Urban decline within the region: Understanding the intra-regional differentiation in urban population development in the declining regions Saarland and Southern-Limburg

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**ABSTRACT** – Although we increasingly understand why population decline occurs in a number of regions, little is known about the causes of differentiated levels of decline between municipalities in the same region. We address the causes of intra-regional differentiation in decline in the Dutch region Southern-Limburg. The quantitative and qualitative analyses reveal that in the period 1900-1945, the differentiation in population development was the result of the economic boom and bust periods of the mining areas. After 1945 (except for 1985-1989) however, the economic argument lost much of its relevance in explaining the differentiation: intra-regional differentiation results in particular from intra-regional and international migration and these flows are steered predominantly by life course motives, the uneven spatial distribution of housing opportunities and access to these opportunities within the region.

### 4.1 Introduction

In the early 21st century, urban and regional decline, or shrinkage, claimed a prominent place on the research agenda of geographers, planners and economists. While the proper terminology, definition and type of analysis are still debated (e.g. decline or shrinkage, and/or only population decline or a more complex multidimensional process), some consensus has been reached about the causes of decline. Especially structural economic factors related to globalization and economic restructuring are stressed in the explanation of why some cities and regions shrink and others grow. Other often mentioned factors are socio-demographic, socio-spatial and political factors, but these are most often given a secondary role. In the introduction chapter of the recently published edited volume ‘Shrinking Cities’ for instance it is stated: “The causes of this urban decline are complex, but in many ways they can be understood as socio-spatial manifestations of the forces of globalization (...). In most
cases (...) urban shrinkage is considered to be the effect of economic decline.” (Pallagst et al., 2014, 3) This may indeed be true for many shrinking cities and regions, but underplays the role of several other factors and it fails to explain intra-regional differentiation in decline. Why do we see significantly different local outcomes within a region that is subject to largely the same macro-economic factors throughout its territory? Even within our case study Southern Limburg, a small Dutch region of about 660 km², the pace, extent and pattern of population decline has differed considerably between municipalities over the past decades. Specific local factors must play a role here too, which will be highlighted in this chapter.

The region of Southern-Limburg as a whole and its sub-region Parkstad Limburg have already been the focus of attention of several recently published articles and books (see Latten and Musterd, 2009; Haartsen and Venhorst, 2010; Verwest, 2011; Elzerman and Bontje, 2013). However, in these publications, Southern Limburg and Parkstad Limburg are mainly analysed as a whole and less attention was given to differentiation of population development between cities and villages within the region. Also, these publications focus mostly on the policy implications of population decline. This chapter, instead, stresses the spatial differentiation in pace, extent and pattern of decline between municipalities within the region of Southern-Limburg and how this differentiation may be understood. The central research question of the analysis is: how can intra-regional differentiation in the level of urban population development in the declining region Southern-Limburg be explained? On the basis of statistical analyses and expert interviews, first the development of the region as a whole and second possible factors explaining local differentiation in population development within the region will be discussed.

4.2 Theoretical framework

We acknowledge that urban and regional shrinkage or decline is a multidimensional phenomenon (Pallagst et al., 2014) which may partly be understood as a socio-spatial manifestation of globalization (Martinez-Fernandez et al., 2012), in which population decline and economic decline are often mutually influencing each other. Globalization in itself already has highly varied impacts on different parts of the globe, as expressed in widely accepted terms like ‘glocalization’ (Swyngedouw, 1992) or ‘variegated

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h Parkstad region was until 2014 a WGR+ cooperation (law on municipal cooperation) in the former eastern mining area, consisting of 8 municipalities with explicitly defined competences, such as housing, economic development, infrastructure and spatial development.
capitalism’ (Peck and Theodore, 2007). The term ‘glocalization’ implies that local and regional institutions, economies and societies are not ‘powerless victims’ of globalization, but will influence the eventual local or regional outcome of the globalization process. The ‘variegated capitalism’ approach argues for taking ‘locality effects’, ‘glocal’ hybrids and multi-scalarity into account in the analysis of globalization. However, this differentiated impact of globalization rather affects the regional level than the local level; it materializes amongst others in differences between growing and shrinking regions. Moreover, also between shrinking cities and regions, there is an “astonishing plurality of shrinking cities’ pathways” (Grossmann et al., 2013, 222). To add to this plurality, in most shrinking regions the dynamics of the shrinkage process are definitely not equal across the region. Hoekveld (2012) mentions intra-regional differences in settlement type, population composition, the presence or absence of amenities, local image and local politics that may explain such intra-regional differences. In this chapter, two factors are stressed:

1. **Long-term, structural demographic and socio-economic changes affecting recent regional and intra-regional dynamics.** Most researchers of shrinkage so far are looking at short- and medium-term trends; however, decline in recent years or decades may partly be explained by structural changes that took place many decades or even centuries ago. Beauregard (2009) on shrinkage in the US and Turok and Mykhnenko (2007) on Europe are among the few who have been studying long-term trajectories of shrinkage. Such historical developments should be taken into account when analysing patterns of and factors behind population decline in recent decades. An example is the ‘echo effect’ in fertility and birth rates: high (or low) fertility at a certain moment often affects population dynamics one generation later (Plane and Rogerson, 1991; Goldstein et al., 2004). This in turn affects the population composition in terms of age and the share of working-age population, amongst others. Another kind of ‘echo effect’ is that economic and/or political shocks often, with some delay, impact on fertility. A clear example of this is the sharp population decline in most Central and East European countries after the fall of socialist regimes and the subsequent deep economic crisis; two decades later the demographic impact is still profound because of selective out-migration of young people and postponing or renouncing having children in times of economic uncertainty (Mykhnenko and Turok, 2008; Witte and Wagner, 1995).

2. **The role of non-economic factors in residential mobility.** The common assumption in most shrinkage research is that decline caused by migration is
rooted in economic restructuring. Following the analytical framework of Mulder (Mulder, 1993; Mulder, 1996), we see migration decisions as the result of interplay of individual preferences, individual resources and constraints, macro constraints and macro opportunities. In urban and regional shrinkage literature, (particularly economic) macro constraints and opportunities have been stressed most, while individual preferences, resources and constraints have largely been relatively neglected. However, there may be all kinds of personal reasons to move or to stay interfering with these macro constraints and opportunities, such as individual constraints (family circumstances like having school-going children or financial constraints making someone stay put) and individual preferences (preferring suburban living for instance).

How does this framework contribute to understanding intra-regional differentiation in population decline? The intra-regional differences in the historic development trajectory may particularly stem from differences in migration, whereas natural changes (such as changes in fertility or ageing) often stretch beyond the local level. At local level, it may in particular be individual preferences, resources and constraints that affect population development, as these differ from place to place within a region (see e.g. Haartsen and Venhorst, 2010; Van Steen and Pellenbarg, 2010). A trade-off can occur, for example, between the preferred living environment and/or housing type and the work location. People may – to some extent – take rising commuting costs and time for granted, as long as a good job remains accessible within reasonable travel time and they can stay in their current dwelling (Weisbrod et al., 1980; Dieleman, 2001; Chen et al., 2008). Next to looking at reasons why people move away from a shrinking place, we should be equally interested in reasons why people stay. As Richter (2013) argues, some shrinking cities shrink slower than others because these cities may be more successful in retaining their inhabitants because these identify with and feel attached to their city. The importance of location-specific social capital should thus not be underestimated (DaVanzo, 1981).

Although research about residential preferences tends to be dominated by case studies in growing cities and regions, the decisive factors for residential choice in shrinking cities and regions may be only partly different. The main differences are probably related to differentiated household compositions and preferences (less young urbanites in shrinking cities, for example), and differentiated opportunities (shrinking areas having higher vacancy rates) (see e.g. Lauf et al., 2012, for a comparison of growth and shrinkage scenarios). Figure 4.1 captures the theoretical discussion in a simple conceptual model. The main research question in this chapter is:
how can intra-regional differentiation in the level of urban population development in the declining region Southern-Limburg be explained? This question is subdivided into:

- Which factors influence the differentiation in birth- and death rates and migration rates?
- Which motives, preferences and constraints affect migration decisions of inhabitants of Southern-Limburg?

Figure 4.1. Conceptual model

4.3 Methodology

In our analysis, municipal population decline is measured as the percentage of the population lost since the moment population decline sets in in that municipality. Temporary population growth is ignored when the population size did not exceed the population size of the moment population decline started. Natural increase and migration are measured as net rates per five year average and pro mille.

Different methods are used to answer the research questions. For the first sub-question regarding the differentiation in natural development and migration, the analysis starts with comparing and describing the historic trajectories and the impact of pro mille natural changes and migration on total population development in the three economic-geographic sub-regions (the lowest administrative level data is available for in this early period, starting 1875). Subsequently, by means of a regression analysis the contribution of natural increase and net migration (independent variables) to the variance in total population development (dependent variable) is discerned, per five-year period from 1942 onwards. Since migration has a larger contribution to the variance in population decline than natural developments,
the analysis pursued into the direction of migration. Subsequently, it is investigated by means of a regression analysis which type of migration contributes to the net migration rate the most: intra-regional, inter-regional or international. This is done for the period 2000-2012 (the only years these data are available for).

After having established what type of migration is affecting the net migration rate the most, the preferences, motives and constraints affecting this type of migration are analysed (the second sub-question). Here, we turn to an individual level of analysis. For this purpose, the large-scale WoOn surveys of 2006 and 2012 are used. The 2012 data set consists of approximately 70,000 Dutch respondents, of which 19,373 in Southern-Limburg and the 2006 data set consists of 64,000 respondents, of which 13,491 in Southern-Limburg. These respondents were questioned about their residential mobility, living preferences, satisfaction with their living environment, resources etcetera. The scores are weighed for person (in order to overcome under- and oversampling of particular types of respondents) with a weight variable provided by the WoOn-Survey. It is investigated whether there are significant differences in terms of preferences, perceived opportunities and residential mobility between respondents in Southern-Limburg and the rest of the Netherlands (the regional effect) and between Southern-Limburg and growing and shrinking regions (the shrinkage effect). It would have been a major contribution to this study if the preferences, resources and constraints of the respondents of the various municipalities within Southern-Limburg could have been studied (thus indicating intra-regional differentiation in preferences, resources and constraints, or the local effect). Unfortunately, there were not enough respondents who recently moved or desire to move in each of the municipalities to make valid statements.

The findings of the quantitative analysis are scrutinized by an additional qualitative analysis. A total of 21 in-depth semi-structured interviews were conducted in summer 2013 with regional and local administrative and societal key persons. Here, all research questions were addressed: the mechanisms steering the differentiation in population decline, births, deaths and migration. The interviewees were heads of departments of spatial planning and housing of local administrations, the province of Limburg, the Parkstad cooperation, a regional housing cooperation, a regional housing market expert and two regional historians.

Case selection
The choice for Southern-Limburg (figure 4.2), is motivated by the fact that of all declining Dutch regions, here the variance in level of decline was the largest (between -18.5% and -0.9%, see figure 4.5). The spatial demarcation of the region is based on the
division of functional urban areas\(^1\) and comprises the South Limburg polycentric metropolitan area, which also corresponds with the Dutch COROP region of Southern Limburg\(^1\). For the main research question and the first sub question, the unit of analysis is the municipality. For the second sub question, the unit of analysis is the individual. We have conducted interviews in the underlined municipalities in figure 4.2 (two municipalities were not willing to cooperate).

**Figure 4.2. Case study region Southern-Limburg and investigated municipalities**

![Image of the map of Southern Limburg showing municipalities](source: Made by authors, based on CBS/Kadaster 2012.)

4.4 **Geo-spatial context**

The region has been agricultural until the end of the 19th century, the moment the mining industry started to expand rapidly. In Kerkrade, mining activity took place for centuries already, but large scale exploitation only started around 1900. Between 1889-1927 twelve mine pits were opened (figure 4.3).

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\(^1\) The demarcation of the FUA is based on ESPON (2007) Espon project 1.4.3 Study on Urban Functions. Final Report

\(^1\) COROP means COördinatiecommissie Regionaal OnderzoeksProgramma, formulated in 1971. Each COROP-region has a central core and a hinterland.
The mining industry dominated the entire sociocultural and economic structure of the eastern mining region. There were also strong ties between the mining companies and the Catholic Church and Catholic club activities (Rutten and Langeweg, 2012). In the northern part of the region there was a chemical industry associated with the state mine (later the major chemical industry DSM). The Heuvelland area (the hilly part of the region) remained predominantly agricultural, whereas the city of Maastricht was known for its ceramic industries.

From 1958 onwards, Western European coal mining regions were confronted with the arrival of cheaper coal and oil from Third World countries. The decline of the coal market was aggravated by the discovery of a large gas field in the North of the Netherlands and the competition with subsidized coal from other European countries (subsidization of Dutch coal mining was negligible in comparison to other western-European countries) (Second Chamber Parliamentary Proceedings, 1969).

In 1965, the government decided to terminate coal mining in the Netherlands and to close the mines in the same pace as new employment could be created. In this period of economic growth with already a shortage of labourers in the region (due to among other things substantial cross-border commuting towards Germany) (Bouwens, 2008), no-one doubted this aim could be achieved (van der Linden and Ruijters, 1990). Since the closures were realized even faster than originally planned (Peet, 2012), the effects of the closure of the mines were underestimated. The main goal of the
economic restructuring plan of 1965\(^k\) was to create new industrial employment, preferably a couple of large industrial businesses, and white-collar employment through the relocation of governmental institutions (Den Uyl, 1965). Yet the spatial distribution of new employment was rather uneven. Whereas the western mining area (with its already existing chemical industry) received a large automobile factory (DAF), new employment in the eastern mining area was less coherent. The relocation of governmental institutions to this area did not match quantitatively and qualitatively with the large numbers of former miners. Maastricht – although not located in the mining area – received a university, which acted as a catalyst to set off a period of growth as it attracted both students and scholars to the city.

Less cyclically-sensitive economic branches were hardly developed in the region, therefore the region suffered more than other regions from the oil crisis of 1973, which once again reduced the volume of employment (Derix, 1990). In 1978, another regional restructuring plan\(^l\) was formulated, with the goal of reducing unemployment levels and bring them to the national average. By 1990, in the western mining area and Maastricht and Heuvelland this goal was reached, in the Eastern mining area unemployment levels still exceeded the national average. Although the region recovered economically and has now a more diverse economic structure, this period of economic restructuring has had severe repercussions on the population development.

The economic development trajectory of the region had a clear impact on the spatial structure, with the urbanization and infrastructure pattern closely knit to the location of the mines. In the mining zone, the residential areas, or mine colonies, were often constructed by the mining companies or by housing corporations. This led to a strong socio-spatial dependency between the labour population and the mine (Langeweg, 2012). In contrast to the high density mining areas, the Heuvelland sub-region remained largely low-density and agricultural.

### 4.5 Sub-regional population development

In the first half of the 20th century the regional population boomed, yet this development was geographically and chronologically uneven. Figure 4.4 depicts the population development of the three economic-geographical regions within Southern Limburg between 1875-2012.

\(^k\) Nota inzake de mijnindustrie en de industriële herstructurering van Zuid-Limburg

\(^l\) Perspectievennota Zuid-Limburg
Until the second world war
Generally, the two mining regions complete the same phases in total population development, migration and natural changes until the closure of the mines, yet with a substantial time lag and difference in intensity: large scale exploitation of the coal seams started around 30 years earlier in the eastern mining than in the western mining area (resp. around 1900 and 1926). In the eastern mining area, the population quadrupled between 1875-1930, primarily because of migration. The growth of Brunssum’s population between 1900-1930 was a staggering 1250% (Philips, 1955). In the first three decades of the 20th century the net migration rate rose, and, as these migrants were young and in the family-building phase, the birth rate rose as well.

The decreasing net migration rate in the western mining area was caused by two exogenous opportunities: firstly the improvement and extension of transport for the miners, which enabled them to live further away from the mine and secondly the crisis of the 1930s which spurred out-migration (Langeweg, 2012).
Figure 4.4. Demographic development per economic-geographical region, 1875-2012, differing intervals

Rate of population change pro mille, per period

Rate of natural increase pro mille, per five years

Net migration rate pro mille, per five years

Source: Made by authors, based on Philips, 1955 and 1956; CBS, 2013a,b
Post-war period and economic restructuring

In the period between 1945 and the closure of the mines, all sub-regions experienced the same development trajectory with a baby boom followed by decreasing natural surpluses, and fluctuating net migration rates. This baby boom echoed in the period 1985-1990 with a small birth rate increase. The fertility rate decrease from the 1960s onwards was in Southern-Limburg much higher than in the rest of the Netherlands. This pattern is seen in other catholic countries and regions as well (Preston, 1986; CBS, 2003).

During the post-war period, in the mining areas the population was relatively young because of migration surpluses and the effect of the gigantic birth rates of the pre-war period. Conversely, Maastricht and Heuvelland had a relatively high number of deaths and low number of in-migrants. Little later this pattern reversed with high death rates and out-migration in the mining areas. The large wave of deceases in the mining areas resulted from the population boom between 1900-1930, the children being born in this period aged and formed a large elderly cohort of the age group 60-80 years in the 1980-2000s. In Maastricht and Heuvelland this age structure was much more even. A second factor has been the differentiated migration effects of the closure of the mines and the economic restructuring: eastern mining area municipalities had the highest number of out-migrants and these could by no means be compensated by immigration. Furthermore, the western mining area profited from the expansion of the chemical industry and the car factory, whereas the economic restructuring of the eastern mining area was rather problematic. Mining has economically and socio-culturally been much firmer rooted in the eastern mining area than in the western mining area. At the same time, the formerly ‘dormant’ municipality of Maastricht started to blossom as a consequence of the arrival of the university.

The variance in population development at sub-regional level is thus the result of the economic development with its boom period and the effects thereof on the age composition. Yet, as figure 4.4 shows, after 1950 the differences between the three regions are levelling out. We will now turn to the local level and see why this is the case.

4.6 Same sub-region, different outcome: local differentiation

As figure 4.5 shows, there are differences in degree of decline and type of development trajectory within the region, yet these do not necessarily correspond to the three economic-geographic regions. A correlation analysis between total
population development per five-year period and a dummy variable indicating whether the municipality was a mining municipality (1) or not (0) shows only significant relations in the period 1900-1930, 1950-1955 (positive) and 1985-1990 (negative). During the phase of mine closure (1965-1975), high out-migration was still compensated by natural surpluses. In the period 1985-1990 this compensation mechanism flawed, as now the surpluses turned into deficits due to the echo-effect of the skewed population composition (mentioned earlier). For the rest of the periods however, this differentiation in population development at local level must be attributable to other factors.

Figure 4.5. Municipal population decline in % and type of development trajectory

A closer look on the standardized beta coefficients between municipal 5-yearly population development and 5-yearly net migration rate and rate of natural increase reveals that for explaining population development migration is relatively more important than natural developments (table 4.1, all coefficients with p-values <0.05).

Source: made by authors, based on CBS, 2013a.
Table 4.3. Beta coefficients population development and rate of natural increase and net migration rate per period

<table>
<thead>
<tr>
<th>Population development</th>
<th>Rate natural increase</th>
<th>Net migration rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945 – 1949</td>
<td>0.433</td>
<td>0.825</td>
</tr>
<tr>
<td>1950 – 1954</td>
<td>0.222</td>
<td>0.879</td>
</tr>
<tr>
<td>1955 – 1959</td>
<td>0.261</td>
<td>0.895</td>
</tr>
<tr>
<td>1960 – 1964</td>
<td>0.280</td>
<td>0.879</td>
</tr>
<tr>
<td>1965 – 1969</td>
<td>0.281</td>
<td>0.785</td>
</tr>
<tr>
<td>1970 – 1974</td>
<td>0.147</td>
<td>0.850</td>
</tr>
<tr>
<td>1975 – 1979</td>
<td>0.333</td>
<td>0.821</td>
</tr>
<tr>
<td>1985 – 1989</td>
<td>0.705</td>
<td>0.827</td>
</tr>
<tr>
<td>1990 – 1994</td>
<td>0.629</td>
<td>0.854</td>
</tr>
<tr>
<td>1995 – 1999</td>
<td>0.518</td>
<td>0.967</td>
</tr>
<tr>
<td>2000 – 2004</td>
<td>0.591</td>
<td>0.771</td>
</tr>
<tr>
<td>2005 – 2009</td>
<td>0.816</td>
<td>0.929</td>
</tr>
<tr>
<td>2010 – 2011</td>
<td>0.459</td>
<td>0.998</td>
</tr>
</tbody>
</table>

Source: CBS, 2013b

It is investigated which type of migration (intra-regional, inter-regional or international) contributes most to net migration. Unfortunately, data are only available since 2000. Table 4.2 shows that intra-regional and international migration are the most important types. The municipalities with the highest pro mille international migration rates are those near the German border: Kerkrade, Vaals and Onderbanken, and Maastricht with its international students and Schinnen with its American military base (closed in 2011). These figures challenge the argument often made that decline is predominantly caused by domestic regional out-migration.
Table 4.4. Standardized Beta coefficients (highest coefficients in bold)

<table>
<thead>
<tr>
<th>Total migration rate</th>
<th>Intra-regional migration</th>
<th>Inter-regional migration</th>
<th>International migration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>0.540</td>
<td>0.501</td>
<td>1.047</td>
</tr>
<tr>
<td>2001</td>
<td>1.410</td>
<td>0.539</td>
<td>1.364</td>
</tr>
<tr>
<td>2002</td>
<td>0.815</td>
<td>0.319</td>
<td>0.622</td>
</tr>
<tr>
<td>2003</td>
<td>0.606</td>
<td>0.384</td>
<td>0.436</td>
</tr>
<tr>
<td>2004</td>
<td>0.810</td>
<td>0.219</td>
<td>0.601</td>
</tr>
<tr>
<td>2005</td>
<td>0.725</td>
<td>0.515</td>
<td>0.677</td>
</tr>
<tr>
<td>2006</td>
<td>0.685</td>
<td>0.447</td>
<td>0.555</td>
</tr>
<tr>
<td>2007</td>
<td>0.896</td>
<td>0.234</td>
<td>0.503</td>
</tr>
<tr>
<td>2008</td>
<td>0.733</td>
<td>0.500</td>
<td>0.564</td>
</tr>
<tr>
<td>2009</td>
<td>0.853</td>
<td>0.439</td>
<td>0.816</td>
</tr>
<tr>
<td>2010</td>
<td>0.705</td>
<td>0.407</td>
<td>0.839</td>
</tr>
<tr>
<td>2011</td>
<td>0.601</td>
<td>0.600</td>
<td>0.810</td>
</tr>
<tr>
<td>2012</td>
<td>0.534</td>
<td>0.250</td>
<td>0.741</td>
</tr>
</tbody>
</table>

Source: CBS, 2013c

As intra-regional migration has proven to be key for explaining differentiation in population development in the last decade, we will investigate this type of migration further and address our second sub-question: what are the motives, preferences and constraints affecting migration decisions of inhabitants of Southern-Limburg?

Motives and preferences of intra-regional movers

The scores of the WoOn survey indicates that of those respondents who recently moved within Southern-Limburg (n=111), 76% mentions life course arguments for their move (marriage/cohabitation, divorce/separation or leaving the parental home), which percentage is similar to that of growing Dutch regions. For those who indicated non-life course arguments, the employment motive was only for 3.2% of the respondents the primary migration motive and the education motive only for 3.4%. Decisive factors were ‘other reasons’ (40%) and last dwelling (27%). The problem with the last dwelling was that it was too small (40%) or not the right type (21%). Particularly the latter argument is found more often in Southern-Limburg than in growing regions or other declining regions in the Netherlands. Also health issues were significantly more often mentioned in Southern-Limburg than in growing regions. However, this seems to be a ‘shrinking regions-issue’, as also in the other Dutch shrinking regions health is mentioned more often.
The desire to move within the coming two years is spurred predominantly by life course arguments as well (76%). Health issues, employment, educational and housing environment motives were significantly more often mentioned as reason for a future move by Southern-Limburg respondents than other Dutch respondents. A binary logistic regression was executed on the binary dependent variable ‘desire to move’ (0 = desire, 1 = no desire) and a wide range of satisfaction variables (satisfaction with the dwelling, the neighbourhood, the population composition of the neighbourhood, nuisance, green space, traffic situation schools and shops, 0 = not satisfied, 1 = satisfied) and attachment variables (attachment to neighbourhood, municipality and region, 0 = not attached, 1 = attached). The best predictors for desire to move are satisfaction with the dwelling (odds ratio 4.226), level of attachment in the neighbourhood (3.317), level of solidarity in the neighbourhood (1.756) and satisfaction with neighbourhood’s population composition (1.625). Compared to the rest of the Netherlands, Southern-Limburg respondents attach relatively high value to neighbourhood characteristics (another regional effect). Strong social cohesion and rootedness are a form of ‘location-specific capital’ that can tie people to the area and form an endogenous constraint. A department head of the municipality in the eastern mining area explains:

“People don’t say: ‘I live in Kerkrade’, no, they say ‘I live in the neighbourhood Bleijerheide, Eygelshoven or Spekholzerheide.’”

This is a corollary of the parochial spatial structure of the region. The interviewee of a municipality in the Maastricht and Heuvelland area expressed that this strong social cohesion can be a barrier for newcomers though:

“People from outside can integrate in the local culture and social life, but not for 100%. It is like a family, you will never be considered a full member.”

Local politicians often argue that people are pushed out because of a lack of local shops and services, yet the survey shows that dissatisfaction with the local level of services is relatively unimportant for the desire to move (odds ratio 1.325). Perhaps, as pointed out by the interviewee of the Parkstad cooperation:

“It doesn’t matter where the facility is located, as long as the facility is accessible somehow. Are there parking lots, are there bicycle tracks, is there a bus?”
Constraints
So we know why they moved and want to move, but were they able to go where they preferred? The majority, that is 66.5%, of the recent movers to or within Southern-Limburg (n=228) found a dwelling in the preferred town (table 4.3), yet these percentages are smaller than those in growing regions (where 74% found a dwellings in the preferred town) and also in other declining regions (71.3%). There is thus clearly a regional effect in the possibility of finding the preferred dwelling in the preferred town. A chi square test shows that the realization of their preference does differ for different types of groups: the age group below 25 years preferred significantly more often a dwelling in another municipality (thus having experienced constraints finding a dwelling in the preferred municipality) than the other age groups. The age group of 46-64 years has significantly more often no preference for a specific municipality than the other groups. Educational level or ethnic background of the respondent does not play a discriminating role. There is particularly among the renters a substantial group of people that did not make a conscious choice but took the first dwelling available, indicating that opportunities overruled preferences (table 4.5).

Table 4.5. Realized preferences of recent movers in Southern-Limburg, 2012

<table>
<thead>
<tr>
<th>Preferred:</th>
<th>Total</th>
<th>Home-owners</th>
<th>Renters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current town</td>
<td>66.5%</td>
<td>59.2%</td>
<td>70.0%</td>
</tr>
<tr>
<td>Another town</td>
<td>9.9%</td>
<td>7.4%</td>
<td>11.2%</td>
</tr>
<tr>
<td>No preference</td>
<td>23.6%</td>
<td>33.4%</td>
<td>18.8%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Chose consciously for:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The dwelling</td>
<td>39.4%</td>
<td>58.5%</td>
<td>30.0%</td>
</tr>
<tr>
<td>The neighbourhood</td>
<td>13.6%</td>
<td>7.2%</td>
<td>16.7%</td>
</tr>
<tr>
<td>The dwelling and the neighbourhod</td>
<td>19.4%</td>
<td>17.7%</td>
<td>20.2%</td>
</tr>
<tr>
<td>No conscious choice: first available dwelling</td>
<td>27.6%</td>
<td>16.5%</td>
<td>33.1%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: BZK, 2012

A highly remarkable regional effect is found in the question why people did not move to the preferred town. 54.7% of the respondents in Southern-Limburg said they just could not find a dwelling there (as opposed to 19.5% of the respondents in growing regions and 20% in other declining regions). Another reason has been the lack of
elderly apartments, which was an important reason for respondents in both Southern-Limburg and other declining regions (a composition effect of a shrinking region).

The respondents are willing to compromise on other preferences in order to attain the dwelling they prefer: those who desire to move within two years will, when they cannot find the desired dwelling in the desired neighbourhood, rather search in another neighbourhood (50%), stay put (22%) or search in another town (19%) than give in on their dwelling preferences (7%) (just as the respondents in growing regions and other declining regions).

The spatial distribution of opportunities
The interviews made clear that there are a couple of (partly specific regional and local, and partly national) factors influencing the spatial distribution of the opportunities and people’s access to these opportunities.

The spatial distribution of housing opportunities is to a large extent the outcome of local housing policy. Until recently local political actors still thought that building new dwellings would solve the problem of population decline. Indeed, at local level this may solve population decline, yet, those newly created opportunities can spur intra-regional migration: growth in one area inevitably leads to decline in the other. Therefore, in 2013 the province issued a decree that would prevent further regional housing stock expansion. This decree dictates the demolition of an old dwelling for every newly constructed dwelling. Alternatively, if a builder does not demolish himself, he can contribute to a specific demolition fund, paying a kind of ‘waste disposal fee’ (which is in 2013 in Sittard-Geleen for instance 40,000 euro per dwelling for small building projects). This way, the total housing stock remains stable. This decree has a differentiating effect in the region: first, in Parkstad – with a higher need for housing market restructuring due to higher vacancy rates – the formula is 2:1, with two demolished dwellings for one new dwelling. Second, especially rural municipalities with high homeownership rates – being beyond the sphere of influence of the municipality – experience a discontinuation of rural housing development and argue that the urban municipalities with more housing cooperation dwellings have a comparative advantage: they can more easily relocate their renters and demolish and subsequently construct new dwellings, possibly attracting new inhabitants.

A second spatially differentiating effect on housing opportunities comes from the housing stock restructuring policy in specific parts of the region, which originally started in Parkstad but is now being applied throughout the region. The primary goals of the restructuring policy are maintaining quality of life and reducing vacancies (both
in social rental and in private sector dwellings), reducing the amount of parcels with building permits and stimulating the mobility up the housing ladder. Such policies affect both opportunities and current living satisfaction, which may have contradictory effects. On the one hand restructuring affects migration flows, as tenants of housing corporations are relocated to other dwellings, also in other municipalities. On the other hand such upgrading may increase the attractiveness of the current living area and reduce the desire to move. Indeed, the share of WoOn-respondents that think their neighbourhood has improved over the past two years is considerably higher in Parkstad than in the other municipalities. Also their desire to move is lower. Currently the housing associations take on the largest part of the demolition task. However, the interviewee of the housing association states that:

“*These housing association dwellings are not always the worst dwellings of the housing stock. Often the privately owned vacant dwellings are worse. However, we cannot get to those dwellings, as the owner is not willing to sell the property.*”

This means that sometimes dwellings are demolished that are still in a reasonable condition. In fact, 30-40% of the redundant dwellings in Parkstad is privately owned (STEC groep, 2013).

Housing associations are also creating and destructing opportunities as they sell off property to their tenants in order to be able to pay for restructuring projects and other financial obligations. The housing corporation explains:

“We have to sell our dwellings in this already troublesome market, because otherwise we cannot pay the landlord levy.”

This levy (‘verhuurdersheffing’ in Dutch) is imposed by the national government and is one of the national spending cut measures. Because this levy imposed severe problems for housing corporations in declining regions, it was decided to lower the levy for such housing associations, under the condition that the deduction must be invested in restructuring their housing stock. By adding more dwellings to the already relaxed private housing market, the housing prices can decrease even more, making it even more difficult for the other owners in the region to sell their property. This reduces housing market mobility.

**Access to opportunities**

People’s access to opportunities, and consequently their residential mobility, has been affected in several ways. The first factor was a national subsidy program, the
‘premie-A’ subsidy, introduced in 1979, which was a resource enabling low income households to purchase a dwelling. Although all low income households in the region were eligible for this subsidy, still the impact of this subsidy was spatially differentiated: as this subsidy was also available to foreigners and particularly the border municipalities Kerkrade and Vaals attracted high numbers of Germans profiting from this subsidy: up to 40% of all applicants for this subsidy in Kerkrade in 1986 were German (Second Chamber Parliamentary Proceedings, 1989), which led to substantial population growth. Other Dutch border regions attracted Germans too, but the influx of Germans was particularly high in the eastern mining area because of the housing scarcity across the border in Aachen and Herzogenrath (SAM, 1993). Towards the end of the 20th century, the direction of migration switched, which was partly the result of German households moving back to Germany (causing in turn considerable population decline in Kerkrade and Vaals), and partly because of the tax measure of deductible mortgage interests for Dutch households living abroad (Chklakova and Nicolaas, 2009).

A second factor affecting the access to opportunities has been a EU decree. The European Commission decreed that of 2011, 90% of the social rental dwellings must be allocated to households with incomes below €34,600 (price level 2014) in order for housing associations to be able to get state funding. The interviewed housing association stated that because of this measure, in combination with the lack of affordable mid-range private rental and owner-occupied dwellings in the region, households in social rental housing with higher incomes stay put, which obstructs housing mobility. Indeed, for 18% of the WoOn-respondents, these changed requirements for social housing were a reason not to move. This factor thus actually counteracts those general mechanisms steering intra-regional mobility.

Disrupting all mechanisms: the economic crisis

According to the interviewees, also the current economic crisis and accompanying housing market crisis is disrupting all general and local mechanisms we have unravelled so far. The crisis is affecting both the opportunities, the access to these opportunities and the housing preferences.

Because of the economic crisis, effective since 2008, many people may have either lost or fear to lose their jobs, leading to lower incomes and job insecurity. Also, the burden of housing expenses has risen since the start of the crisis because of a decrease of disposable income (Blijie et al., 2013). Because of these possible changes in resources, the preferences change. A profound change is the increasing demand for rental, and especially young people put off the purchase of a dwelling. An investigation of the transition from rent into homeownership in 2006 (pre-crisis) and 2012 of the
WoOn-respondents shows that in 2006, the proportion of renters moving into homeownership did not significantly differ between Southern-Limburg and the rest of the Netherlands. However, in 2012, the proportion of renters moving into homeownership almost halved in Southern-Limburg (from 31.2% to 17.4%), whereas for the rest of the Netherlands the decrease was limited (from 33.5% to 26.9%). There is thus a regional component to the impact of the economic- and housing market crisis, possibly because of the combination of the general housing market crisis with the demographically-induced low housing demand in the region.

There is however no evidence that homeowners are fleeing into rent as well, which may partly stem from problems of homeowners to sell their property as a consequence of the housing market crisis. Their dwelling may not be worth as much anymore as they had hoped. According to a municipality in the eastern mining area:

“There are people going through the process of acceptance now. But while they are going through this process, they are blocking the dwellings for young people.”

So even when these young people do have the resources, the unavailability of dwellings may prevent them to realize their preferences. At the same time, those young people that bought a house in the recent past, are most likely not able to sell without a residual debt. As the interviewee from the Parkstad cooperation puts it:

“They are really stuck down here.”

In times of crisis, home-ownership can become a type of location-specific capital that hinders migration even more than in other times. This economic situation may lead to an increasing popularity of those municipalities with concentrations of (attractive) rental dwellings and those municipalities that are actively restructuring and upgrading their rental housing stock. According to the housing market expert, it is possible though that

“As soon as the economy starts running again, these preferences will change again as well.”

4.7 Conclusion

This research made clear that for the explanation of the variance in municipal population decline the processes of deindustrialization and globalization alone are far from sufficient. Much more, the differences stem from intertwined economic-historical
mechanisms and the more recent interjection of housing market development and macro trends (figure 4.6).

Figure 4.6. Conceptual model of regional and urban decline in Southern-Limburg

Source: Made by authors

The explanation of the variance in population development differs for different periods. In the period between 1875-1945, population development and economic development are strongly interrelated: the differentiation stems from the profound impact of the advent and presence of large scale mining activity in a particular part of the region, which created employment opportunities and led to immense population growth in the first half of the 20th century and consequently an aged population and high death rates decades later.

After the second world war, the relation became more complex. Differentiation in population development is – in particular – attributable to migration, yet the mining history lost its relevance in explaining this differentiated population development. It is true though, that the closure of the mines and the concomitant process of deindustrialization in 1965-1975 led to massive out-migration, yet in many former mining municipalities, this large-scale out-migration was still compensated for by large natural surpluses in this period, which were the result of the explosive population growth in earlier decades. Only in 1985-1990, the surpluses turned into deficits with the deceases of the large birth cohort of the pre-war boom period. Therefore, even though the mining history did determine the migration- and natural developments profoundly, because of this compensating mechanism between natural
development and migration, in the majority of the periods under investigation, this relationship is not materialized in the total population development.

Rather, in the post-war period local differentiation in population development is attributable to migration, more specifically intra-regional and international migration. This behaviour stems from both general mechanisms and local and regional specificities. The WoOn-survey reveals that in the last decade these intra-regional migration motives are – in line with the general migration motives found in growing regions as well – life course arguments. Local attachment may be reason not to move, which is a bit stronger in Southern-Limburg than in growing Dutch regions. There are some regional effects to the migration preferences: in Southern-Limburg the type of the dwelling, local attachment and neighbourhood characteristics are more important in migration decisions than in growing Dutch regions.

The ability to realize their preferences was slightly lower in Southern-Limburg than in the growing regions, as the desired dwelling was not always found in the preferred town. This brings us to the importance of the availability and the accessibility of housing opportunities for the intra-regional differentiation in migration (the local effect). The effects of local and regional housing market policy are spatially differentiated: current housing restructuring policies can lead to neighbourhood improvement, as its addresses run-down areas and vacancies, which may lower the desire to move. At the same time, such restructuring processes require the relocation of households, thus spurring migration. Municipalities with high percentages of social rental in their housing stock may be able to address these problems more easily than municipalities with high percentages of homeownership. Similarly, the provincial decree of ‘for every new dwelling, one dwelling must be demolished’ is by many rural municipalities conceived as the total discontinuation of rural housing development, as these municipalities can hardly demolish in their largely privately owned housing stock.

Factors influencing the access to these housing opportunities have spatially differentiated effects too, such as the premie-A subsidy leading to population growth in the border municipalities Kerkrade and Vaals, and the recent EU decree which may in turn lower housing mobility as socially renting households may choose to stay put.

In recent times, these above-mentioned mechanisms are being overlapped and even counteracted by the current economic crisis, as the total package of migration determinants seems to be affected: because of a decrease in disposable income and purchasing power (changing resources), the demand for rental housing increases (changing preferences). Housing opportunities diminish due to the standstill in housing construction and the low level of sales of existing dwellings, which leads to
lower housing mobility. The total impact of these trends is not fully grasped yet and more research into this direction is needed.

This research showed that the intra-regional differentiation in population decline is not simply the result of differentiated ‘socio-spatial manifestations of globalization’. Rather, it is the outcome of a diverse set of drivers, affecting natural and migration rates. These drivers can both be local and regional or even national, and they can be contemporary processes or echo’s from the past, reverberating in current population developments. They may even not be that different from mechanisms we already know from growing regions. In order to grasp the underlying dynamics of this process of decline, we must therefore firstly increase our historical awareness and take a look back and see how waves of economic and demographic boom and bust of the past 100 years contribute to current population decline. Secondly, we must acknowledge that not only people leaving the region, but especially people moving around within the region are causing much of the differentiation in decline (but not all of it). Thirdly, we must not necessarily look for unique causes which only apply to such declining contexts, as general principles we know already from growing contexts may be just as well causing the differentiation (like those migration motives).