THE PROCESS OF URBAN SHRINKAGE AND ITS CONSEQUENCES

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Biographical note

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Abstract

Negative demographic trends are among the most important challenges of the sustainable development of cities and regions in several European countries in the 21st century. A long-term population decline in many cities is combined with a crisis of their local economies (resulting, e.g., from the collapse of traditional industries). This process, defined as urban shrinkage, manifests itself in various forms. The notion of a shrinking city is not well-defined, and the strategies of urban development very often do not take into consideration the need to adjust to shrinkage and cope with its negative consequences. The aim of this paper is to analyse the process of urban shrinkage in its three aspects: theoretical, empirical and practical. In the first part an attempt is made to give a more precise definition of a shrinking city and to discuss the current body of knowledge on this topic.
The second part offers an analysis of the scale of the process of urban shrinkage in Europe (and particularly in Poland) as well as its most important manifestations and effects. The third part offers recommendations for urban policies designed to overcome the adverse consequences of the discussed process. The paper focuses on mutual relationship between (1) the forms of urban shrinkage and regeneration strategies on the one hand and (2) the course of the systemic transformation in the post-socialist countries of East-Central Europe (including Poland) on the other. The paper is based on the results of the international research project CIRES “Cities Regrowing Smaller – Fostering Knowledge on Regeneration Strategies In Shrinking Cities across Europe” implemented under the COST Action TU0803 with the participation of scholars representing 26 countries.

**Keywords:** shrinking cities, regeneration strategies, post-communist transformation, Europe, Poland.

**JEL Classification:** R11, R58

1. **Introduction**

The late 1990s and early 2000s have been a period of fundamental socio-economic and institutional transformations most strongly affecting East-Central and Eastern Europe. They have entailed a change of many paradigms in spatial-economic sciences as well as in planning and decision-making practice. This statement also refers to urban shrinkage. This process, already present in some cities (usually old industrial centres) of Western Europe and the United States, after 1990 assumed especially large dimensions in post-communist countries (including Eastern Germany, i.e. the former German Democratic Republic). Thus, there appear new challenges: on the one hand, the need to identify the scale, rate and forms of urban shrinkage and how those features differ spatially, and on the other, to revise the urban policies pursued so far, usually designed to follow a growth paradigm. That is why shrinking cities are an object of much academic and practical discussion as well as several international research projects. Among the latter one can find:

(1) **Shrink Smart - The Governance of Shrinkage within a European Context** - a project implemented under the Seventh Framework Programme of the European Union\(^1\), and

(2) **CIRES - Cities Regrowing Smaller. Fostering Knowledge on Regeneration Strategies in Shrinking Cities across Europe** - a project implemented under Action COST\(^2\) (TU0803).

This article is largely based on the results of the second project mentioned. Its participants are representatives of many scientific disciplines from 26 states, and its coordinator is Prof. Thorsten Wiechmann from the University of Dortmund. This is a convenient point to mention that under this project it was the responsibility of the author of the article to prepare a Synopsis Report, or a report summing up the causes, scale and effects of the process of urban shrinkage in all the post-

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\(^1\) The most essential results of this project were published in Bernt et al. (2012); they can also be found at www.shrinksmart.eu.

\(^2\) COST - European Cooperation in Science and Technology.
2. Controversies over the definition of a shrinking city

In any analysis of the process discussed in this article, the point of departure should be a precise definition of a 'shrinking city'. The research carried out so far (e.g. Oswalt, 2005; Steinführer and Haase, 2007; Turok and Mykhnenko, 2007; Haase et al. 2008, 2013; Mykhnenko and Turok, 2008; Pallagst et al., 2009; Cunningham-Sabot et al., 2010; Fol and Cunningham-Sabot, 2010; Reckien and Martinez-Fernandez, 2011; Fol 2012; Bontje and Musterd, 2012; Wiechmann and Pallagst, 2012; Martinez-Fernandez et al., 2012; Wiechmann and Wolf, 2013) allow tracing three chief planes of controversy related to this definition:

(a) Does the notion of a 'shrinking city' involve exclusively its depopulation (i.e. a drop in the population number), or must there also be other indicators (e.g. a structural crisis of the economy combined with a high unemployment rate, degradation of the housing stock, a great accumulation of social problems)?

(b) Does a drop in the population number within a city's administrative limits owing to its growth in the suburban area (hence to the process of suburbanisation) justify describing this city as 'shrinking'? and

(c) How long must the period of a population decline be to justify talking of a 'shrinking city'?

In the light of the above dilemmas, it seems that the notion of a shrinking city is gradable, as shown in Fig. 1.

**Figure 1.** Typology of shrinking cities – ‘graduation’ of shrinkage
In the CIRES project, the following definition of a shrinking city was adopted, formulated by the Shrinking Cities International Research Network (SCIRN): "A shrinking city is a densely populated urban area that has on the one hand faced a population loss in large parts of it (for at least 5 years, more than 0.15% annually), and is on the other hand undergoing economic transformation with some symptoms of a structural crisis". This is the definition that will be used henceforth in this article.

3. The scale of and spatial differences in the process of urban shrinkage in Europe

Under the CIRES project, a detailed analysis was made of changes that took place over the years 1990-2010 in the population number of 7,035 European cities with more than 5 thousand inhabitants. The changes taken into consideration were not only those within a city's administrative limits, but also in the administrative units that surround it. In this way those cities were selected for further analysis in which the population decline was not due to suburbanisation. Three types of cities were distinguished: growing (a change in population number of more than 0.15% annually), stable/stagnating (from 0.15 to -0.15%), and shrinking (under -0.15%). With reference to the group of shrinking cities, the shrinkage process was divided into three types:

a) long-term;

b) short-term; and

c) episodic (cf. Fig. 1).

A detailed methodology of the selection of cities for analysis can be found in Wiechmann and Wolff (2013).

The research results (Fig. 2) show 20% of European cities to be permanently shrinking. However, an analysis of the proportion of the number of shrinking to growing cities in the individual countries is very revealing (Fig. 3). In those statistics the post-communist countries of East-Central Europe stand out in a decidedly unfavourable light. The situation is especially grim in the cities of Latvia, Romania, Lithuania, Estonia and Bulgaria.

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3 So-called Local Administrative Units (LAU2), in EUROSTAT terminology.
Figure 2. Scale of the process of urban shrinkage in Europe in 1990-2010

CITIES

- Growing (> 0.15% per year)
- Stable (-0.15 to 0.15% per year)
- Shrinking (< -0.15% per year)

Source: Wiechmann and Wolff (2013, p. 9); project CIRES (COST Action – TU0803)

Figure 3. Proportion of shrinking, stable and growing cities in European states in 1990-2010

- Shrinking (< -0.15% per year)
- Stable (-0.15 to 0.15% per year)
- Growing (> 0.15% per year)

Source: Wiechmann and Wolff (2013, p. 13); project CIRES (COST Action – TU0803)
In the light of the above data, there arises a question of the causes of such large-scale urban shrinkage in East-Central Europe. The results of studies conducted so far (e.g. European Commission, 2007; Turok and Mykhnenko, 2007; Kabisch and Haase, 2011; Reckien and Martinez-Fernandez, 2011; Haase et al., 2013; Wiechmann and Wolf, 2013) suggest that it has been produced by a combination of several factors of a demographic, economic and institutional nature. They include:

(a) a decline in the number of births and natural increase;
(b) external migrations that intensified especially after the opening of the borders on accession of a large number of those countries to the European Union (in the case of the former GDR - internal migrations, but resulting from the incorporation of this state into reunified Germany);
(c) urban-to-rural migrations (mostly in suburban areas); and
(d) transformation of the economy (in particular its de-industrialisation).

In the case of some states (Bosnia, Estonia, Romania), a motive for migration is often not only economic problems (as in most countries), but also ethnic conflicts. Worth noting is the fact that in the part of Europe under study all the dimensions of shrinkage, viz. demographic, economic and social as well as the physical degradation of the urban stock, are closely related.

4. Urban shrinkage in Poland

Poland belongs to the group of countries with a moderate, though growing, scale of urban shrinkage. In the light of Central Statistical Office (GUS) data, 295 out of the 569 cities with more than 5 thous. inhabitants suffered a permanent or temporary population loss over the years 1990-2010. Out of the 39 cities with a population exceeding 100 thous., 27 keep shrinking in demographic terms (Fig. 4, Table 1). The cities most seriously affected by this process include: Bytom, Chorzów, Katowice, Ruda Śląska, Sosnowiec, Wałbrzych, and Łódź. A detailed analysis of the shrinkage of Polish cities has recently been made by Stryjakiewicz and Jaroszewska (2011), Stryjakiewicz et al. (2012), and Krzysztofik et al. (2011, 2012).
Figure 4. Population change in Polish cities (with more than 5 thou. inhabitants) in 1990-2010

Drawing by E. Jaroszewska on the basis of GUS data

Figure 5. Change of urban and rural population in Poland in 1945-2030

Source: GUS data
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Table 1. Number of Polish cities (with more than 5 thous. inhabitants) recording population loss in 1990-2010

<table>
<thead>
<tr>
<th>City size (number of inhabitants)</th>
<th>Total number of cities</th>
<th>Cities with population loss</th>
<th>Cities with population loss exceeding 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>number</td>
<td>%</td>
</tr>
<tr>
<td>5,000-9,999</td>
<td>175</td>
<td>84</td>
<td>48.0</td>
</tr>
<tr>
<td>10,000-19,999</td>
<td>174</td>
<td>84</td>
<td>48.3</td>
</tr>
<tr>
<td>20,000-49,999</td>
<td>133</td>
<td>69</td>
<td>51.9</td>
</tr>
<tr>
<td>50,000-99,999</td>
<td>48</td>
<td>31</td>
<td>64.6</td>
</tr>
<tr>
<td>100,000-199,999</td>
<td>22</td>
<td>14</td>
<td>63.6</td>
</tr>
<tr>
<td>200,000 and more</td>
<td>17</td>
<td>13</td>
<td>76.5</td>
</tr>
<tr>
<td>Total</td>
<td>569</td>
<td>295</td>
<td>51.8</td>
</tr>
</tbody>
</table>

Source: GUS data

According to forecasts, the urban population in Poland will keep declining (Fig. 5). However, it is hard to determine with any accuracy what part in this process will be played by suburbanisation and what by actual depopulation and multi-aspect shrinkage. In particular, the issues that require an in-depth analysis are the economic and social dimensions of shrinkage and its effect on the housing market and physical degradation of the urban stock.

5. Shrinkage as a challenge for urban policy

Urban shrinkage is a big challenge for administrative and self-government authorities of various levels (from the European Union, through the national and regional levels to the local one), and for planning institutions. This challenge assumes a special character in the post-communist countries of East-Central Europe, where planning culture has for years relied on the steady-growth paradigm (cf. Pallagst et al., 2009; Wiechmann, 2008; European Parliament, 2008; Hollander et al., 2009; OECD, 2011; Rumpel and Slach, 2012). Strategies designed to tackle the process of shrinkage can be classified in a variety of ways. In the CIRES project, on the basis of earlier works by Danielzyk et al. (2002) and others, three most popular policy approaches were distinguished:
(a) counteracting or alleviating the adverse effects of shrinkage;
(b) seeking new sources of growth; and
(c) promoting positive aspects of shrinkage.

In this article the author suggests distinguishing two types of strategy using a different criterion:

(a) strategies implemented on site, and
(b) networking strategies.

The former type embraces primarily measures intended to stimulate local entrepreneurship, reduce unemployment, and revitalise downtown or industrial areas. The other involves creating conditions for the intensification of relation with other, more advanced cities, e.g. by improving the quality of transport infrastructure and increasing the frequency of links (which can facilitate commuting to work and school, thus counteracting the outflow of the labour force).

At this point one might agree with Wiechmann's statement (2008, p. 432) that we need new scenarios and development programmes that would accommodate the process of urban shrinkage. What is necessary in those measures is the involvement of both, local actors (self-government authorities, enterprises, institutions and organisations of the business environment), as well as supra-local ones (marshal offices, the Ministry of Regional Development), backed by the European Union programmes and funds. It is essential to liberate urban policy from 'the obsession of the steady-growth paradigm', to work out suitable forms of planning ('planning for shrinkage'), and to look at urban shrinkage from the perspective of the chances and possibilities of change in the path development followed so far ('shrinkage as an opportunity' - cf. Bontje, 2004, Hollander et al., 2009).

As follows from the report drawn up for the CIRES project (Stryjakiewicz, 2013), social perception of and interest in the process of urban shrinkage in working out urban development policies and strategies in East-Central Europe are closely connected with the advancement of the institutional transformation in those countries and with the scale (intensity) of the process of shrinkage. In those countries that entered the transformation path earlier and became European Union members earlier (Czechia, Estonia, Poland, Slovakia, Slovenia, Hungary), social debate and measures taken by the authorities seem more advanced than, for example, in the Balkan states (Bosnia and Herzegovina, Bulgaria, Macedonia). Generally, predominant in the countries of East-Central Europe are strategies intended to overcome (ameliorate) the negative effects of shrinkage ('mitigation strategies'), while strategies oriented towards development in the conditions of shrinkage are still absent. The 'shrink smart' rule and the skilful adjustment of cities to shrinkage that it involves are still a matter of urban policies of the future in this part of Europe. There should
be various groups of beneficiaries involved in their formulation (EU institutions, central governments, local authorities, academic circles, business people, non-governmental organisations). An important, so far poorly articulated, element of those discussions should be migration policy.

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