicz (ed.), *Regiony miejskie w Polsce. Dwadzieścia lat transformacji (Urban Regions in Poland. Twenty Years of Transformation)*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź, 89–116.
- Jałowicki B., 1989, *Local Systems And Social Development*, Geoforum, 20, 141–150.
- Jałowicki B., 2007, *Globalny świat metropolii (Global World of Metropolitan Areas)*, Wyd. Scholar, Warszawa.
- Kaa D.J. van de, 1987, *Europe's Second Demographic Transition*, Population Reference Bureau, Inc., Population Bulletin, 42 (1), Washington DC.
- Knox P.L., 1994, *Urbanization. An Introduction to Urban Geography*, Prentice Hall, New Jersey.
- Kochanowska D., Kochanowski M., 1997, *Współczesne przemiany zagospodarowania przestrzennego dużych miast i aglomeracji miejskich w Polsce (Contemporary Changes in Spatial Management in Large Cities and Metropolitan Areas in Poland)* [in:] P. Korcelli (ed.), *Agglomeracje miejskie w procesie transformacji (Metropolitan Areas during the Transformation Process)*, Zeszyty Instytutu Geografii i Przestrzennego Zagospodarowania PAN, 42, 23–40.
- Korcelli P., 1996, *Agglomeracje miejskie w procesie transformacji – zarys problematyki (Metropolitan Areas during the Transformation Process – Key Problems)* [in:] P. Korcelli (ed.), *Agglomeracje miejskie w procesie transformacji (Metropolitan Areas during the Transformation Process)*, Zeszyty Instytutu Geografii i Przestrzennego Zagospodarowania PAN, 41, 5–12.

- Krzysztofik R., Runge J., Kantor-Pietraga I., 2011, *Paths of Shrinkage in the Katowice Conurbation. Case Studies of Bytom and Sosnowiec Cities*, Uniwersytet Śląski, Sosnowiec.
- Lichtenberger E., 1986, *The Crisis of the Central City* [in:] G. Heinritz, E. Lichtenberger (eds.), *The Take-Off Suburbia and the Crisis of the Central City*, Franz Steiner Verlag Wiesbaden, Stuttgart, 157–172.
- Lisowski A., 2005, *Janusowe oblicze suburbanizacji (Janus-type suburbanisation)* [in:] I. Jażdżewska (ed.), *Współczesne procesy suburbanizacji i ich skutki (Contemporary Suburbanisation Processes and Their Effects)*, XVIII Konwersatorium Wiedzy o Mieście, Uniwersytet Łódzki, Łódź, 91–100.
- Liszewski S., 2000, *Przemiany przestrzenno-funkcjonalne miasta socjalistycznego (Spatial and Functional Changes in the Socialist City)* [in:] R. Matlovič (ed.), *Urbánne a Krajinné Štúdie*, 3, Filozof. Fakulta Prešovskej Univ., Inst. Turizmu a Hotel. Manažmentu, Prešov, 11–18.
- Miasta w liczbach 2009 (Basic Urban Statistics 2009)*, 2011, Główny Urząd Statystyczny, Warszawa.
- Mirowski W., 1988, *Rola migracji w procesach urbanizacji kraju (Role of Migrations in the Urbanisation of Poland)* [in:] B. Jałowicki (ed.), *Procesy urbanizacji i przekształcenia miast w Polsce (Urbanisation Processes in Poland)*, Ossolineum, Wrocław, Warszawa, 29–44.
- Parysek J., 2005, *Development of Polish Towns and Cities and Factors Affecting This Process at the Turn of the Century*, *Geographia Polonica*, 78 (1), 99–116.
- Pieterse J. N., 1994, *Globalisation as Hybridisation*, *International Sociology*, 9 (2), 161–184.
- Płaziak M., 2005, *Mapa dynamiki ludności miast Polski (Population Changes in Polish Cities)*, Instytut Geografii i Gospodarki Przestrzennej, Uniwersytet Jagielloński, Kraków, unpublished Ph.D. thesis.
- Rauziński R., 1986, *Emigracja ludności rodzimej ze Śląska Opolskiego do Republiki Federalnej Niemiec w latach 1950–1983 (Emigration of the Native Population from Opole Silesia to the Federal Republic of Germany 1950–1983)* [in:] *Společno-demografické i ekonomické aspekty współczesnych migracji w Polsce (Social, Demographic, and Economic Aspects of Contemporary Migrations in Poland)*, Monografie i Opracowania SGPiS, 212, 6, 236–251.
- Raźniak P., 2007, *Przestrzenne zróżnicowanie migracji wewnętrznych ludności w polskich obszarach metropolitalnych (Spatial Differences in Internal Migration in Polish Metropolitan Areas)*, Ph.D. thesis, Instytut Geografii, Akademia Pedagogiczna, Kraków.
- Sassen S., 2001, *The global city: New York, London, Tokyo*, Princeton University Press.
- Sheppard E., 2000, *Socialist Cities?*, *Urban Geography*, 21 (8), 758–763.
- Storper M., Scott A., 1992, *Pathways to Industrialization and Regional Development*, Routledge, London, New York.
- Śleszyński P., 2006, *Demograficzny wymiar procesów suburbanizacji w Polsce po 1989 roku (Demographic Aspects of Suburbanisation Processes in Poland after 1989)* [in:] S. Kozłowski (ed.), *Żywiołowe rozprzestrzenianie się miast (Suburban sprawl)*, Warszawa, 105–124.
- Turok I., Mykhnenko V., 2007, *The Trajectories of European Cities, 1960–2005*, *Cities*, 24 (3), 165–182.
- Warych-Juras A., 2007, *Migracje ludności w miastach Polski Południowo-Wschodniej w okresie transformacji systemowej (Migrations in Cities in Southeastern Poland during the Transformation Period)*, Oficyna Wydawnicza TEXT, Kraków.

- Warych-Juras A., Gałka J., 2009, *Ocena rozmiarów i kierunku napływu obcokrajowców (imigrantów) do polskich miast, w tym ich cech społeczno-demograficznych (Assessment of immigration to Polish Cities – Social and Demographic Characteristics)* [in:] A. Zborowski (ed.), *Demograficzne i społeczne uwarunkowania rewitalizacji miast w Polsce (Demographic and Social Determinants of Urban Renewal in Poland)*, Instytut Rozwoju Miast, Kraków, 61–92.
- Warzywoda-Kruszyńska W., Grotowska-Leder J., 1996, *Wielkomijska bieda w okresie transformacji (Big City Poverty during the Transformation Period)*, Instytut Socjologii, Uniwersytet Łódzki, Omega-Praxis, Łódź.
- Warzywoda-Kruszyńska W., Grotowska-Leder J., 1997, *Wybrane aspekty koncentracji biedy w Łodzi (na przykładzie dzielnicy Śródmieście) (Selected Aspects of Poverty in Central District of Łódź)*, Przegląd Socjologiczny, XLVI, 125–146.
- Węclawowicz G., 1991, *Zróżnicowanie społeczno-przestrzenne w aglomeracji warszawskiej (1978 i 1988) (Social and Spatial Differences in the Warsaw Metropolitan Area)(1978 and 1988)*, Zeszyty IGiPZ PAN, 2, Warszawa.
- Węclawowicz G., 2003, *Geografia społeczna miast (Human Geography of Cities)*, Wydawnictwo Naukowe PWN, Warszawa.
- Wiechmann T., 2008, *Errors Expected – Aligning Urban Strategy with Demographic Uncertainty in Shrinking Cities*, International Planning Studies, 13 (4), 431–446.
- Zborowski A., 2000, *Transformacja stref rozwoju regionu miejskiego Krakowa w okresie gospodarki centralnie sterowanej (Transformation of Development Zones in Kraków during the Socialist Era)* [in:] Matlovič R. (ed.), *Urbánny vývoj na rozhraní milení, Urbánne a Krajinné Štúdie*, 3, Filozofická Fakulta Prešovskej Univ., Inštitút Turizmu a Hotelového Manažmentu, Prešov, 135–141.
- Zborowski A., 2002, *Commuting to Work in Southern Poland in the Period of System Transformation*, Bulletin of Geography, Socio-economic Series, 1, 133–144.
- Zborowski A., 2005, *Przemiany struktury społeczno-przestrzennej regionu miejskiego w okresie realnego socjalizmu i transformacji ustrojowej (na przykładzie Krakowa) (Changes in the Social and Spatial Structure of an Urban Region during the Socialist Period and the Transformation Period – Kraków Case Study)*, Instytut Geografii i Gospodarki Przestrzennej, Uniwersytet Jagielloński, Kraków.
- Zborowski A., 2007, *Reterytorializacja migracji w układzie regionalnym i lokalnym w Polsce południowo-wschodniej (Local and Regional Migrations in Southeastern Poland)* [in:] P. Bezdeń, S. Grykień (ed.), *Przekształcenia regionalnych struktur funkcjonalno-przestrzennych (Changes in Regional Functional and Spatial Structures)*, IX, Instytut Geografii i Rozwoju Regionalnego, Uniwersytet Wrocławski, Wrocław, 371–382.
- Zborowski A., 2010, *Społeczny aspekt rewitalizacji (Social Aspects of Urban Renewal)* [in:] Z. Ziobrowski, J. Jarczewski (ed.), *Rewitalizacja miast polskich – diagnoza (Urban Renewal in Poland – a Diagnosis)*, Instytut Rozwoju Miast, Kraków, 65–81.
- Zborowski A., 2011, *Changes in the Range of Influence of Medium-sized Towns in South-Eastern Poland in the Turn of the 21st Century* [in:] A. Runge, A. Kuczabski (eds.), *Medium-sized towns of central-eastern Europe in the period of economic system transformation and social changes*, Publishing House “ADNDU”, Kharkiv, 116–133.

- Zborowski A., Chaberko T., Kretowicz P., 2011, *Procesy suburbanizacji rezydencjonalnej w regionie miejskim Krakowa: przemiany społeczno-przestrzenne (Residential Suburbanisation in the Kraków Area – Social and Spatial Changes)* [in:] J. Jakóbczyk-Gryszkiewicz (ed.), *Regiony miejskie w Polsce. Dwadzieścia lat transformacji (Urban Areas in Poland. Twenty Years of Transformation)*, Wydawnictwo Uniwersytetu Łódzkiego, Łódź, 89–116.
- Zborowski A., Soja M., 2009, *Demograficzne uwarunkowania rewitalizacji w miastach polskich (Demographic Determinants of Urban Renewal in Poland)* [in:] A. Zborowski (ed.), *Demograficzne i społeczne uwarunkowania rewitalizacji miast w Polsce (Demographic and Social Determinants of Urban Renewal in Poland)*, Instytut Rozwoju Miast, Kraków, 16–60.
- Zborowski A., Szelaąg P., 2012, *Procesy suburbanizacji w mieście i gminie Niepołomice (Suburbanisation Processes in the City and Township of Niepołomice)*, Instytut Geografii i Gospodarki Przestrzennej, Uniwersytet Jagielloński, Kraków, typescript.

Andrzej Zborowski
Jagiellonian University
Institute of Geography and Spatial Management
ul. Gronostajowa 7, 30-387 Kraków
e-mail: andrzej.zborowski@uj.edu.pl

Maria Soja
Jagiellonian University
Institute of Geography and Spatial Management
ul. Gronostajowa 7, 30-387 Kraków
e-mail: m.soja@geo.uj.edu.pl

Anna Łobodzińska
Jagiellonian University
Institute of Geography and Spatial Management
ul. Gronostajowa 7, 30-387 Kraków
e-mail: anna.lobodzinska@uj.edu.pl